VOL. 119

Engineered for maximum performance at minimum size.

MINIATURE FLUID POWER PRODUCTS


FITTINGS


QUICK DISCONNECTS

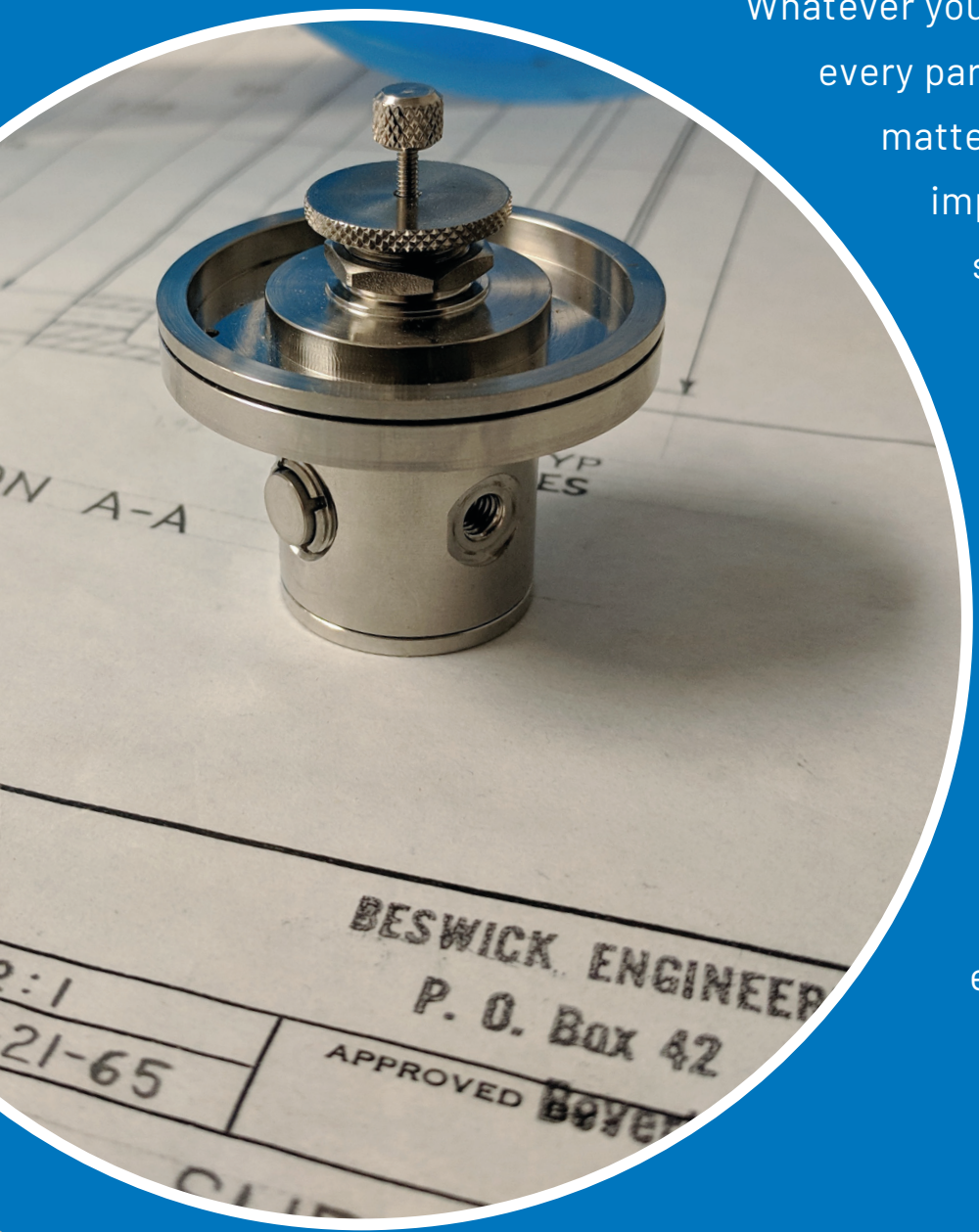

PRESSURE REGULATORS


VALVES

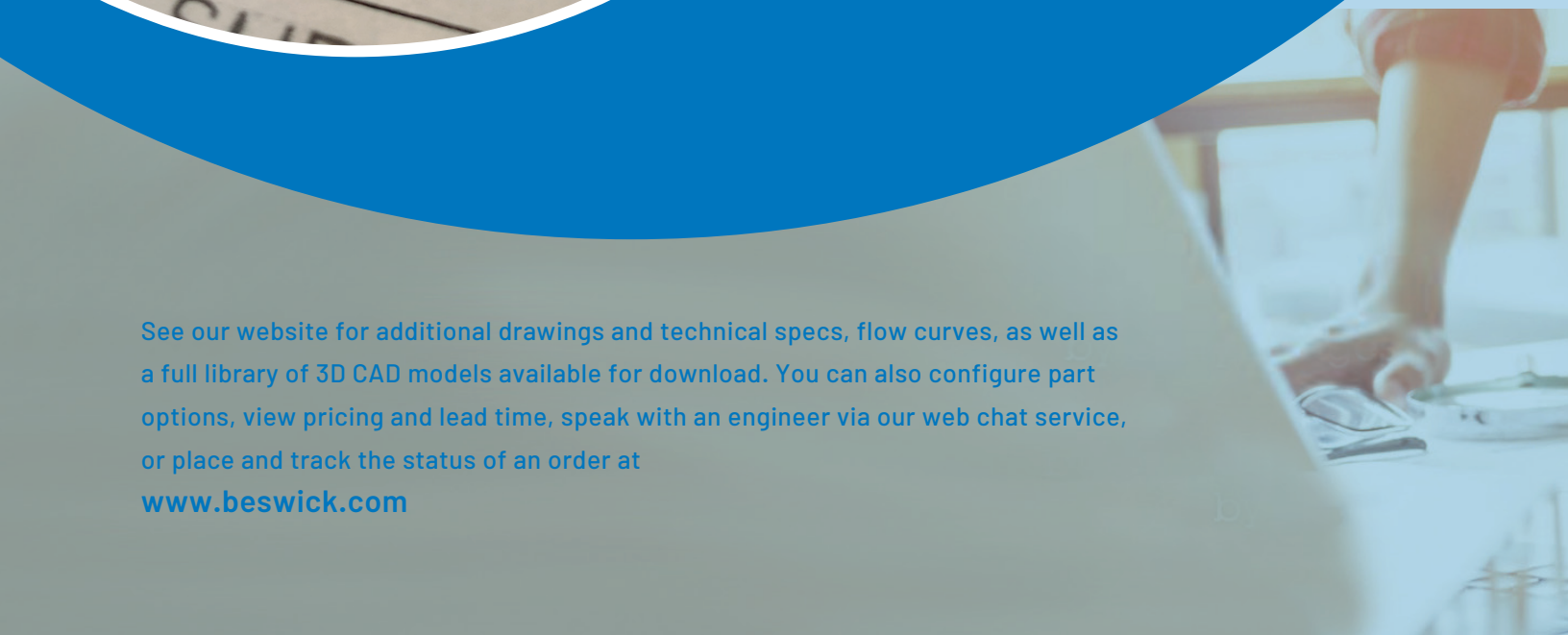
beswick engineering

www.beswick.com +1.603.433.1188

The Beswick difference



Whatever your industry, we know that every part of your product, no matter the size, is of the utmost importance. Whether you build satellites, manufacture medical devices, or design analytical instruments there is no room for error and no time to spare due to inefficient or inferior parts. You need high performance products supported by an experienced application engineering team.



See our website for additional drawings and technical specs, flow curves, as well as a full library of 3D CAD models available for download. You can also configure part options, view pricing and lead time, speak with an engineer via our web chat service, or place and track the status of an order at

www.beswick.com

At Beswick, we understand this. Each of our products, from fittings to valves, has been carefully engineered, tested, and perfected over our 55+ years in business. Our customers know they can rely upon them to provide maximum performance and space savings within critical applications, where failure is not an option. We take great pride in our innovations over the years and being on the leading edge in miniature fluid power. Many of our design innovations have become the industry standard.

We continue to innovate with our team of highly trained engineers, machinists, and technicians, improving on existing products, inventing new ones, and lending our in-depth technical support to our customers. When you specify a Beswick part number, you know you are getting the best performing product and the best technical support available.

Beswick Engineering has been providing miniature fluid power products to a diverse range of industries for over 50 years. Applications include medical, dental equipment, analytical instruments, semiconductor production machinery, aerospace equipment, 3D and inkjet printing equipment, toxic gas detection devices, CO_2 gas handling equipment, hydrogen fuel cells, laboratory equipment, packaging machinery, industrial robots and many more. Staffed with highly skilled engineers, our team works closely with your design team to find solutions to fluid handling challenges.

The Beswick story

Paul Beswick, our founder, was an engineer's engineer who was known to have many projects in various stages of development, both at home and at work. Paul loved the technical aspects of engineering and design; this truly was his life's passion.

Paul worked for Itek as a project manager and department head before founding Beswick Engineering, at the time a small engineering consulting firm, in 1964. While running his engineering consulting firm, Paul continued to broaden his technical knowledge of manufacturing techniques through work with a friend who ran a contract manufacturing business in Beverly, Massachusetts.

The Beswick miniature fluid power product line got started in the early 1970's when Paul Beswick was visiting an account to discuss a valve application. During the visit, engineers shared their frustrations over the unreliable brass fittings they were using. Paul sensed an opportunity to innovate once he saw the problems they were encountering. He offered to look into their problem and design a fitting that would not leak or loosen over time. Paul's research led to the design and development of the first 10–32 threaded, captured O-ring face seal fitting. The Beswick fittings also incorporated another innovation, a single edge barb design, which proved to be easy to use and leak proof. This level of customer support is a key part of what sets Beswick apart from the rest of the industry, and continues to this day.

The customer loved Paul's innovative designs, and with this early success, Paul shifted his focus from an engineering service company to a fluid power products company. The company focus changed, but not the commitment and passion to solve customer problems. With orders coming in for his innovative products, Paul purchased his first automatic manufacturing machines so Beswick could manufacture its own products. Among the first products designed and produced by Beswick Engineering were fittings, pressure regulators, valves, and quick disconnects.

In 1996, Beswick Engineering moved from its location in Ipswich, Massachusetts to a modern facility in Greenland, New Hampshire to support its continuous growth. The new location featured additional office space, a brand new machine shop addition, and a scenic location for the employees and their families. Since the move, the company has experienced years of record growth and profit, resulting in the opening of a branch office in Singapore in 2000.

The office in Singapore serves our growing customer population in Asia and provides Beswick with a larger international presence. Today, Beswick Engineering remains the leader in providing the largest range of miniature 303 and 316 stainless steel fittings in the world.

In addition to our expansive 10–32 threaded barb fitting line, Beswick offers pipe thread fittings, metric M3 and M5 threaded fittings, 1/4-28 and 5/16-24 fittings and more. Beswick Engineering has also expanded upon our miniature pressure regulators, quick disconnects and valve options; some of which hold patents. The product line continues to grow through Beswick's own innovation, industrial research and by working closely with customers to solve their fluid power challenges.

Paul Beswick passed away in August of 2010, but his legacy thrives here at Beswick Engineering. We continue on with our Founder's mission of passionately pursuing innovation in engineering and design, creating pioneering products, providing exceptional customer support, and actively looking for opportunities to add value and contribute to our customers' success.

Our portfolio of products

FITTINGS
P.13

Beswick offers the most complete selection of miniature fittings in the industry. We stock metric (M3 through M8), imperial (10-32 through 5/16-24), and NPT (1/16" through 1/4") threaded fittings in brass and stainless steel with tubing connections from 1/32 to 1/4 inch ID. Configurations with straight threads feature our proprietary leak tight O-ring face seal design. We stock many seal materials to handle the most extreme conditions.

Barb Fittings
P.16

Push-to-Connect Fittings
P.42

Compression Fittings
P.45

Flare Fittings
P.65

Threaded & Adapter Fittings
P.66

Fitting Plugs
P.84

Bulkhead Fittings
P.87

Luer Lock Fittings
P.89

Filters, Screens Mufflers & Breathers
P.91

Orifice Fittings
P.100

Tubing & Accessories
P.106

QUICK DISCONNECTS
P.109

Beswick snap type quick disconnects permit easy, leak free, tube connections and disconnections in a space saving package. Simply push the two halves together until they latch to connect, and slide the knurled sleeve on the internal end back to disconnect. Internal O-ring seals ensure leak tight operation. Multiple configurations with effective orifices ranging from 0.020 to 0.180 inch diameter are offered. If a quick release isn't required, then a non-latching design is available. The bayonet design is ideal for high pressure applications.

Ultra-Miniature Disconnects
P.112

Latching Quick Disconnects
P.115

Non-Latching Quick Disconnects
P.122

High Pressure Bayonet Quick Disconnects
P.126

High Flow Quick Disconnects
P.127

Multiple Line Quick Disconnects
P.130

Screw Type Quick Disconnects
P.132

PRESSURE REGULATORS P.134

Beswick's ever growing line of award winning pressure regulators sets an industry standard for miniaturization, light weight, and reliable performance. There are many different types available, from diaphragm pressure regulators to piston and back pressure regulators.

Single-Stage Diaphragm Pressure Regulators P.137

Multi-stage Diaphragm Pressure Regulators P.143

Piston Pressure Regulators P.146

Pressure Compensated Flow Controls P.149

Back Pressure Regulators P.150

Vacuum Regulators P.152

Regulator Accessories P.155

VALVES P.156

Beswick ball valves, relief valves, and stem actuated valves are 100% tested before shipment. Award winning designs provide the best performance in the smallest package size (M3, 10-32 & 1/4-28 threaded ports). Machined from brass,aluminum, or corrosion resistant stainless steel and assembled with leak-tight O-ring seals, these valves are suitable for a wide range of application conditions. All valves are incredibly small and light weight (most configurations are 2 to 25 grams).

Needle Valves P.158

Check Valves P.163

Metering Valves P.168

Flow Control Valves P.169

Rapid Pressurization Valves P.171

Slide Sleeve Valves P.172

Relief Valves P.175

Fill Valves P.179

Ball Valves P.180

Selector Valves P.183

Stem Actuated Valves P.185

Air Cylinders P.187

High performance materials

It wasn't all that long ago when fluid power products handled only compressed air. Brass was, and still is, fine for those traditional applications, but today's high performance applications often involve corrosive fluids such as DI water, solvents, inks, acids and bases. These modern applications require corrosion resistant and low out-gassing materials. While brass is not obsolete (we continue to offer brass products), there is a growing requirement for specialty alloys such as 303 and 316 Stainless Steel, as well as high performance elastomers. These materials provide corrosion resistance, low out-gassing, strength, weight reduction, temperature resistance, and durability. All of which are common considerations in the medical, semiconductor, instrumentation, toxic gas detection, inkjet printing, pharmaceutical, and biotechnology industries. Beswick offers a large selection of miniature fluid power products in 303 and 316 Stainless Steel, along with the widest selection of optional elastomers in the industry. We also have a limited offering in Titanium and Aluminum.

MATERIAL FINISHES

A bright-dip finish is standard for brass products. Our aluminum products come standard with a clear anodized finish. Our 303 and 316 stainless steel products are passivated or electropolished. Brass items can be ordered with an optional electroless nickel plated finish. Simply add "-ENP" as a suffix to the part number. Note, while we stock a large selection of nickel plated components, some are made to order, and minimum lot fees may apply. Other optional finishes and coatings can be arranged on special order basis. Contact a Beswick applications engineer to discuss your requirements.

OPTIONAL LUBRICATION

The seals on some Beswick products are lubricated during assembly. We typically specify a general purpose Silicone based grease on Buna-N, EPDM, and Fluorocarbon seals, and petrolatum on Silicone seals. We do not apply lubricant to Teflon seals. Some products can be assembled without lubricant, with no negative impact to performance or life of the part. We also stock low outgassing and oxygen service compatible, Krytox™ 240 AZ lubricant as an available option for all seals. To specify no lubrication or Krytox lubricant on a product, add the material code from the chart below as a suffix to the part number:

Optional Lubricant	Code
Krytox	-K
No Lubricant	-X

Other lubricants may also be available on special order basis. Contact a Beswick applications engineer to discuss your requirements.

INSTRUMENT CLEANING

All machined metallic components undergo a cleaning process using a mild detergent, that removes all traces of the fabrication process such as chips, coolant, oils and other unwanted contaminants. The components are then rinsed with clean water and completely dried before being immediately packaged in plastic for storage. In addition to our standard level of cleaning, we also offer an optional instrument grade cleaning level. Instrument cleaned parts go through the same cleaning steps as our standard components, however extra care is taken during handling, assembly, and testing steps to ensure that no trace contaminants are re-introduced after the parts have been cleaned. Full descriptions of each cleaning level can be found on our website:
https://www.beswick.com/resources/cleaning/

ORDERING UNASSEMBLED PARTS

Many Beswick fittings can also be ordered unassembled. If you will be performing your own secondary cleaning or coating process on the fittings prior to use, and wish to order your fittings unassembled, you may add a "-UA" suffix to the end of the part number. Please note, more complex products, such as valves, pressure regulators, and quick disconnects, cannot be ordered unassembled at this time.

Beswick's captured O-ring seal

In the 1960's, Paul Beswick originated and perfected the captured O-ring face seal used in our miniature fittings. Over the years, Beswick has further optimized this design to produce the best performance in the industry.

The advantages of Beswick O-ring seal fittings:

- Superior leak-tight seal compared to flat gasket or pipe thread fittings.
- Compensation for rough surface finish and slight hole misalignments in mating parts.
- Cleaner, more professional appearance.
- Fast installation – There is no gasket that must be positioned on the fittings and no thread sealer is required.
- Re-useable seal - There is no need to replace the O-rings each time the fitting is installed.
- Metal to metal contact – Fittings remain secure, and are less likely to loosen vs. gasket seal fittings.
- Variety of elastomeric compounds to suit most application conditions.

OPTIONAL O-RING MATERIALS

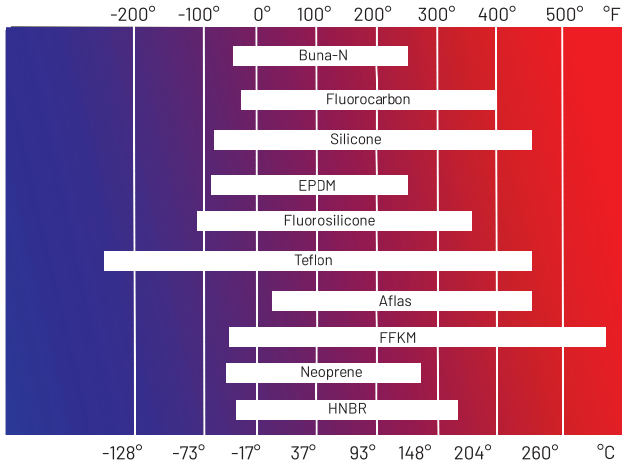
Beswick fittings are supplied with Buna-N O-rings, since Buna-N satisfies the requirements of most applications. We install the O-rings at our factory, saving you the assembly costs incurred with gasket style fittings. We also offer optional O-ring materials for applications involving temperature extremes and/or chemical reactivity. To specify an optional O-ring, add the material code from the chart below as a suffix to the part number. For example, to order the popular MLAS-1012 elbow fitting with Silicone O-rings, specify MLAS-1012-S.

OUR CUSTOM O-RING MATERIALS

We specify a general purpose grade of each elastomer. The exact compound could vary at our discretion. Should you require a specific O-ring brand or compound, such as Chemraz 505, instead of general purpose FFKM, or a specific property (e.g. FDA, NSF 61, or USP VI certification, a certain color or durometer, or an extreme temperature variant, etc.), we may be able to supply it on a custom order basis. Beswick's knowledgeable applications engineers are available to discuss your project requirements in detail and provide advice on the best sealing material for your specific application.

Optional O-ring Material	Code
Ethylene Propylene Diene Monomer (EPDM)	E
Fluorocarbon (also known as Viton®)	V
Tetrafluoroethylene Propylene (also known as TFE/P or AFLAS™)	AF
Silicone	S
Fluorosilicone	FS
Teflon® (PTFE)	T
Perfluoroelastomer (FFKM)	F
Chloroprene (also known as Neoprene)	N
HNBR	H

Approximate working temperature range for Beswick O-ring seal materials



NOTE: Temperature ranges shown are approximate. Actual temperature performance is a function of the specific elastomer compound, chemical exposure, and other factors.

For more information about the properties of each elastomer visit:
https://www.beswick.com/resources/o-ring-guide/

NOTE: Beswick stocks many of the above optional O-ring materials. Most products can be ordered with optional seal materials, but not every elastomer option is available on every product. Some materials are considered special order, and may come with extended lead time or minimum purchase requirements. Consult our website, catalog, or a Beswick applications engineer for availability.

Our services

Our staff of highly skilled engineers works closely with your design team to find solutions to fluid handling challenges.

DIRECT ENGINEERING SUPPORT

Our engineers are always available to help find solutions to your fluid handling challenges via phone, email, or live web chat.

CUSTOMIZED SOLUTIONS

Our products can be fully customized to meet your specific fluid power requirements and unique environment.

QUALITY ASSURANCE

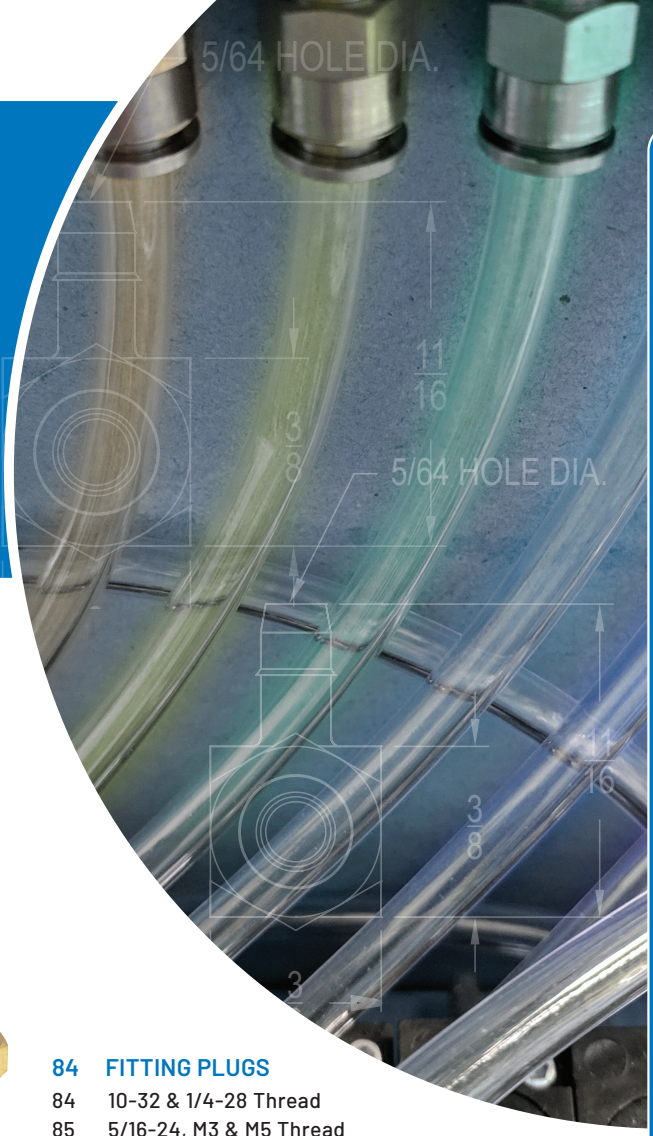
Beswick maintains tight control of the manufacturing process. Every component is produced to Beswick's exacting design specifications.

MINITATURE FLUID POWER EXPERTS

Beswick has over 50 years of experience solving miniature fluid power challenges. Many of our design innovations have become the standard of the industry. Leverage our expertise, unique design approach, and extensive know-how to solve your design challenges.

FITTINGS

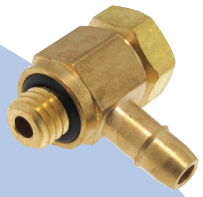
Beswick offers the most complete selection of miniature fittings in the industry. We stock metric (M3 through M8), imperial (10-32 through 5/16-24), and NPT (1/16" through 1/4") threaded fittings in brass and stainless steel with tubing connections from 1/32 to 1/4 inch ID. Configurations with straight threads feature our proprietary leak tight O-ring face seal design. We stock many seal materials to handle the most extreme conditions.



NOTE: Photos in this catalog are not actual size, For dimensions, please refer to the schematic drawings.

Suggested Tubing Sizes & Materials

To select the proper Beswick fitting for use with a particular size of tubing, refer to the left hand column of each part numbering chart in the catalog. All dimensions given are in inches, unless otherwise noted. Consult the factory for advice if you plan to use a different tubing material than what is recommended for a particular fitting. Beswick tubing is listed in this catalog, and works well with our fittings.



Barb Fittings

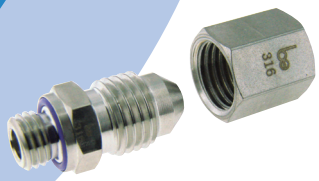
For barbed fittings, the suggested tube size refers to the inside diameter (ID) of the tubing. We recommend using tubing with good memory characteristics, such as 85 to 95 durometer (shore A) polyurethane or vinyl. Beswick barb fittings may be suitable for use with some softer tubing materials, such as 50 durometer Silicone or Fluorocarbon, depending on your specific application conditions. Consult with a Beswick applications engineer for more information.

Push-to-Connect Fittings

For push to connect fittings, the suggested tube size refers to the outside diameter (OD) of the tubing. Push-to-connect fittings are typically used with higher durometer plastic tubing materials such 50-65 durometer (shore D) Nylon, PEEK®, Polyethylene, and Teflon®, or 90+ durometer (shore A) polyurethane.

Compression Fittings

For compression fittings, the suggested tube size refers to the outside diameter (OD) of the tubing. Compression fittings can be used with higher durometer plastic tubing materials such 50-65 durometer (shore shore D) Nylon, PEEK®, Polyethylene, and Teflon®, or with metallic tubing, such as copper, aluminum, or stainless steel.



Flare Fittings

For flare fittings, the suggested tube size refers to the outside diameter (OD) of the tubing. Beswick Flare fittings are compatible with copper, aluminum, and stainless steel tubing.

Recommended Installation Torque

Below are the recommended installation torque values for various Beswick fitting sizes. Please note, these are general guidelines only, and assume that you are threading the fitting into a mating port of equal strength. If the fitting is being threaded into a weaker material, such as acrylic, you may have to reduce installation torque accordingly.

Thread Size	Brass & Aluminum	Stainless Steel
M3x0.5[1]	4-6 lbf • in (0.45-0.68 N • m)	4-6 lbf • in (0.45-0.68 N • m)
M4x0.5	4-6 lbf • in (0.45-0.68 N • m)	4-6 lbf • in (0.45-0.68 N • m)
10-32[1]	7-9 lbf • in (0.79-1.02 N • m)	9-12 lbf • in (1.02-1.36 N • m)
M5x0.8[1]	7-9 lbf • in (0.79-1.02 N • m)	9-12 lbf • in (1.02-1.36 N • m)
M6x1.0	7-9 lbf • in (0.79-1.02 N • m)	9-12 lbf • in (1.02-1.36 N • m)
1/4-28	7-9 lbf • in (0.79-1.02 N • m)	9-12 lbf • in (1.02-1.36 N • m)
5/16-24	15-17 lbf • in (1.69-1.92 N • m)	20-22 lbf • in (2.26-2.49 N • m)
M8x1.25	15-17 lbf • in (1.69-1.92 N • m)	20-22 lbf • in (2.26-2.49 N • m)

[1] Recommended installation torque for brass 10-32 and M5x0.8 threaded filter fittings (CF, FMH, and C5F series) is 5 lbf-in. Recommended installation torque for brass M3SP series orifice fittings is 2.5 to 3 lbf-in.

Additional Fitting Information

Please see our website for additional product guides and white papers on proper fitting selection, installation, etc. Some useful links are provided below to assist you with your design. As always, if you have questions, please do not hesitate to contact one of our knowledgeable applications engineers for assistance.

Fitting Selection Guides:

https://www.beswick.com/resources/what-they-didnt-teach-you-about-fittings-in-engineering-school/

https://www.beswick.com/resources/fitting-selection-guide/

O-ring Guide:

https://www.beswick.com/resources/o-ring-guide/

www.beswick.com/resource_type/beswick-product-guides/

BARB FITTINGS

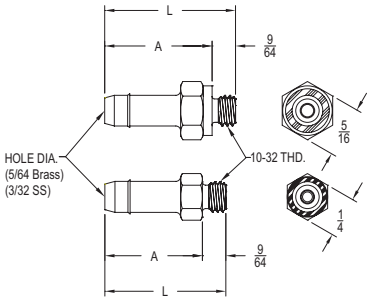
Barb Fitting – 10-32 External Thread

DESCRIPTION
10-32 external threaded barb fitting.

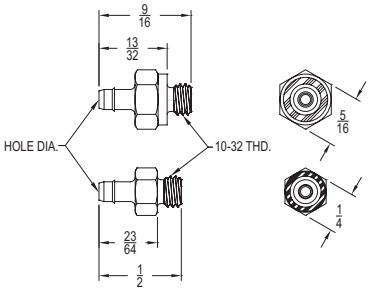
MATERIAL
Brass, 303 or 316 stainless steel.

SEALS
For 5/16 hex models: One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone and Chloroprene. For ¼ hex models: One Buna-N O-ring, OR-14-B. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, FFKM, and Fluorosilicone. See page 11.

Note: Filters can be ordered in barb fittings (see page 91).



UPPER CHART



LOWER CHART

Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hex Size	Installed Height A	L
1/4	MH-1004	MH-1004-303	MH-1004-316	5/16	21/32	13/16
.170 to 3/16	MH-1008-1	MH-1008-1-303	MH-1008-1-316	5/16	21/32	13/16
	MH-1008-1-1/4	MH-1008-1-1/4-303	MH-1008-1-1/4-316	1/4	19/32	3/4
	MH-1008-2	MH-1008-2-303	MH-1008-2-316	5/16	1/2	21/32
	MH-1008-2-1/4	MH-1008-2-1/4-303	MH-1008-2-1/4-316	1/4	7/16	19/32
5/32 (4mm)	MH-1460	MH-1460-303	MH-1460-316	5/16	1/2	21/32
1/8	MH-1332	MH-1332-303	MH-1332-316	5/16	1/2	21/32
	MH-1332-1/4	MH-1332-1/4-303	MH-1332-1/4-316	1/4	7/16	19/32

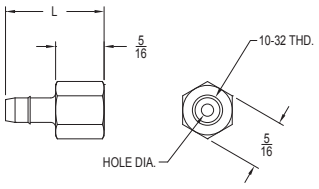
Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hex Size	Hole Diam.
3/32	MH-1132	MH-1132-303	MH-1132-316	5/16	1/16
	MH-1132-1/4	MH-1132-1/4-303	MH-1132-1/4-316	1/4	1/16
5/64 (2mm)	MH-1016	MH-1016-303	MH-1016-316	5/16	3/64
	MH-1016-1/4	MH-1016-1/4-303	MH-1016-1/4-316	1/4	3/64
1/16	MH-1012	MH-1012-303	MH-1012-316	5/16	3/64
	MH-1012-1/4	MH-1012-1/4-303	MH-1012-1/4-316	1/4	3/64
3/64 (1.2mm)	MH-1046	MH-1046-303	MH-1046-316	5/16	1/32
1/32	MH-1031	MH-1031-303	MH-1031-316	5/16	1/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing

Barb Fitting – 10-32 Internal Thread

DESCRIPTION
10-32 internal threaded barb fitting.

MATERIAL
Brass 303 or 316 stainless steel.



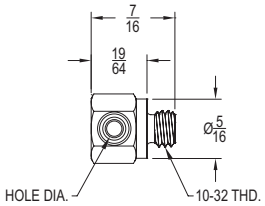
Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam.	L
.170 to 3/16	MHF-1008-1		MHF-1008-1-316	3/32	49/64
.170 to 3/16			MHF-1008-2-316	3/32	5/8
1/8	MHF-1332	MHF-1332-303	MHF-1332-316	5/64 (in brass) 3/32 (in SS)	5/8
1/16	MHF-1012		MHF-1012-316	3/64	17/32

Barb Fitting – 10-32 Thread, Elbow, Ultra Miniature, Fixed Position

DESCRIPTION
Ultra miniature, fixed position elbow with 10-32 thread and built-in barb.

MATERIAL
Brass.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



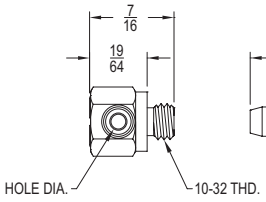
Suggested Tube ID [1]	Part Number Brass	Hole Diam.	L
.170 to 3/16	MLA-1008-1	5/64	25/32
	MLA-1008-2	5/64	5/8
1/8	MLA-1332	5/64	5/8
3/32	MLA-1132	1/16	17/32
5/64 (2mm)	MLA-1016	3/64	17/32
1/16	MLA-1012	3/64	17/32

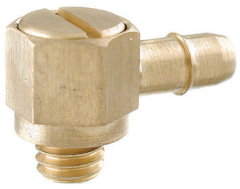
Barb Fitting – 10-32 Thread, Elbow, Ultra Miniature, Adjustable Position

DESCRIPTION
Ultra miniature, adjustable position elbow with 10-32 thread and built-in barb.

MATERIAL
Brass body with brass stud (MAS-1000).

SEALS
Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM,and Fluorosilicone. See page 11.





Suggested Tube ID [1]	Part Number Brass	Hole Diam.	L
1/8	MLAS-1332	5/64	5/8
3/32	MLAS-1132	1/16	17/32
5/64 (2mm)	MLAS-1016	3/64	17/32
1/16	MLAS-1012	3/64	17/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing

Barb Fitting – 10-32 Thread, Elbow, Hex Head Stud, Ultra Miniature, Adjustable Position

DESCRIPTION

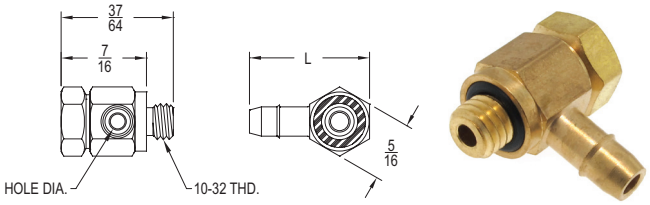
Ultra miniature, adjustable position elbow with 10-32 thread and 5/16" hex head stud.

MATERIAL

Brass body with brass stud (MAS-1001).

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, FFKM, and Fluorosilicone. See page 11.



Suggested Tube ID [1]	Part Number Brass	Hole Diam.	L
1/8	MLASH-1332	5/64	5/8
3/32	MLASH-1132	1/16	17/32
5/64 (2mm)	MLASH-1016	3/64	17/32
1/16	MLASH-1012	3/64	17/32

Barb Fitting – 10-32 Thread, Low Profile Elbow, Adjustable Position

DESCRIPTION

Low profile, adjustable position elbow with 10-32 thread and built-in barb.

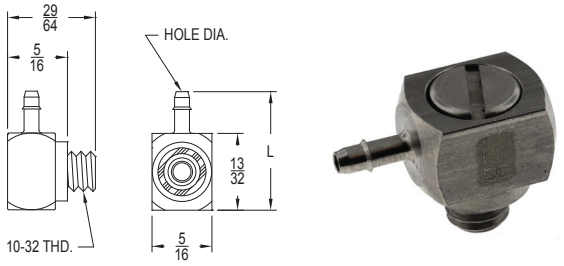
MATERIAL

Brass, 303, or 316 stainless steel body and stud (MS-2000, MS-2000-303 or MS-2000-316).

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.

NOTE: SMLS-1332 is also available in titanium; the part number is SMLS-1332-T2.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	SMLS-1008-2	SMLS-1008-2-303	SMLS-1008-2-316	3/32	5/64	23/32
1/8	SMLS-1332	SMLS-1332-303	SMLS-1332-316	3/32	5/64	23/32
3/32	SMLS-1132	SMLS-1132-303	SMLS-1132-316	1/16	1/16	5/8
5/64 (2mm)	SMLS-1016	SMLS-1016-303	SMLS-1016-316	3/64	3/64	5/8
1/16	SMLS-1012	SMLS-1012-303	SMLS-1012-316	3/64	3/64	5/8

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing

Barb Fitting – 10-32 Thread, Elbow, Adjustable Position

DESCRIPTION

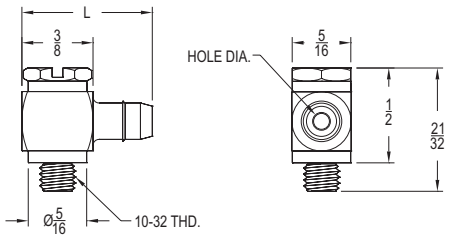
Adjustable position elbow with 10-32 thread, built-in barb and 5/16" hex head stud.

MATERIAL

Brass, 303, or 316 stainless steel body and stud (MSB-1000, MS-1000-303, or MS-1000-316).

SEALS

Two Buna-N O-rings, OR-516-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon® , TFE/P, and FFKM. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & Brass Stud [2]	Part Number Brass Body & 303 Stud	Part Number 303 Body & 303 Stud	Part Number 316 Body & 316 Stud	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	MLSB-1008-1	MLS-1008-1	MLS-1008-1-303	MLS-1008-1-316	3/32	5/64	27/32
	MLSB-1008-2	MLS-1008-2	MLS-1008-2-303	MLS-1008-2-316	3/32	5/64	11/16
5/32 (4mm)			MLS-1460-303	MLS-1460-316	3/32		11/16
1/8	MLSB-1332	MLS-1332	MLS-1332-303	MLS-1332-316	3/32	5/64	11/16
3/32	MLSB-1132	MLS-1132	MLS-1132-303	MLS-1132-316	1/16	1/16	19/32
5/64 (2mm)	MLSB-1016	MLS-1016	MLS-1016-303	MLS-1016-316	3/64	3/64	19/32
1/16	MLSB-1012	MLS-1012	MLS-1012-303	MLS-1012-316	3/64	3/64	19/32

Barb Fitting – 10-32 Threads, 360° Swivel Elbow with Ball Bearings

DESCRIPTION

Miniature swivel fitting with 10-32 thread and built-in barb. Designed with ball bearings to swivel freely 360 degrees in applications with moderate to high cycling.

MATERIAL

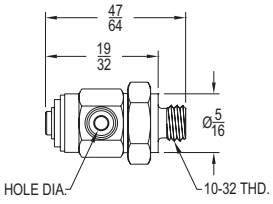
Brass or 303 stainless steel body with 303 stainless steel stud and 440 stainless steel ball bearings.

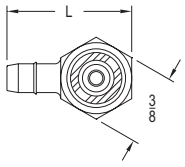
SEALS

Three Buna-N O-rings. Optional material: EPDM and Fluorocarbon. See page 11.

NOTE: For low cycling applications with limited space, refer to the low profile MSL series swivel fittings on our website.

NOTE: This fitting is not recommended for liquid service, or for continuous rotation over 100 RPM. Please consult factory if your application is over 100 RPM.





Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam.	L
1/8	MSF-1332	MSF-1332-303	5/64	5/8
3/32	MSF-1132	MSF-1132-303	1/16	17/32
5/64 (2mm)	MSF-1016	MSF-1016-303	3/64	17/32
1/16	MSF-1012	MSF-1012-303	3/64	17/32

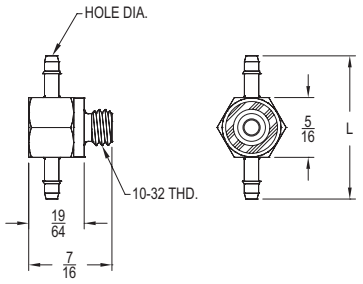
[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.
[2] Brass stud does not have screwdriver slot.

Barb Fitting – 10-32 Thread, Tee, Ultra Miniature, Fixed Position

DESCRIPTION
Ultra miniature, fixed position tee with 10-32 thread and built-in barbs.

MATERIAL
Brass.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon,Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



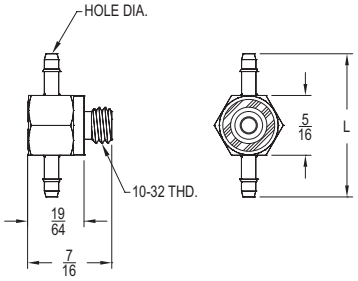
Suggested Tube ID [1]	Part Number Brass	Hole Diam.	L
.170 to 3/16	MTA-1008-1	5/64	1 ¼
	MTA-1008-2	5/64	15/16
1/8	MTA-1332	5/64	15/16
3/32	MTA-1132	1/16	3/4
5/64 (2mm)	MTA-1016	3/64	3/4
1/16	MTA-1012	3/64	3/4

Barb Fitting – 10-32 Thread, Tee, Ultra Miniature, Adjustable Position

DESCRIPTION
Ultra miniature, adjustable position tee with 10-32 thread and built-in barbs.

MATERIAL
Brass body and stud (MAS-1000).

SEALS
Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.



Suggested Tube ID[1]	Part Number Brass	Hole Diam.	L
1/8	MTAS-1332	5/64	15/16
3/32	MTAS-1132	1/16	3/4
5/64 (2mm)	MTAS-1016	3/64	3/4
1/16	MTAS-1012	3/64	3/4

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 10-32 Thread, Tee, Ultra Miniature, Reducer, Adjustable Position

DESCRIPTION

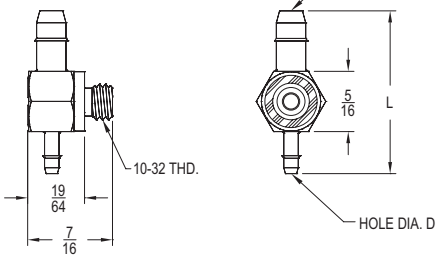
Ultra miniature, adjustable position tee with 10-32 thread and built-in reducing barbs.

MATERIAL

Brass body and stud (MAS-1000).

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.



Suggested Tube ID[1] (Larger)	Suggested Tube ID[1] (Smaller)	Part Number Brass	Hole Diam. C	Hole Diam. D	L
1/8	3/32	MTAS-1332-1132	5/64	1/16	27/32
1/8	5/64 (2 mm)	MTAS-1332-1016	5/64	3/64	27/32
1/8	1/16	MTAS-1332-1012	5/64	3/64	27/32
3/32	5/64 (2 mm)	MTAS-1132-1016	1/16	3/64	3/4
3/32	1/16	MTAS-1132-1012	1/16	3/64	3/4
5/64 (2 mm)	1/16	MTAS-1016-1012	3/64	3/64	3/4

Barb Fitting – 10-32 Thread, Tee, Ultra Miniature, Hex Head Stud, Adjustable Position

DESCRIPTION

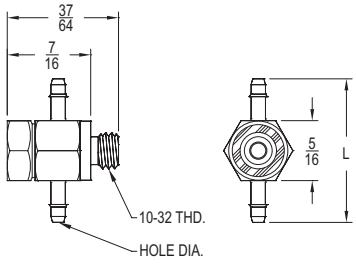
Ultra miniature adjustable position tee with 10-32 thread, built-in barbs and 5/16" hex head stud.

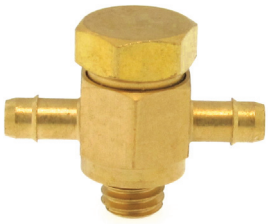
MATERIAL

Brass body and stud (MAS-1001).

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.





Suggested Tube ID[1]	Part Number Brass	Hole Diam.	L
1/8	MTASH-1332	5/64	15/16
3/32	MTASH-1132	1/16	3/4
5/64 (2mm)	MTASH-1016	3/64	3/4
1/16	MTASH-1012	3/64	3/4

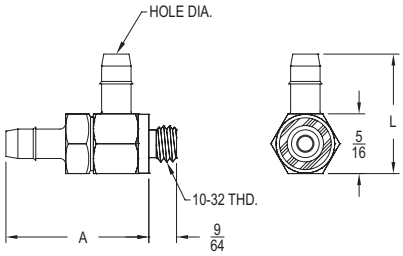
[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 10-32 Thread, Ultra Miniature Street Tee, Adjustable Position

DESCRIPTION
Ultra miniature, adjustable position tee with 10-32 thread and built-in barbs.

MATERIAL
Brass body and stud (MACS series).

SEALS
Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.



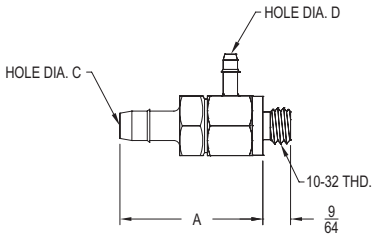
Suggested Tube ID[1]	Part Number Brass	Installed Height A	Hole Diam.	L
1/8	MTACS-1332-1332	3/4	5/64	5/8
3/32	MTACS-1132-1132	21/32	1/16	17/32
5/64 (2mm)	MTACS-1016-1016	21/32	3/64	17/32
1/16	MTACS-1012-1012	21/32	3/64	17/32

Barb Fitting – 10-32 Thread, Ultra Miniature Street Tee, Reducer, Adjustable Position

DESCRIPTION
Ultra miniature, adjustable position tee with 10-32 thread and built-in reducing barbs.

MATERIAL
Brass body and stud (MACS series).

SEALS
Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.



Suggested Tube ID [1] Stud	Suggested Tube ID [1] Body	Part Number Brass MTACS-Stud-Body	Installed Height A	Hole Diam. C	Hole Diam. D	L
1/8	3/32	MTACS-1332-1132	3/4	5/64	1/16	17/32
1/8	5/64 (2 mm)	MTACS-1332-1016	3/4	5/64	3/64	17/32
1/8	1/16	MTACS-1332-1012	3/4	5/64	3/64	17/32
3/32	1/8	MTACS-1132-1332	21/32	1/16	5/64	5/8
3/32	5/64 (2 mm)	MTACS-1132-1016	21/32	1/16	3/64	17/32
3/32	1/16	MTACS-1132-1012	21/32	1/16	3/64	17/32
5/64 (2 mm)	1/8	MTACS-1016-1332	21/32	3/64	5/64	5/8
5/64 (2 mm)	3/32	MTACS-1016-1132	21/32	3/64	1/16	17/32
5/64 (2 mm)	1/16	MTACS-1016-1012	21/32	3/64	3/64	17/32
1/16	1/8	MTACS-1012-1332	21/32	3/64	5/64	5/8
1/16	3/32	MTACS-1012-1132	21/32	3/64	1/16	17/32
1/16	5/64 (2mm)	MTACS-1012-1016	21/32	3/64	3/64	17/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 10-32 Thread, Tee, Low Profile, Adjustable Position

DESCRIPTION

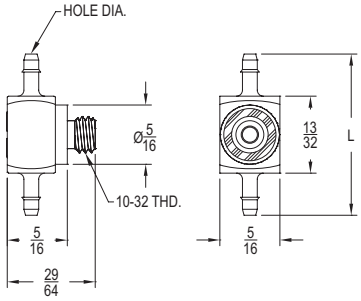
Low profile, adjustable position tee with 10-32 thread and built-in barbs.

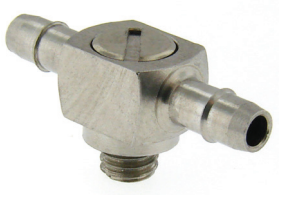
MATERIAL

Brass, 303, or 316 stainless steel body and stud (MS-2000, MS-2000-303, or MS-2000-316).

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM,Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.





Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	SMTS-1008-2	SMTS-1008-2-303	SMTS-1008-2-316	3/32	5/64	1 1/32
1/8		SMTS-1332-303	SMTS-1332-316	3/32		1 1/32
3/32	SMTS-1132	SMTS-1132-303		1/16	1/16	27/32
1/16	SMTS-1012	SMTS-1012-303	SMTS-1012-316	3/64	3/64	27/32

Barb Fitting – 10-32 Thread, Tee, Adjustable Position

DESCRIPTION

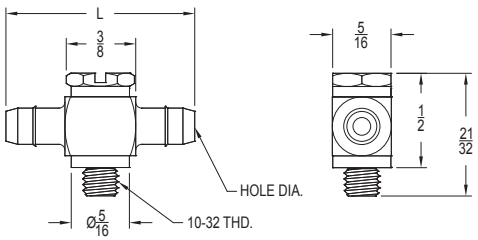
Adjustable position tee with 10-32 thread, built-in barbs, and 5/16" hex head stud.

MATERIAL

Brass, 303, or 316 stainless steel body and stud (MSB-1000, MS-1000-303, or MS-1000-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, and FFKM. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & Brass Stud [2]	Part Number Brass Body & 303 Stud	Part Number 303 Body & 303 Stud	Part Number 316 Body & 316 Stud	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	MTSB-1008-1	MTS-1008-1	MTS-1008-1-303	MTS-1008-1-316	3/32	5/64	1 5/16
	MTSB-1008-2	MTS-1008-2	MTS-1008-2-303	MTS-1008-2-316	3/32	5/64	1 1/64
1/8	MTSB-1332	MTS-1332	MTS-1332-303	MTS-1332-316	3/32	5/64	1 1/64
3/32	MTSB-1132	MTS-1132	MTS-1132-303	MTS-1132-316	1/16	1/16	13/16
5/64 (2mm)	MTSB-1016	MTS-1016	MTS-1016-303	MTS-1016-316	3/64	3/64	13/16
1/16	MTSB-1012	MTS-1012	MTS-1012-303	MTS-1012-316	3/64	3/64	13/16

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.
[2] Brass Stud does not have screwdriver slot.

Barb Fitting – 10-32 Thread, Street Tee, Adjustable Position

DESCRIPTION

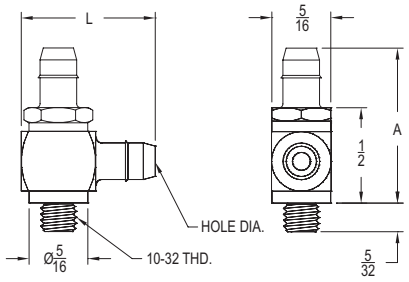
Adjustable position tee with 10-32 thread, combination stud and built-in barb.

MATERIAL

Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel combination stud (MCS-1008-1-303, MCS-1008-2-303, MCS-1008-1-316, or MCS-1008-2-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B.
Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM.
See page 11.



Suggested Tube ID [1] Stud	Suggested Tube ID [1] Body	Part Number Brass Body & 303 Stud MTCS - Stud - Body	Part Number 303 Body & 303 Stud MTCS - Stud - Body	Part Number 316 Body & 316 Stud MTCS - Stud - Body	Hole Diam. SS	Hole Diam. Br	Installed Height A	L
.170 to 3/16	.170 to 3/16	MTCS-1008-1-1008-1	MTCS-1008-1-1008-1-303	MTCS-1008-1-1008-1-316	3/32	5/64	31/32	27/32
.170 to 3/16	.170 to 3/16	MTCS-1008-1-1008-2	MTCS-1008-1-1008-2-303	MTCS-1008-1-1008-2-316	3/32	5/64	31/32	11/16
.170 to 3/16	1/8	MTCS-1008-1-1332	MTCS-1008-1-1332-303	MTCS-1008-1-1332-316	3/32	5/64	31/32	11/16
.170 to 3/16	3/32	MTCS-1008-1-1132	MTCS-1008-1-1132-303	MTCS-1008-1-1132-316	1/16	1/16	31/32	19/32
.170 to 3/16	5/64 (2 mm)	MTCS-1008-1-1016	MTCS-1008-1-1016-303	MTCS-1008-1-1016-316	3/64	3/64	31/32	19/32
.170 to 3/16	1/16	MTCS-1008-1-1012	MTCS-1008-1-1012-303	MTCS-1008-1-1012-316	3/64	3/64	31/32	19/32
.170 to 3/16	.170 to 3/16	MTCS-1008-2-1008-1	MTCS-1008-2-1008-1-303	MTCS-1008-2-1008-1-316	3/32	5/64	13/16	27/32
.170 to 3/16	.170 to 3/16	MTCS-1008-2-1008-2	MTCS-1008-2-1008-2-303	MTCS-1008-2-1008-2-316	3/32	5/64	13/16	11/16
.170 to 3/16	1/8	MTCS-1008-2-1332	MTCS-1008-2-1332-303	MTCS-1008-2-1332-316	3/32	5/64	13/16	11/16
.170 to 3/16	3/32	MTCS-1008-2-1132	MTCS-1008-2-1132-303	MTCS-1008-2-1132-316	1/16	1/16	13/16	19/32
.170 to 3/16	5/64 (2 mm)	MTCS-1008-2-1016	MTCS-1008-2-1016-303	MTCS-1008-2-1016-316	3/64	3/64	13/16	19/32
.170 to 3/16	1/16	MTCS-1008-2-1012	MTCS-1008-2-1012-303	MTCS-1008-2-1012-316	3/64	3/64	13/16	19/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 10-32 External Thread to 10-32 Internal Thread and Barb, Street Tee, Adjustable Position

DESCRIPTION

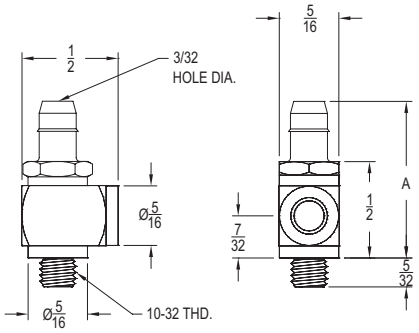
Adjustable position tee with 10-32 threads and combination stud.

MATERIAL

Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel combination stud (MCS-1008-1-303, MCS-1008-2-303, MCS-1008-1-316, or MCS-1008-2-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & 303 Stud	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height A
.170 to 3/16	MTCS-1008-1	MTCS-1008-1-303	MTCS-1008-1-316	31/32
.170 to 3/16	MTCS-1008-2	MTCS-1008-2-303	MTCS-1008-2-316	13/16

Barb Fitting – 10-32 External Thread to Barb and 10-32 Internal Thread, Street Tee, Adjustable Position

DESCRIPTION

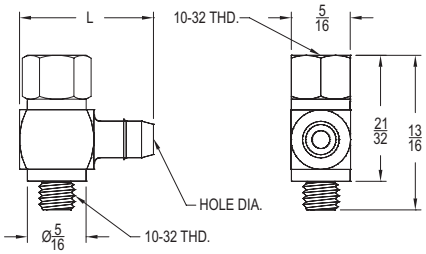
Adjustable position tee with 10-32 threads, manifold stud and built-in barb.

MATERIAL

Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel manifold stud (MS-1010-303 or MS-1010-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & 303 Stud	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	MTM-1008-1	MTM-1008-1-303	MTM-1008-1-316	3/32	5/64	27/32
	MTM-1008-2	MTM-1008-2-303	MTM-1008-2-316	3/32	5/64	11/16
1/8	MTM-1332	MTM-1332-303	MTM-1332-316	3/32	5/64	11/16
3/32	MTM-1132	MTM-1132-303	MTM-1132-316	1/16	1/16	19/32
5/64 (2mm)	MTM-1016	MTM-1016-303	MTM-1016-316	3/64	3/64	19/32
1/16	MTM-1012	MTM-1012-303	MTM-1012-316	3/64	3/64	19/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 10-32 Thread and Barbs, Ultra Miniature, Cross, Adjustable Position

DESCRIPTION

Adjustable position cross with built-in barbs and combination stud with 10-32 thread.

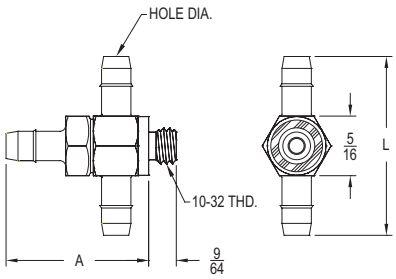
MATERIAL

Brass body and stud (MACS series).

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.

Note: Reducer configurations, with mixed barb sizes, are available on request. Contact factory for details.



Suggested Tube ID [1]	Part Number Brass	Installed Height A	Hole Diam.	L
1/8	MCACS-1332-1332	3/4	5/64	15/16
3/32	MCACS-1132-1132	21/32	1/16	3/4
5/64 (2mm)	MCACS-1016-1016	21/32	3/64	3/4
1/16	MCACS-1012-1012	21/32	3/64	3/4

Barb Fitting – 10-32 Threads and Barb, Cross, Adjustable Position

DESCRIPTION

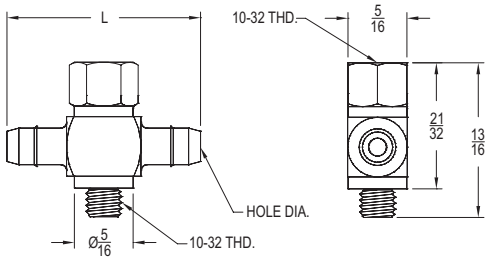
Adjustable position cross with 10-32 external thread, manifold stud with 10-32 internal thread and built-in barbs.

MATERIAL

Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel manifold stud (MS-1010-303 or MS-1010-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & 303 Stud	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	MCM-1008-1	MCM-1008-1-303	MCM-1008-1-316	3/32	5/64	1 5/16
	MCM-1008-2	MCM-1008-2-303	MCM-1008-2-316	3/32	5/64	1 1/64
1/8	MCM-1332	MCM-1332-303	MCM-1332-316	3/32	5/64	1 1/64
3/32	MCM-1132	MCM-1132-303	MCM-1132-316	1/16	1/16	13/16
5/64 (2mm)	MCM-1016	MCM-1016-303	MCM-1016-316	3/64	3/64	13/16
1/16	MCM-1012	MCM-1012-303	MCM-1012-316	3/64	3/64	13/16

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 10-32 Thread and Barbs, Cross, Adjustable Position

DESCRIPTION

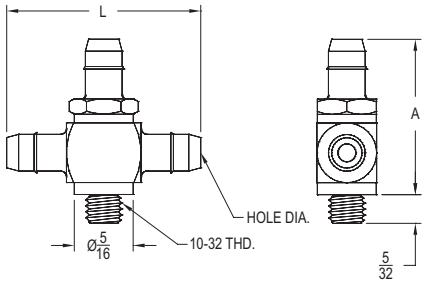
Adjustable position cross with 10-32 thread, combination stud and built-in barbs.

MATERIAL

Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel combination stud (MCS-1008-1-303, MCS-1008-2-303, MCCS-1008-1-316 or MCS-1008-2-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Suggested Tube ID [1] Stud	Suggested Tube ID [1] Body	Part Number Brass Body & 303 Stud MTCS - Stud - Body	Part Number 303 Body & 303 Stud MTCS - Stud - Body	Part Number 316 Body & 316 Stud MTCS - Stud - Body	Hole Diam. SS	Hole Diam. Br	Installed Height A	L
.170 to 3/16	.170 to 3/16	MCCS-1008-1-1008-1	MCCS-1008-1-1008-1-303	MCCS-1008-1-1008-1-316	3/32	5/64	31/32	1 5/16
.170 to 3/16	.170 to 3/16	MCCS-1008-1-1008-2	MCCS-1008-1-1008-2-303	MCCS-1008-1-1008-2-316	3/32	5/64	31/32	1 1/64
.170 to 3/16	1/8	MCCS-1008-1-1332	MCCS-1008-1-1332-303	MCCS-1008-1-1332-316	3/32	5/64	31/32	1 1/64
.170 to 3/16	3/32	MCCS-1008-1-1132	MCCS-1008-1-1132-303	MCCS-1008-1-1132-316	1/16	1/16	31/32	13/16
.170 to 3/16	5/64 (2 mm)	MCCS-1008-1-1016	MCCS-1008-1-1016-303	MCCS-1008-1-1016-316	3/64	3/64	31/32	13/16
.170 to 3/16	1/16	MCCS-1008-1-1012	MCCS-1008-1-1012-303	MCCS-1008-1-1012-316	3/64	3/64	31/32	13/16
.170 to 3/16	.170 to 3/16	MCCS-1008-2-1008-1	MCCS-1008-2-1008-1-303	MCCS-1008-2-1008-1-316	3/32	5/64	13/16	1 5/16
.170 to 3/16	.170 to 3/16	MCCS-1008-2-1008-2	MCCS-1008-2-1008-2-303	MCCS-1008-2-1008-2-316	3/32	5/64	13/16	1 1/64
.170 to 3/16	1/8	MCCS-1008-2-1332	MCCS-1008-2-1332-303	MCCS-1008-2-1332-316	3/32	5/64	13/16	1 1/64
.170 to 3/16	3/32	MCCS-1008-2-1132	MCCS-1008-2-1132-303	MCCS-1008-2-1132-316	1/16	1/16	13/16	13/16
.170 to 3/16	5/64 (2 mm)	MCCS-1008-2-1016	MCCS-1008-2-1016-303	MCCS-1008-2-1016-316	3/64	3/64	13/16	13/16
.170 to 3/16	1/16	MCCS-1008-2-1012	MCCS-1008-2-1012-303	MCCS-1008-2-1012-316	3/64	3/64	13/16	13/16

Fitting – 10-32 Threads and Barb, Cross, Adjustable Position

DESCRIPTION

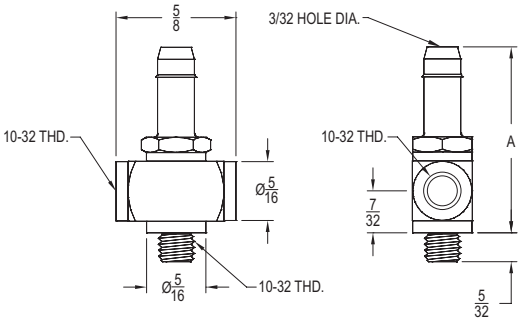
Adjustable position cross with 10-32 threads and combination stud with barb for .170 to 3/16 inch ID tube[1].

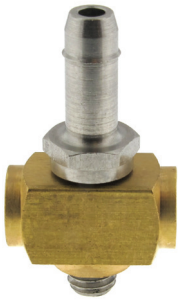
MATERIAL

Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel combination stud (MCS-1008-1-303, MCS-1008-1-316, MCS-1008-2-303, or MCS-1008-2-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.





Part Number Brass Body & 303 Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud	Installed Height A
MCCS-1008-1	MCCS-1008-1-303	MCCS-1008-1-316	31/32
MCCS-1008-2	MCCS-1008-2-303	MCCS-1008-2-316	13/16

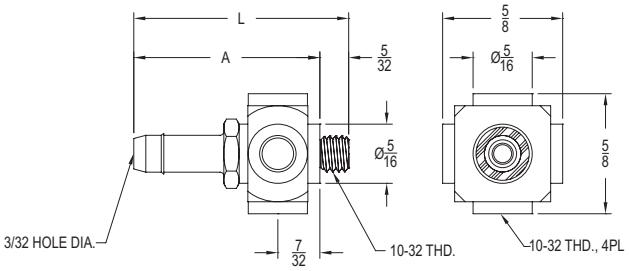
[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

6 Port Fitting – 10-32 Threads and Barb, Adjustable Position

DESCRIPTION
Adjustable position 6-port fitting with 10-32 threads and combination stud.

MATERIAL
Brass or 303 stainless steel body with 303 stainless steel combination stud (MCS-1008-1-303 or MCS-1008-2-303).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



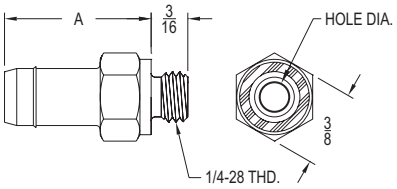
Suggested Tube ID [1]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless	Installed Height A	L
.170 to 3/16	MKCS-1008-1	MKCS-1008-1-303	31/32	1 1/8
.170 to 3/16	MKCS-1008-2	MKCS-1008-2-303	13/16	31/32

Barb Fitting – 1/4-28 External Thread

DESCRIPTION
1/4-28 external threaded barb fitting.

MATERIAL
Brass, 303, or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-1428-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, and Chloroprene. See page 11.



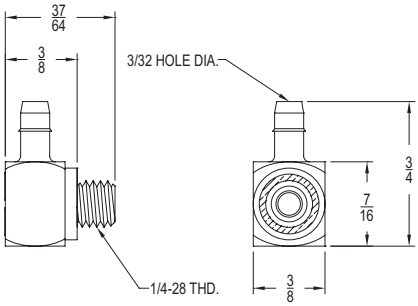
Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	Installed Height A
1/4	MH-1004-1428	MH-1004-1428-303	MH-1004-1428-316	9/64	9/64	23/32
.170 to 3/16	MH-1008-1-1428	MH-1008-1-1428-303	MH-1008-1-1428-316	9/64	9/64	23/32
1/8	MH-1332-1428	MH-1332-1428-303	MH-1332-1428-316	7/64	3/32	9/16

Barb Fitting - 1/4-28 Thread, Low Profile Elbow, Adjustable Position

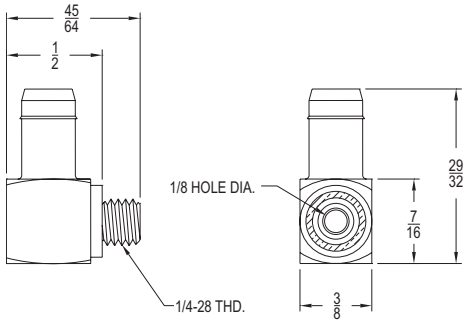
DESCRIPTION
Low profile adjustable position elbow with 1/4-28 thread and built-in barb.

MATERIAL
Brass, ENP brass or 303 stainless steel body and stud.

SEALS
Two Buna-N O-rings, OR-1428-B and OR-1428-52-B. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.

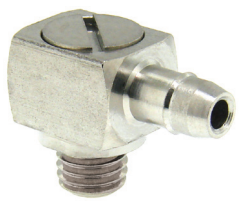


SMLS-1332-1428 and SMLS-1008-2-1428-303



SMLS-1004-1428-303

Suggested Tube ID [1]	Part Number Brass	Part Number ENP Brass	Part Number 303 Stainless
1/4			SMLS-1004-1428-303
.170 - 3/16			SMLS-1008-2-1428-303
1/8	SMLS-1332-1428	SMLS-1332-1428-ENP	



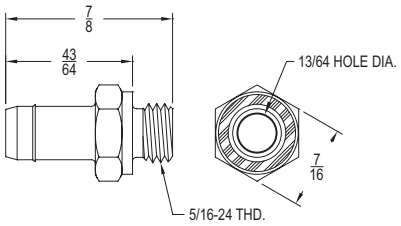
[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 5/16-24 External Thread

DESCRIPTION
5/16-24 external threaded barb fitting.

MATERIAL
Brass, 303, or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-51624-B. Optional materials: EPDM and Fluorocarbon. See page 11.



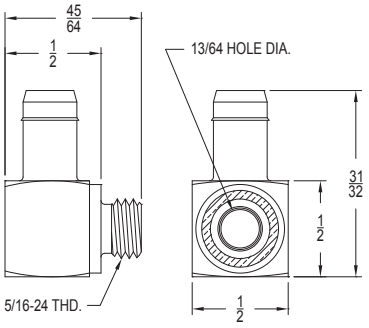
Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
1/4	MH-1004-51624	MH-1004-51624-3	MH-1004-51624-6

NEW Barb Fitting - 5/16-24 Thread, Low Profile Elbow, Adjustable Position

DESCRIPTION
Low profile adjustable position elbow with 5/16-24 thread and built-in barb.

MATERIAL
303 stainless steel body and stud.

SEALS
Two Buna-N O-rings. Optional materials EPDM and Fluorocarbon. See page 11.



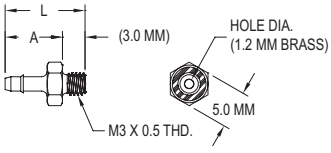
Suggested Tube ID [1]	Part Number 303 Stainless
1/4	SMLS-1004-51624-303

Barb Fitting – M3 External Thread

DESCRIPTION
M3 external threaded barb fitting.

MATERIAL
Brass, 303, or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Installed Height A	L
1/8" (3.2 mm)	M3H-1332	M3H-1332-303	M3H-1332-316	1.6 mm (1/16")	9.8 mm (25/64")	12.8 mm (1/2")
3/32" (2.4 mm)	M3H-1132	M3H-1132-303	M3H-1132-316	1.6 mm (1/16")	7.5 mm (19/64")	10.5 mm (27/64")
5/64" (2.0 mm)	M3H-1016	M3H-1016-303	M3H-1016-316	1.3 mm (3/64")	7.5 mm (19/64")	10.5 mm (27/64")
1/16" (1.6 mm)	M3H-1012	M3H-1012-303	M3H-1012-316	1.2 mm (3/64")	7.5 mm (19/64")	10.5 mm (27/64")
3/64" (1.2 mm)		M3H-1046-303		0.8 mm (1/32")	7.5 mm (19/64")	10.5 mm (27/64")

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – M3 Thread, Elbow, Adjustable Position

DESCRIPTION

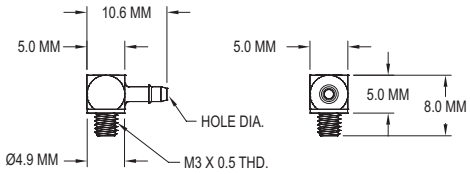
Adjustable position elbow with M3 thread and built-in barb.

MATERIAL

Brass, 303, or 316 stainless steel body and 303 or 316 stainless steel stud (M3S-1000-303 or M3S-1000-316).

SEALS

Two Buna-N O-rings, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam.
3/32" (2.4 mm)	M3LS-1132	M3LS-1132-303		1.2 mm (3/64")
5/64" (2.0 mm)	M3LS-1016	M3LS-1016-303	M3LS-1016-316	1.2 mm (3/64")
1/16" (1.6 mm)	M3LS-1012	M3LS-1012-303	M3LS-1012-316	1.2 mm (3/64")
3/64" (1.2 mm)		M3LS-1046-303		0.8 mm (1/32")

Barb Fitting – M3 Thread, Tee, Ultra Miniature, Adjustable Position

DESCRIPTION

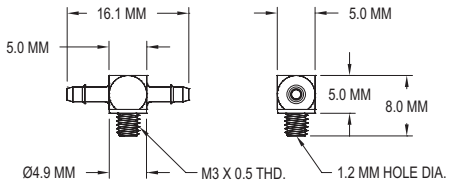
Ultra miniature, adjustable position tee with M3 thread and built-in barbs.

MATERIAL

Brass, 303, or 316 stainless steel body and 303 or 316 stainless steel stud (M3S-1000-303 or M3S-1000-316).

SEALS

Two Buna-N O-rings, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless	Part Number 316 Stainless
1/16" (1.6mm)	M3TS-1012	M3TS-1012-303	M3TS-1012-316

Barb Fitting – M5 External Thread

DESCRIPTION

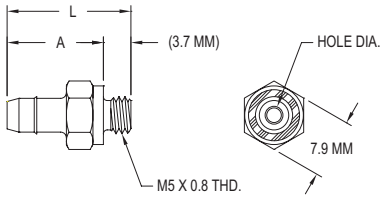
M5 external threaded barb fitting.

MATERIAL

Brass, 303, or 316 stainless steel.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	Installed Height A	L
.170" to 3/16" (4.5 mm)	M5H-1008-1	M5H-1008-1-303	M5H-1008-1-316	2.4 mm (3/32")	2.0 mm (5/64")	16.7 mm (21/32")	20.4 mm (13/16")
	M5H-1008-2	M5H-1008-2-303	M5H-1008-2-316	2.4 mm (3/32")	2.0 mm (5/64")	12.7 mm (1/2")	16.4 mm (21/32")
5/32" (4.0 mm)	M5H-1460	M5H-1460-303	M5H-1460-316	2.4 mm (3/32")	2.0 mm (5/64")	12.7 mm (1/2")	16.4 mm (21/32")
1/8" (3.2 mm)	M5H-1332	M5H-1332-303	M5H-1332-316	2.4 mm (3/32")	2.0 mm (5/64")	12.7 mm (1/2")	16.4 mm (21/32")
3/32" (2.4 mm)	M5H-1132	M5H-1132-303	M5H-1132-316	1.6 mm (1/16")	1.6 mm (1/16")	10.3 mm (13/32")	14.2 mm (9/16")
5/64" (2.0 mm)	M5H-1016	M5H-1016-303	M5H-1016-316	1.3 mm (3/64")	1.3 mm (3/64")	10.3 mm (13/32")	14.2 mm (9/16")
1/16" (1.6 mm)	M5H-1012	M5H-1012-303	M5H-1012-316	1.2 mm (3/64")	1.2 mm (3/64")	10.3 mm (13/32")	14.2 mm (9/16")

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – M5 Thread, Elbow, Low Profile, Adjustable Position

DESCRIPTION

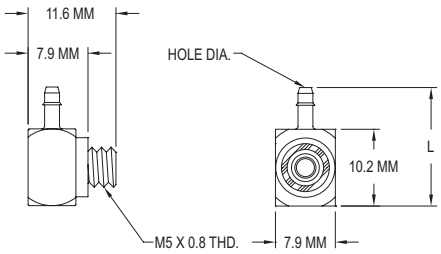
Low profile, adjustable position elbow with M5 thread and built-in barb.

MATERIAL

Brass, 303, or 316 stainless steel body and stud (M5S-2000, M5S-2000-303, or M5S-2000-316).

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170" to 3/16" (4.5 mm)	S5MLS-1008-2	S5MLS-1008-2-303	S5MLS-1008-2-316	2.4 mm (3/32")	2.0 mm (5/64")	18.3 mm (23/32")
1/8" (3.2 mm)	S5MLS-1332	S5MLS-1332-303	S5MLS-1332-316	2.4 mm (3/32")	2.0 mm (5/64")	18.3 mm (23/32")
3/32" (2.4 mm)	S5MLS-1132	S5MLS-1132-303	S5MLS-1132-316	1.6 mm (1/16")	1.6 mm (1/16")	15.8 mm (5/8")
5/64" (2.0 mm)	S5MLS-1016	S5MLS-1016-303	S5MLS-1016-316	1.3 mm (3/64")	1.3 mm (3/64")	15.8 mm (5/8")
1/16" (1.6 mm)	S5MLS-1012	S5MLS-1012-303	S5MLS-1012-316	1.2 mm (3/64")	1.2 mm (3/64")	15.8 mm (5/8")

Barb Fitting – M5 Thread, Elbow, Adjustable Position

DESCRIPTION

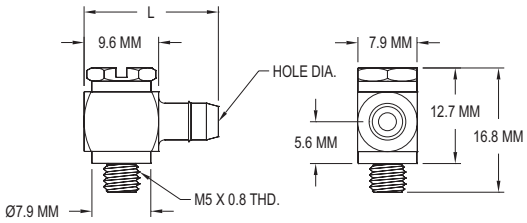
Adjustable position elbow with M5 thread and built-in barb.

MATERIAL

Brass, 303, or 316 stainless steel body with brass, 303, or 316 stainless steel stud (M5SB-1000, M5S-1000-303, or M5S-1000-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & Brass Stud [2]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud	Hole Diam. SS	Hole Diam. Br	L
.170" to 3/16" (4.5 mm)	M5LSB-1008-1	M5LS-1008-1	M5LS-1008-1-303	M5LS-1008-1-316	2.4 mm (3/32")	2.0 mm (5/64")	21.5 mm (27/32")
	M5LSB-1008-2	M5LS-1008-2	M5LS-1008-2-303	M5LS-1008-2-316	2.4 mm (3/32")	2.0 mm (5/64")	17.5 mm (11/16")
5/32" (4.0 mm)			M5LS-1460-303	M5LS-1460-316	2.8 mm (7/64")		17.5 mm (11/16")
1/8" (3.2 mm)	M5LSB-1332	M5LS-1332	M5LS-1332-303	M5LS-1332-316	2.4 mm (3/32")	2.0 mm (5/64")	17.5 mm (11/16")
3/32" (2.4 mm)	M5LSB-1132	M5LS-1132	M5LS-1132-303	M5LS-1132-316	1.6 mm (1/16")	1.6 mm (1/16")	15.1 mm (19/32")
5/64" (2.0 mm)	M5LSB-1016	M5LS-1016	M5LS-1016-303	M5LS-1016-316	1.3 mm (3/64")	1.3 mm (3/64")	15.1 mm (19/32")
1/16" (1.6 mm)	M5LSB-1012	M5LS-1012	M5LS-1012-303	M5LS-1012-316	1.2 mm (3/64")	1.2 mm (3/64")	15.1 mm (19/32")

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.
[2] Brass stud does not have a screwdriver slot.

Barb Fitting – M5 Thread, Tee, Low Profile, Adjustable Position

DESCRIPTION

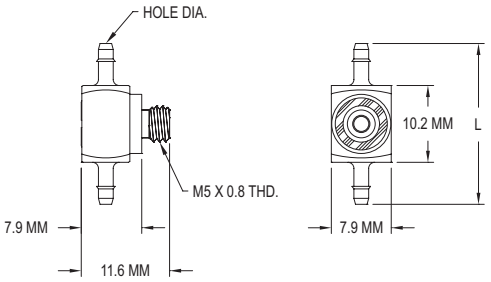
Low profile, adjustable position tee with M5 thread and built-in barbs.

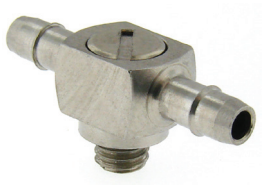
MATERIAL

Brass, 303, or 316 stainless steel body and stud (M5S-2000, M5S-2000-303, or M5S-2000-316).

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.





Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170" to 3/16" (4.5 mm)	S5MTS-1008-2	S5MTS-1008-2-303	S5MTS-1008-2-316	2.4mm (3/32")	2.0 mm (5/64")	26.1 mm (1 1/32")
1/8" (3.2 mm)		S5MTS-1332-303	S5MTS-1332-316	2.4 mm (3/32")		26.1 mm (1 1/32")
3/32" (2.4 mm)		S5MTS-1132-303		1.6 mm (1/16")		21.3 mm (27/32")
1/16" (1.6 mm)	S5MTS-1012	S5MTS-1012-303	S5MTS-1012-316	1.2 mm (3/64")	1.2 mm (3/64")	21.3 mm (27/32")

Barb Fitting – M5 Thread, Tee, Adjustable Position

DESCRIPTION

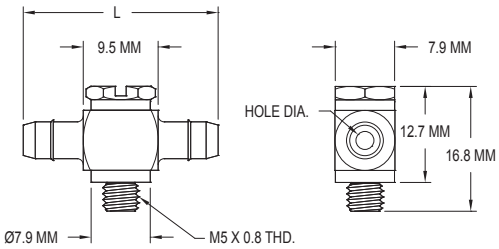
Adjustable position tee with M5 thread and built-in barbs.

MATERIAL

Brass, 303, or 316 stainless steel body with brass, 303, or 316 stainless steel stud (M5SB-1000, M5S-1000-303, or M5S-1000-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & Brass Stud [2]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud	Hole Diam. SS	Hole Diam. Br	L
.170" to 3/16" (4.5 mm)	M5TSB-1008-1	M5TS-1008-1	M5TS-1008-1-303	M5TS-1008-1-316	2.4 mm (3/32")	2.0 mm (5/64")	33.3 mm (1 5/16")
	M5TSB-1008-2	M5TS-1008-2	M5TS-1008-2-303	M5TS-1008-2-316	2.4 mm (3/32")	2.0 mm (5/64")	25.8 mm (1 1/64")
1/8" (3.2 mm)	M5TSB-1332	M5TS-1332	M5TS-1332-303	M5TS-1332-316	2.4 mm (3/32")	2.0 mm (5/64")	25.8 mm (1 1/64")
3/32" (2.4 mm)	M5TSB-1132	M5TS-1132	M5TS-1132-303	M5TS-1132-316	1.6 mm (1/16")	1.6 mm (1/16")	20.7 mm (13/16")
5/64" (2.0 mm)	M5TSB-1016	M5TS-1016	M5TS-1016-303	M5TS-1016-316	1.3 mm (3/64")	1.3 mm (3/64")	20.7 mm (13/16")
1/16" (1.6 mm)	M5TSB-1012	M5TS-1012	M5TS-1012-303	M5TS-1012-316	1.2 mm (3/64")	1.2 mm (3/64")	20.7 mm (13/16")

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.
[2] Brass stud does not have a screwdriver slot.

Barb Fitting – M5 Threads and Barbs, Cross, Adjustable Position

DESCRIPTION

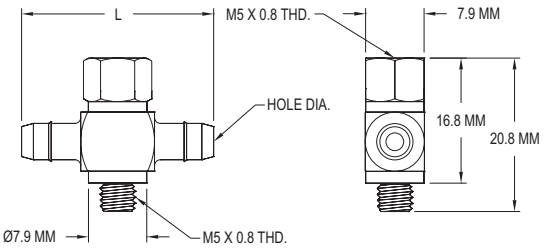
Adjustable position cross with M5 external thread, manifold stud with M5 internal thread, and built-in barbs.

MATERIAL

Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel manifold stud (M5S-M5-303 or M5S-M5-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Suggested Tube ID [1]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud	Hole Diam. SS	Hole Diam. Br	L
.170" to 3/16" (4.5 mm)	M5CM-1008-1	M5CM-1008-1-303	M5CM-1008-1-316	2.4 mm (3/32")	2.0 mm (5/64")	33.3 mm (1 5/16")
	M5CM-1008-2	M5CM-1008-2-303	M5CM-1008-2-316	2.4 mm (3/32")	2.0 mm (5/64")	25.8 mm (1 1/64")
1/8" (3.2 mm)	M5CM-1332	M5CM-1332-303	M5CM-1332-316	2.4 mm (3/32")	2.0 mm (5/64")	25.8 mm (1 1/64")
3/32" (2.4 mm)	M5CM-1132	M5CM-1132-303	M5CM-1132-316	1.6 mm (1/16")	1.6 mm (1/16")	20.7 mm (13/16")
5/64" (2.0 mm)	M5CM-1016	M5CM-1016-303	M5CM-1016-316	1.3 mm (3/64")	1.3 mm (3/64")	20.7 mm (13/16")
1/16" (1.6 mm)	M5CM-1012	M5CM-1012-303	M5CM-1012-316	1.2 mm (3/64")	1.2 mm (3/64")	20.7 mm (13/16")

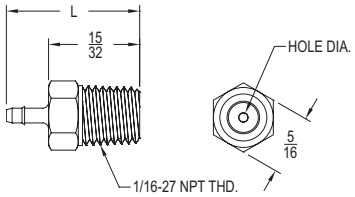
Barb Fitting – 1/16" NPT External Pipe Thread

DESCRIPTION

1/16" NPT external threaded barb fitting.

MATERIAL

Brass or 303 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	MPAH-6008-1	MPAH-6008-1-303	3/32	5/64	15/16
	MPAH-6008-2	MPAH-6008-2-303	3/32	5/64	51/64
1/8	MPAH-6332	MPAH-6332-303	3/32	5/64	51/64
3/32	MPAH-6132	MPAH-6132-303	1/16	1/16	11/16
5/64 (2mm)	MPAH-6016	MPAH-6016-303	3/64	3/64	11/16
1/16	MPAH-6012	MPAH-6012-303	3/64	3/64	11/16

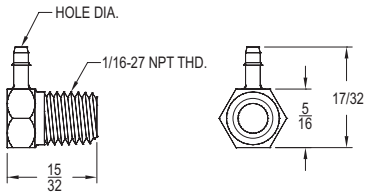
Barb Fitting – 1/16" NPT External Pipe Thread, Elbow

DESCRIPTION

Elbow fitting with 1/16" NPT external thread and built-in barb.

MATERIAL

Brass or 303 stainless steel.



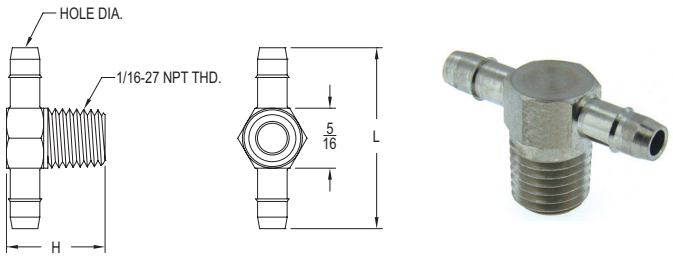
Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam.
3/32	MPAL-6132	MPAL-6132-303	1/16
5/64 (2mm)	MPAL-6016	MPAL-6016-303	3/64
1/16	MPAL-6012	MPAL-6012-303	3/64

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 1/16" NPT External Pipe Thread, Tee

DESCRIPTION
Tee fitting with 1/16" NPT external thread and built-in barbs.

MATERIAL
303 stainless steel.

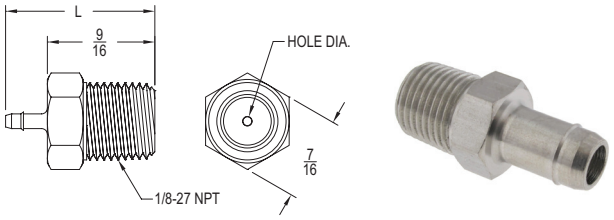


Suggested Tube ID [1]	Part Number 303 Stainless	Hole Diam.	H	L
1/8	MPAT-6332-303	3/32	33/64	15/16
1/16	MPAT-6012-303	3/64	15/32	3/4

Barb Fitting – 1/8" NPT External Pipe Thread

DESCRIPTION
1/8" NPT external threaded barb fitting.

MATERIAL
Brass or 303 stainless steel.

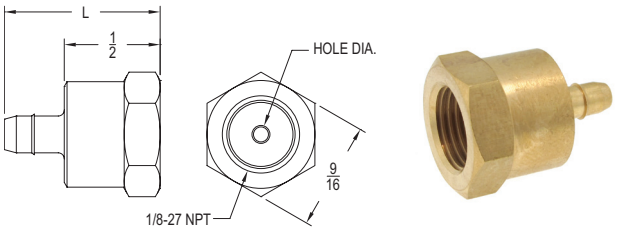


Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam. SS	Hole Diam. Br	L
1/4	MPAH-8004	MPAH-8004-303	3/16	3/16	1 1/32
.170 to 3/16	MPAH-8008-1	MPAH-8008-1-303	3/32	5/64	1 1/32
	MPAH-8008-2	MPAH-8008-2-303	3/32	5/64	7/8
1/8	MPAH-8332	MPAH-8332-303	3/32	5/64	7/8
3/32	MPAH-8132	MPAH-8132-303	1/16	1/16	25/32
5/64 (2mm)	MPAH-8016	MPAH-8016-303	3/64	3/64	25/32
1/16	MPAH-8012	MPAH-8012-303	3/64	3/64	25/32

Barb Fitting – 1/8" NPT Internal Pipe Thread

DESCRIPTION
1/8" NPT internal threaded barb fitting.

MATERIAL
Brass or 303 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam.	L
.170 to 3/16	MPFAH-8008-1		5/64	31/32
	MPFAH-8008-2		5/64	13/16
1/8	MPFAH-8332	MPFAH-8332-303	5/64 (3/32 in SS)	13/16
3/32	MPFAH-8132		1/16	23/32
5/64 (2mm)	MPFAH-8016		3/64	23/32
1/16	MPFAH-8012	MPFAH-8012-303	3/64	23/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

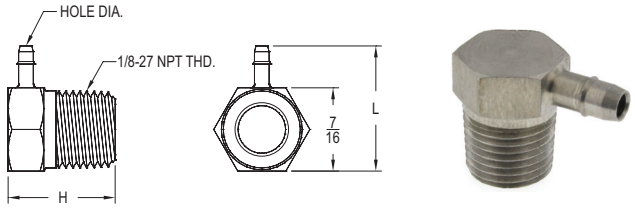
Barb Fitting – 1/8" NPT External Pipe Thread, Elbow

DESCRIPTION

Elbow fitting with 1/8" NPT external thread and built-in barb.

MATERIAL

Brass, 303 or 316 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	H	L
.170 to 3/16	MPAL-8008-1	MPAL-8008-1-303		3/32	5/64	3/4	29/32
	MPAL-8008-2	MPAL-8008-2-303		3/32	5/64	3/4	3/4
1/8	MPAL-8332	MPAL-8332-303	MPAL-8332-316	3/32	5/64	9/16	3/4
3/32	MPAL-8132	MPAL-8132-303		1/16	1/16	9/16	21/32
5/64 (2mm)	MPAL-8016	MPAL-8016-303		3/64	3/64	9/16	21/32
1/16	MPAL-8012	MPAL-8012-303		3/64	3/64	9/16	21/32

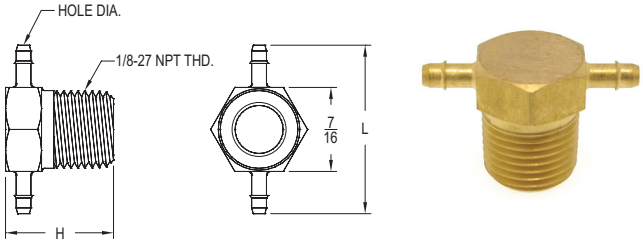
Barb Fitting – 1/8" NPT External Pipe Thread, Tee

DESCRIPTION

Tee fitting with 1/8" NPT external thread and built-in barbs.

MATERIAL

Brass or 303 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam. SS	Hole Diam. Br	H	L
.170 to 3/16	MPAT-8008-1	MPAT-8008-1-303	3/32	3/32	3/4	1 3/8
	MPAT-8008-2	MPAT-8008-2-303	3/32	5/64	3/4	1 1/16
1/8	MPAT-8332	MPAT-8332-303	3/32	5/64	9/16	1 1/16
3/32	MPAT-8132	MPAT-8132-303	1/16	1/16	9/16	7/8
5/64 (2mm)	MPAT-8016	MPAT-8016-303	3/64	3/64	9/16	7/8
1/16	MPAT-8012	MPAT-8012-303	3/64	3/64	9/16	7/8

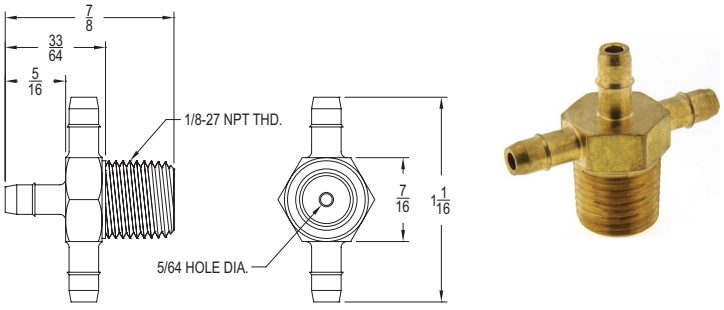
Barb Fitting – 1/8" NPT External Pipe Thread, Cross

DESCRIPTION

Cross fitting with 1/8" NPT external thread and built in barbs for 1/8" ID tubing.

MATERIAL

Brass.



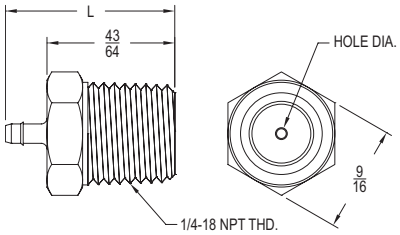
Suggested Tube ID [1]	Part Number Brass
1/8	MPAC-8332

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Barb Fitting – 1/4" NPT External Pipe Thread

DESCRIPTION
1/4" NPT external threaded barb fitting.

MATERIAL
Brass or 303 stainless steel.

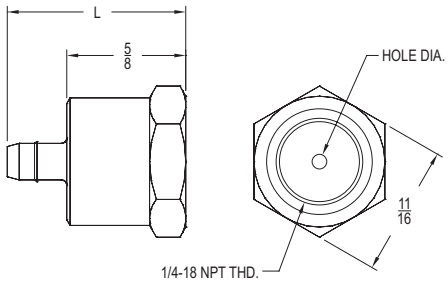


Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam. SS	Hole Diam. Br	L
1/4	MPAH-4004			3/16	1 9/64
.170 to 3/16	MPAH-4008-1	MPAH-4008-1-303	3/32	5/64	1 9/64
	MPAH-4008-2	MPAH-4008-2-303	3/32	5/64	63/64
1/8	MPAH-4332	MPAH-4332-303	3/32	5/64	63/64
3/32	MPAH-4132	MPAH-4132-303	1/16	1/16	57/64
5/64 (2mm)	MPAH-4016	MPAH-4016-303	3/64	3/64	57/64
1/16	MPAH-4012	MPAH-4012-303	3/64	3/64	57/64

Barb Fitting – 1/4" NPT Internal Pipe Thread

DESCRIPTION
1/4" NPT internal threaded barb fitting.

MATERIAL
Brass.



Suggested Tube ID [1]	Part Number Brass	Hole Diam.	L
.170 to 3/16	MPFAH-4008-1	5/64	1 3/32
	MPFAH-4008-2	5/64	15/16
1/8	MPFAH-4332	5/64	15/16
3/32	MPFAH-4132	1/16	27/32
5/64 (2mm)	MPFAH-4016	3/64	27/32
1/16	MPFAH-4012	3/64	27/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

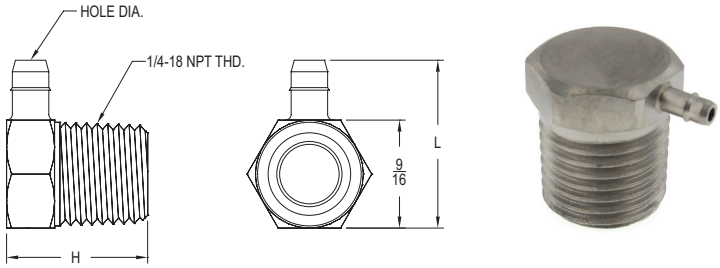
Barb Fitting – 1/4" NPT External Pipe Thread, Elbow

DESCRIPTION

Elbow fitting with 1/4" NPT external thread and built-in barb.

MATERIAL

Brass, 303, or 316 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	H	L
1/4		MPAL-4004-303		3/16		13/16	1 1/32
.170 to 3/16	MPAL-4008-1	MPAL-4008-1-303		3/32	5/64	47/64	1 1/32
	MPAL-4008-2	MPAL-4008-2-303		3/32	5/64	47/64	7/8
1/8	MPAL-4332	MPAL-4332-303	MPAL-4332-316	3/32	5/64	43/64	7/8
3/32	MPAL-4132	MPAL-4132-303		1/16	1/16	43/64	25/32
5/64 (2mm)	MPAL-4016	MPAL-4016-303		3/64	3/64	43/64	25/32
1/16	MPAL-4012	MPAL-4012-303		3/64	3/64	43/64	25/32

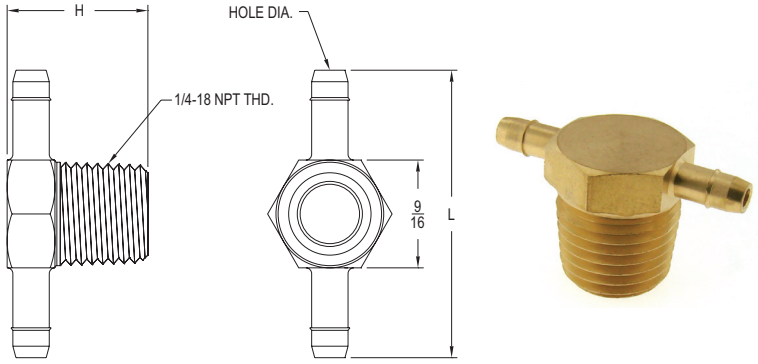
Barb Fitting – 1/4" NPT External Pipe Thread, Tee

DESCRIPTION

Tee fitting with 1/4" NPT external thread and built-in barbs.

MATERIAL

Brass or 303 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam. SS	Hole Diam. Br	H	L
.170 to 3/16	MPAT-4008-1	MPAT-4008-1-303	3/32	5/64	47/64	1 1/2
	MPAT-4008-2	MPAT-4008-2-303	3/32	5/64	47/64	1 3/16
1/8	MPAT-4332	MPAT-4332-303	3/32	5/64	43/64	1 3/16
3/32	MPAT-4132	MPAT-4132-303	1/16	1/16	43/64	1
5/64 (2mm)	MPAT-4016	MPAT-4016-303	3/64	3/64	43/64	1
1/16	MPAT-4012	MPAT-4012-303	3/64	3/64	43/64	1

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

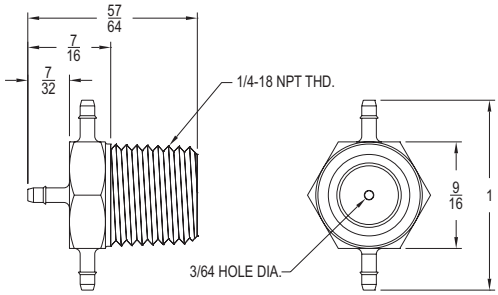
Barb Fitting – 1/4" NPT External Pipe Thread, Cross

DESCRIPTION

Cross fitting with 1/4" NPT external thread and built in barbs for 1/16" ID tubing.

MATERIAL

Brass.



Suggested Tube ID [1]	Part Number Brass
1/16	MPAC-4012

Barb Fitting – Insert

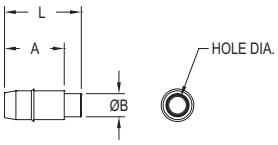
DESCRIPTION

Miniature barbed inserts for installation by braze, solder, epoxy, anaerobic adhesive, or other methods.

MATERIAL

Brass or 303 stainless steel.

NOTE: Not recommended for press fit installation.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam.	Shoulder Diam. B	Installed Length A	L
.170 to 3/16	MHPR-1008-1	MHPR-1008-1-303	3/32	.152/.154	15/32	9/16
	MHPR-1008-2	MHPR-1008-2-303	3/32	.152/.154	5/16	13/32
1/8	MHPR-1332	MHPR-1332-303	5/64 (3/32 in SS)	.121/.123	5/16	13/32
3/32	MHPR-1132	MHPR-1132-303	1/16	.088/.090	7/32	9/32
5/64 (2mm)	MHPR-1016	MHPR-1016-303	3/64	.088/.090	7/32	9/32
1/16	MHPR-1012 [2]	MHPR-1012-303 [2]	3/64	.073/.077	7/32	9/32

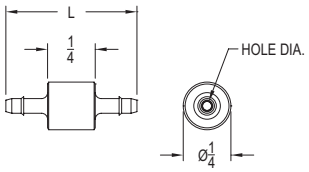
Barb Fitting – Nipple, Tubing Supported

DESCRIPTION

Tubing supported in-line nipple is used to join two tubes or hoses of the same inside diameter.

MATERIAL

Brass, 303 or 316 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	MHU-1008-2	MHU-1008-2-303	MHU-1008-2-316	1/8	1/8	7/8
1/8	MHU-1332	MHU-1332-303	MHU-1332-316	3/32	5/64	7/8
3/32	MHU-1132	MHU-1132-303		1/16	1/16	11/16
5/64 (2mm)	MHU-1016	MHU-1016-303		3/64	3/64	11/16
1/16	MHU-1012	MHU-1012-303	MHU-1012-316	3/64	3/64	11/16

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.
[2] MHPR-1012 and MHPR-1012-303 are designed with a .100 inch diameter flange, which is .020 inch wide.

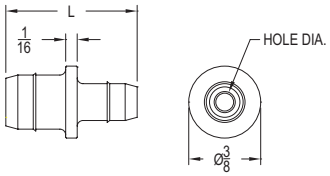
Barb Fitting – Reducing Nipple, Tubing Supported

DESCRIPTION

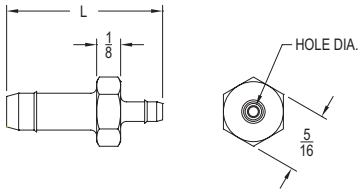
Tubing supported in-line reducing nipple used to join two tubes or hoses of different inside diameters.

MATERIAL

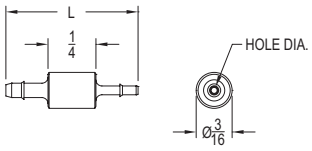
Brass or 303 stainless steel.



MHUR-1004 Models



MHUR-1008, 1332, 1132, and 1016 Models



MHUR-1012 Model

Suggested Tube ID [1] (larger)	Suggested Tube ID [1] (smaller)	Part Number Brass	Part Number 303 Stainless	Hole Diam[2]	L
1/4	.170 to 3/16	MHUR-1004-1008-2	MHUR-1004-1008-2-303	3/32	11/16
1/4	1/8	MHUR-1004-1332	MHUR-1004-1332-303	3/32	11/16
1/4	3/32	MHUR-1004-1132		1/16	19/32
1/4	5/64 (2 mm)	MHUR-1004-1016		3/64	19/32
1/4	1/16	MHUR-1004-1012		3/64	19/32
.170 to 3/16	1/8	MHUR-1008-1-1332	MHUR-1008-1-1332-303	5/64 Br (3/32 SS)	29/32
.170 to 3/16	3/32	MHUR-1008-1-1132	MHUR-1008-1-1132-303	1/16	13/16
.170 to 3/16	5/64 (2 mm)	MHUR-1008-1-1016		3/64	13/16
.170 to 3/16	1/16	MHUR-1008-1-1012	MHUR-1008-1-1012-303	3/64	13/16
.170 to 3/16	1/16	MHUR-1008-2-1012		3/64	21/32
1/8	3/32	MHUR-1332-1132	MHUR-1332-1132-303	1/16	21/32
1/8	5/64 (2 mm)	MHUR-1332-1016	MHUR-1332-1016-303	3/64	21/32
1/8	1/16	MHUR-1332-1012	MHUR-1332-1012-303	3/64	21/32
3/32	5/64 (2 mm)	MHUR-1132-1016	MHUR-1132-1016-303	3/64	9/16
3/32	1/16	MHUR-1132-1012	MHUR-1132-1012-303	3/64	9/16
5/64 (2 mm)	1/16	MHUR-1016-1012		3/64	9/16
1/16	3/64 (1.2 mm)	MHUR-1012-1046	MHUR-1012-1046-303	1/32	11/16
1/16	1/32	MHUR-1012-1031	MHUR-1012-1031-303	1/32	11/16

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.
[2] Hole dia in chart refers to the hole in the smallest of the two barbs. The hole in the larger barb may be larger than the hole in the smaller barb.

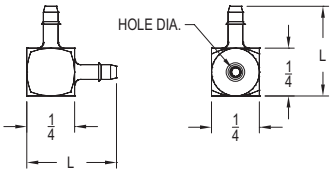
Barb Fitting – Tubing Supported, Elbow

DESCRIPTION

Tubing supported elbow used to join two tubes or hoses of the same inside diameter.

MATERIAL

Brass, 303 or 316 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	MHL-2008-2	MHL-2008-2-303		1/8	1/8	9/16
1/8	MHL-2332	MHL-2332-303	MHL-2332-316	3/32	5/64	9/16
3/32	MHL-2132		MHL-2132-316	1/16	1/16	15/32
5/64 (2mm)	MHL-2016	MHL-2016-303		3/64	3/64	15/32
1/16	MHL-2012	MHL-2012-303	MHL-2012-316	3/64	3/64	15/32

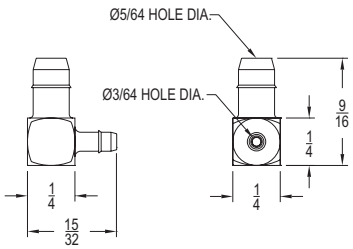
Barb Fitting – Tubing Supported, Elbow, Reducing

DESCRIPTION

Tubing supported reducing elbow used to join two tubes or hoses of different inside diameters. Additional barb size combinations are available on special order.

MATERIAL

Brass.



Suggested Tube ID [1] (larger)	Suggested Tube ID [1] (smaller)	Part Number Brass
.170 to 3/16	5/64 (2 mm)	MHL-1008-2-1016
.170 to 3/16	1/16	MHL-1008-2-1012
1/8	1/16	MHL-1332-1012

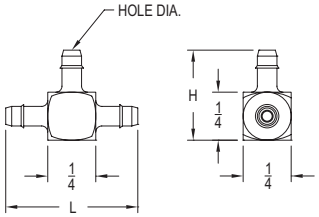
Barb Fitting – Tubing Supported, Tee

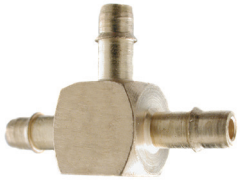
DESCRIPTION

Tubing supported tee used to join three tubes or hoses of the same inside diameter.

MATERIAL

Brass, 303 or 316 stainless steel.





Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam. SS	Hole Diam. Br	H	L
.170 to 3/16	MHT-3008-2	MHT-3008-2-303	MHT-3008-2-316	1/8	1/8	9/16	7/8
1/8	MHT-3332	MHT-3332-303	MHT-3332-316	3/32	5/64	9/16	7/8
3/32	MHT-3132	MHT-3132-303	MHT-3132-316	1/16	1/16	15/32	11/16
5/64 (2mm)	MHT-3016	MHT-3016-303	MHT-3016-316	3/64	3/64	15/32	11/16
1/16	MHT-3012	MHT-3012-303	MHT-3012-316	3/64	3/64	15/32	11/16

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

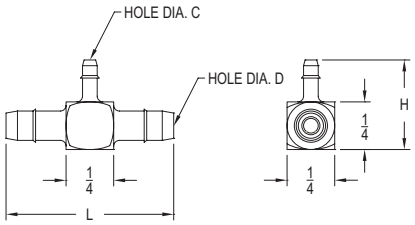
Barb Fitting – Tubing Supported, Tee, Reducer

DESCRIPTION

Tubing supported reducing tee used to join tubes or hoses of different inside diameters. Additional barb size combinations are available on special order.

MATERIAL

Brass or 303 stainless steel.



Suggested Tube ID [1] (D)	Suggested Tube ID [1] (C)	Part Number Brass	Part Number 303 Stainless	Hole Diam. C	Hole Diam. D	H	L
1/8	5/64 (2mm)	MHT-2332-1016		3/64	5/64	15/32	7/8
1/8	1/16	MHT-2332-1012	MHT-2332-1012-303	3/64	5/64	15/32	7/8
3/32	.170 to 3/16	MHT-2132-1008-2		3/32	1/16	9/16	11/16

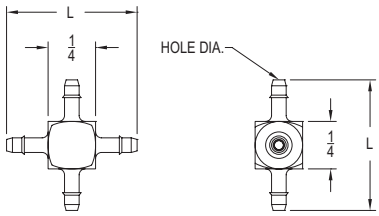
Barb Fitting – Tubing Supported, Cross

DESCRIPTION

Tubing supported cross used to join four tubes or hoses of the same inside diameter. Cross is available with different barb size combinations on special order.

MATERIAL

Brass or 303 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hole Diam. SS	Hole Diam. Br	L
.170 to 3/16	MHC-4008-2	MHC-4008-2-303	1/8	1/8	7/8
1/8	MHC-4332	MHC-4332-303	3/32	5/64	7/8
3/32	MHC-4132	MHC-4132-303	1/16	1/16	11/16
5/64 (2 mm)	MHC-4016	MHC-4016-303	3/64	3/64	11/16
1/16	MHC-4012	MHC-4012-303	3/64	3/64	11/16

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

PUSH-TO-CONNECT FITTINGS

Beswick PTC series push-to-connect fittings are designed for use in challenging applications. The PTC incorporates Beswick's captured O-ring face seal technology for leak tight performance, and all components, including the release collar, are fabricated from stainless steel. Beswick PTC fittings can be used with tubing materials such as 90+ durometer polyurethane, nylon, Teflon, and polyethylene.

Straight Push-to-Connect Fittings - PTC

DESCRIPTION

Beswick PTC series all stainless steel push-to-connect fittings provide quick and simple tubing connection/disconnection and leak-tight performance in a space saving package.

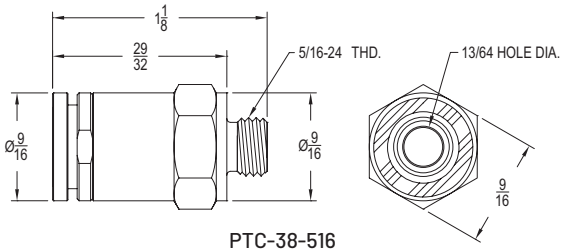
MATERIAL

303 or 316 stainless steel body. All configurations also contain a 17-7 PH stainless steel component, which is not in the flow path.

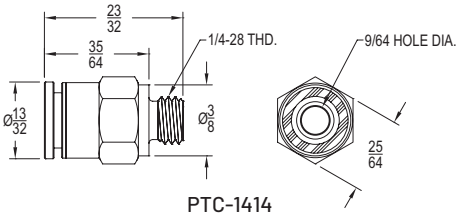
SEALS

Buna-N O-rings. Optional materials: Fluorocarbon, Silicone, and EPDM. See Page 11.

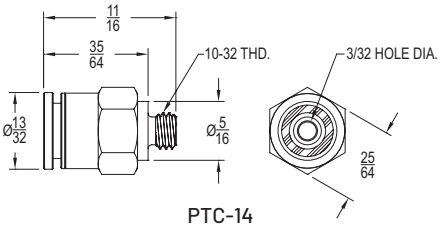
Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless	Thread Size	Installed Height	Through Hole
3/8"	PTC-38-516-303		5/16-24	29/32	13/64
1/4"	PTC-1414-303		1/4-28	35/64	9/64
1/4"	PTC-14-303	PTC-14-316	10-32	35/64	3/32
6 mm	PTC-6MM-303		10-32	35/64	3/32
5/32" (4 mm)	PTC-532-303		10-32	37/64	3/32
1/8"	PTC-18-303	PTC-18-316	10-32	35/64	3/32
1/16"	PTC-16-303		10-32	13/32	3/64
1/16"	PTC-16M3-303		M3	11.2 mm	1 mm



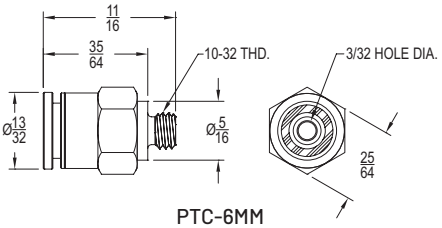
PTC-38-516



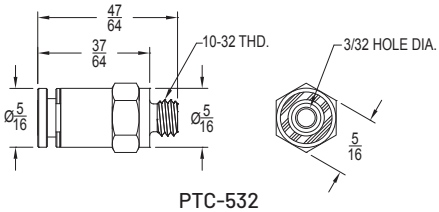
PTC-1414



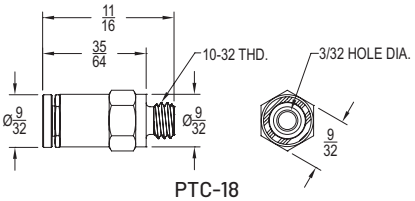
PTC-14



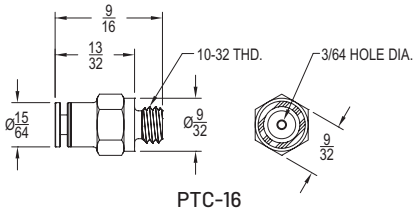
PTC-6MM



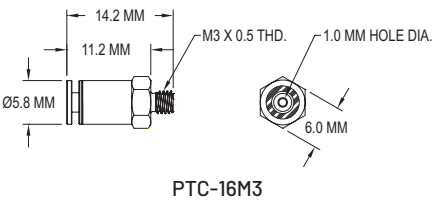
PTC-532



PTC-18



PTC-16



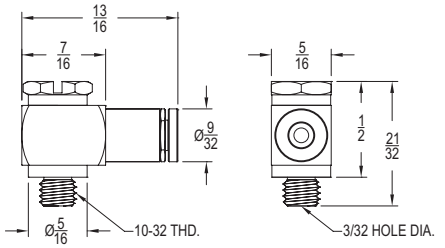
PTC-16M3

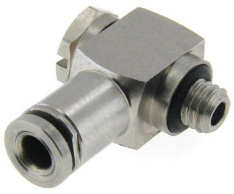
1/8" OD Tube – 10-32 Thread, Elbow, Adjustable Position

DESCRIPTION
10-32 thread to 1/8" OD tube fitting, elbow, adjustable position.

MATERIAL
303 or 316 stainless steel body. All configurations also contain a 17-7 PH stainless steel component, which is not in the flow path.

SEALS
Three Buna-N O-rings. Optional materials: Fluorocarbon, Silicone, and EPDM. See Page 11.





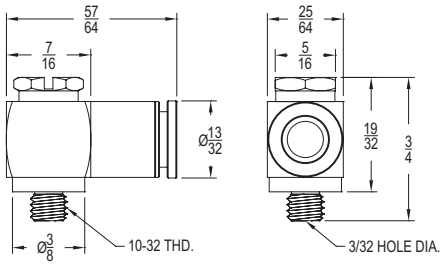
Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height
1/8	PTCSL-18-303	PTCSL-18-316	1/2

1/4" OD Tube – 10-32 Thread, Elbow, Adjustable Position

DESCRIPTION
10-32 thread to 1/4" OD tube fitting, elbow, adjustable position.

MATERIAL
303 or 316 stainless steel. All configurations also contain a 17-7 PH stainless steel component, which is not in the flow path.

SEALS
Three Buna-N O-rings. Optional materials: Fluorocarbon, Silicone, and EPDM. See Page 11.



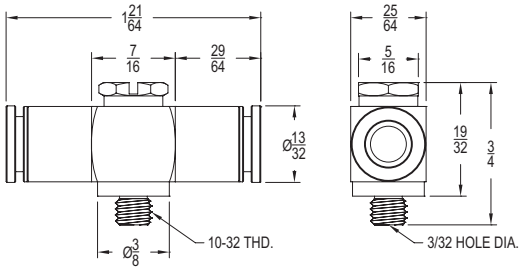
Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height
1/4	PTCSL-14-303	PTCSL-14-316	19/32

1/4" OD Tube – 10-32 Thread, Tee, Adjustable Position

DESCRIPTION
10-32 thread to 1/4" OD tube fitting, tee, adjustable position.

MATERIAL
303 or 316 stainless steel body. All configurations also contain a 17-7 PH stainless steel component, which is not in the flow path.

SEALS
Four Buna-N O-rings. Optional materials: Fluorocarbon, Silicone, and EPDM. See Page 11.



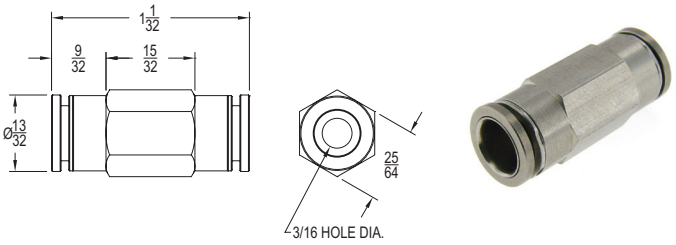
Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height
1/4	PTCST-14-303	PTCST-14-316	19/32

1/4" OD Tube – 1/4" OD Tube, Straight

DESCRIPTION
1/4" OD tube to 1/4" OD tube fitting.

MATERIAL
303 or 316 stainless steel body. All configurations also contain a 17-7 PH stainless steel component, which is not in the flow path.

SEALS
Two Buna-N O-rings. Optional materials: Fluorocarbon, Silicone, and EPDM. See Page 11.



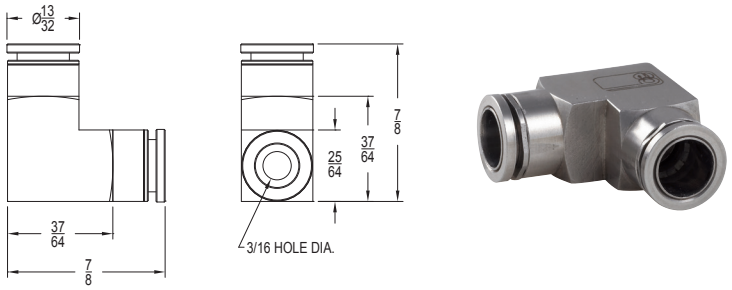
Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless
1/4	PTCU-14-303	PTCU-14-316

1/4" OD Tube – 1/4" OD Tube, Elbow, Fixed Position

DESCRIPTION
1/4" OD tube to 1/4" OD tube fitting, elbow, fixed position.

MATERIAL
303 or 316 stainless steel body. All configurations also contain a 17-7 PH stainless steel component, which is not in the flow path.

SEALS
Two Buna-N O-rings. Optional materials: Fluorocarbon, Silicone, and EPDM. See page 11.



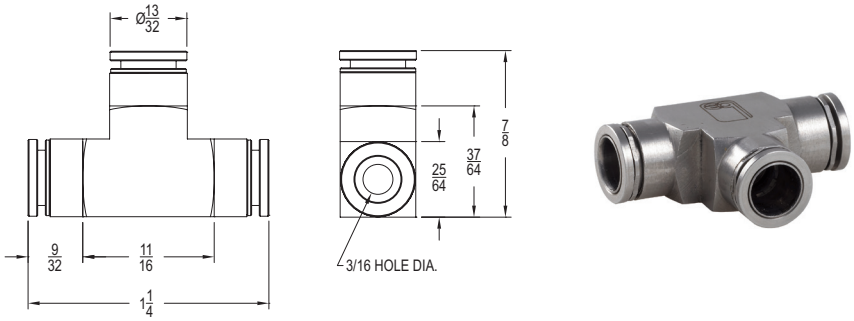
Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless
1/4	PTCUL-14-303	PTCUL-14-316

1/4" OD Tube, Tee, Fixed Position

DESCRIPTION
1/4" OD tube to 1/4" OD tube fitting, tee, fixed position.

MATERIAL
303 or 316 stainless steel body. All configurations also contain a 17-7 PH stainless steel component, which is not in the flow path.

SEALS
Three Buna-N O-rings. Optional materials: Fluorocarbon, Silicone, and EPDM. See Page 11.



Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless
1/4	PTCUT-14-303	PTCUT-14-316

COMPRESSION FITTINGS

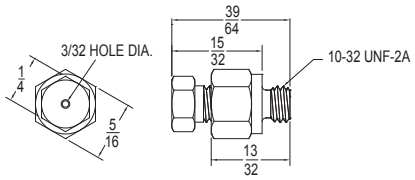
NEW

Fitting for 1/32" OD Tubing - 10-32 Thread

DESCRIPTION
Miniature compression fitting with 10-32 external thread, for 1/32" OD stiff plastic or metal tubing.

MATERIAL
303 stainless steel body, screw (MCB-32-303-SCREW), and ferrules.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See Page 11.



Suggested Tube OD	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/32	MCB-32-303	TPSS-32

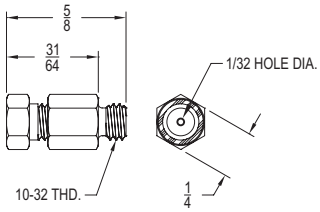
Fitting for 1/16" OD Tubing – 10-32 Thread - 1/4" Hex

DESCRIPTION
Miniature compression fitting with 10-32 thread for 1/16" OD plastic or metal tubing. It has a 1/4" hex body.

MATERIAL
303 stainless steel body, screw (MCB-16-303-SCREW), and ferrules.

SEALS
One Buna-N O-ring, OR-14-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, Fluorosilicone and FFKM. See Page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "16" in the part number.



Suggested Tube OD	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/16	MCB-16-14-303	TPSS-16

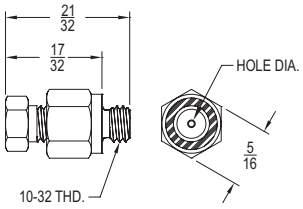
Fitting for 1/16" OD Tubing – 10-32 Thread - 5/16" Hex

DESCRIPTION
Miniature compression fitting with 10-32 thread for 1/16" OD plastic or metal tubing. It has a 5/16" hex body.

MATERIAL
Electroless nickel plated brass (ENP), 303, or 316 stainless steel body and screw (MCB-16-ENP-SCREW, MCB-16-303-SCREW, or MCB-16-316-SCREW). Brass, 303, or 316 stainless steel ferrules.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene.

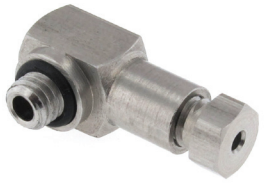
NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "1016" in the part number.



Suggested Tube OD	Part Number ENP Brass [1]	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam.	Pre-Swage Tool (p.64)
1/16	MCB-1016-ENP	MCB-1016-303	MCB-1016-316	1/32	TPSS-16
1/16	MCB-1016-ENP-067	MCB-1016-303-067	MCB-1016-316-067	.067 [2]	TPSS-16

[1] Ferrules are supplied in brass. Body, screw, and stud (if applicable) are electroless nickel plated brass.
[2] Larger through hole is designed for use with a thermocouple.

Fitting for 1/16" OD Tubing – 10-32 Thread, Low Profile Elbow, Adjustable Position



DESCRIPTION

Miniature compression fitting with 10-32 thread for 1/16" OD plastic or metal tubing. This adjustable position elbow has a recessed stud for a low profile configuration.

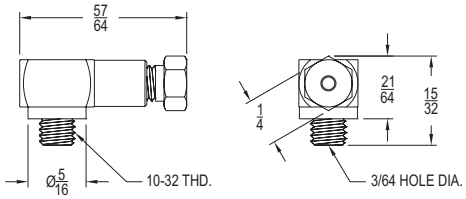
MATERIAL

Electroless nickel plated brass (ENP), 303, or 316 stainless steel body, stud (MS-2000-ENP, MS-2000-303, or MS-2000-316), and screw (MCB-16-ENP-SCREW, MCB-16-303-SCREW, or MCB-16-316-SCREW). Brass, 303, or 316 stainless steel ferrules.

SEALS

Two Buna-N O-rings, OR-14-B, and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "1016" in the part number.



Suggested Tube OD	Part Number ENP Brass [1]	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/16	SMCBL-1016-ENP	SMCBL-1016-303	SMCBL-1016-316	TPSL-16

Fitting for 1/16" OD Tubing – 10-32 Thread, Tee, Adjustable Position

DESCRIPTION

Miniature tee compression fitting with 10-32 thread, for 1/16" OD plastic or metal tubing. This adjustable position tee has a recessed stud for a low profile configuration.

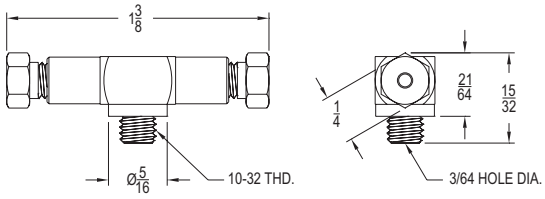
MATERIAL

Electroless nickel plated brass (ENP), 303, or 316 stainless steel body, stud (MS-2000-ENP, MS-2000-303, or MS-2000-316), and screws (MCB-16-ENP-SCREW, MCB-16-303-SCREW, or MCB-16-316-SCREW). Brass, 303, or 316 stainless steel ferrules.

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "1016" in the part number.



Suggested Tube OD	Part Number ENP Brass [1]	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/16	SMCBT-1016-ENP	SMCBT-1016-303	SMCBT-1016-316	TPSL-16

[1] Ferrules are supplied in brass. Body, screw, and stud (if applicable) are electroless nickel plated brass.

Fitting for 1/16" OD Tubing – 10-32 Thread, Tee, Adjustable Position

DESCRIPTION

Adjustable position tee with one 10-32 external thread, one 10-32 internal thread, and one compression connection for 1/16" OD plastic or metal tubing.

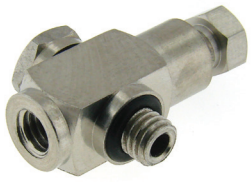
MATERIAL

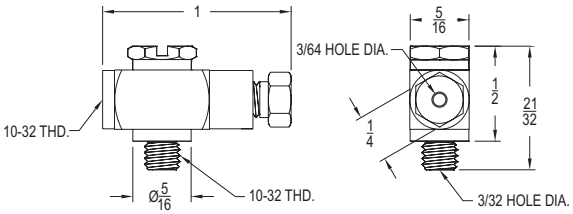
Electroless nickel plated brass (ENP), 303, or 316 stainless steel body, and screw (MCB-16-ENP-SCREW, MCB-16-303-SCREW, or MCB-16-316-SCREW). 303 or 316 stainless steel stud (MS-1000-303 or MS-1000-316). Brass, 303, or 316 stainless steel ferrules.

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, TFE/P, Teflon®, FFKM, and Fluorosilicone. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "16" in the part number.





Suggested Tube OD	Part Number ENP Brass [1]	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/16	MCBT-16-10-ENP	MCBT-16-10-303	MCBT-16-10-316	TPSL-16

Fitting for 1/8" OD Tubing – 10-32 Thread

DESCRIPTION

Miniature compression fitting with 10-32 thread for 1/8" OD plastic or metal tubing.

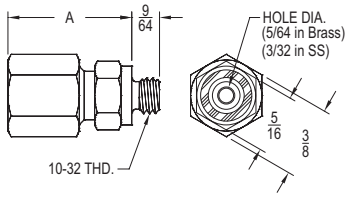
MATERIAL

Brass, 303, or 316 stainless steel body, nut (MCB-18-NUT, MCB-18-303-NUT, or MCB-18-316-NUT), and ferrules. MCN-1018 consists of a brass body with a nylon nut and ferrule combined in one piece (MCN-1018-NUT).

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "-P" (e.g. MCB-1018-P-303).



Suggested Tube OD	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height A	Pre-Swage Tool (p.64)
1/8 (metal)	MCB-1018			21/32	TPSB-18 (brass)
1/8 (metal or plastic)	MCB-1018-1	MCB-1018-1-303	MCB-1018-1-316	21/32	TPSB-18 (brass) TPSS-18-1 (SS)
1/8 (nylon)	MCN-1018			25/32	N/A

[1] Ferrules are supplied in brass. Body and screw are electroless nickel plated brass. Stud is 303 stainless steel.

Fitting for 1/8" OD Tubing – 10-32 Thread, Elbow, Adjustable Position

DESCRIPTION

Miniature compression fitting elbow with 10-32 thread for 1/8" OD plastic or metal tubing. Adjustable position design.

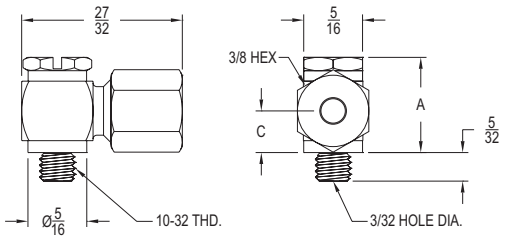
MATERIAL

Brass, 303, or 316 stainless steel body, nut (MCB-18-NUT, MCB-18-303-NUT, or MCB-18-316-NUT), and ferrules. 303 or 316 stainless steel stud (MS-1000-303, MS-1000-316, or MS-1000-TALL).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.

NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "-P" (e.g. MCBL-1018-P-303).



Suggested Tube OD	Part Number Brass Body & 303 SS stud	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height A	Outlet Height C	Pre-Swage Tool (p.64)
1/8 (metal)	MCBL-1018			1/2	7/32	TPSB-18
1/8 (metal or plastic)	MCBL-1018-1	MCBL-1018-1-303	MCBL-1018-1-316	1/2	7/32	TPSB-18 (brass) TPSS-18-1 (SS)
1/8 (metal)	MCBL-1018-TALL			19/32	5/16	TPSB-18
1/8 (metal or plastic)	MCBL-1018-1-TALL			19/32	5/16	TPSB-18

Fitting for 1/8" OD Tubing – 10-32 Thread, Tee, Adjustable Position

DESCRIPTION

Miniature compression fitting tee with 10-32 thread for 1/8" OD tubing. Adjustable position design.

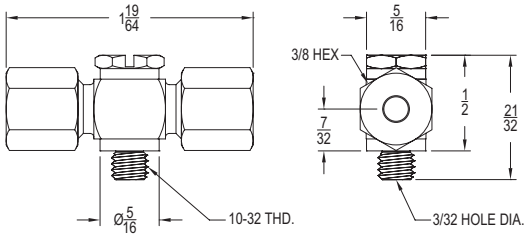
MATERIAL

Brass or 303 stainless steel body, nuts (MCB-18-NUT or MCB-18-303-NUT) and ferrules. 303 stainless steel stud (MS-1000-303).

SEALS

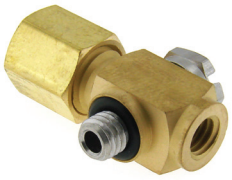
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone, and FFKM. See page 11.

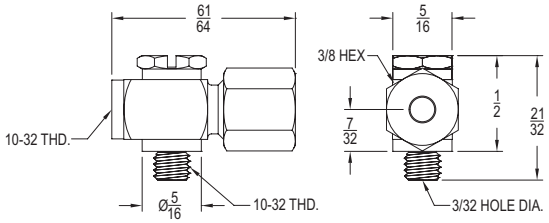
NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "-P" (e.g. MCBT-1018-P-303).



Suggested Tube OD	Part Number Brass Body & 303 SS stud	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/8 (metal)	MCBT-1018		TPSB-18
1/8 (metal or plastic)	MCBT-1018-1	MCBT-1018-1-303	TPSB-18 (brass) TPSS-18-1 (SS)

Fitting for 1/8" OD Tubing – 10-32 Thread, Tee, Adjustable Position





DESCRIPTION

Miniature compression fitting tee for 1/8" OD plastic or metal tubing and 10-32 internal thread. Adjustable position design.

MATERIAL

Brass, 303, or 316 stainless steel body, nut (MCB-18-NUT, MCB-18-303-NUT, or MCB-18-316-NUT), and ferrules.
303 or 316 stainless steel stud (MS-1000-303, or MS-1000-316).

SEALS

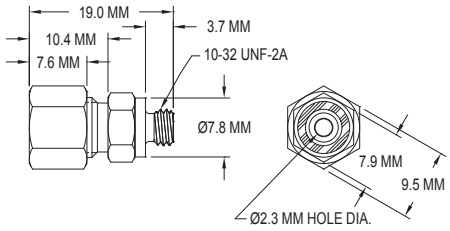
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, TFE/P, Teflon®, FFKM, and Fluorosilicone. See page 11.

NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "-P" (e.g. MCBT-18-P-10-303).

Suggested Tube OD	Part Number Brass Body & 303 SS stud	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/8 (metal)	MCBT-18-10			TPSB-18
1/8 (metal or plastic)	MCBT-18-1-10	MCBT-18-1-10-303	MCBT-18-1-10-316	TPSB-18 (brass) TPSS-18-1 (SS)

NEW

Fitting for 4 MM OD Tubing – 10-32 Thread



DESCRIPTION

Miniature compression fitting with 10-32 external thread for 4mm OD stiff plastic or metal tubing.

MATERIAL

303 stainless steel body, nut (MCB-4MM-303-NUT), and ferrules.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

Suggested Tube OD	Part Number 303 Stainless	Pre-Swage Tool (p.64)
4 MM	MCB-4MM-303	TPSS-4MM

Fitting for 1/4" OD Tubing – 10-32 Thread

DESCRIPTION

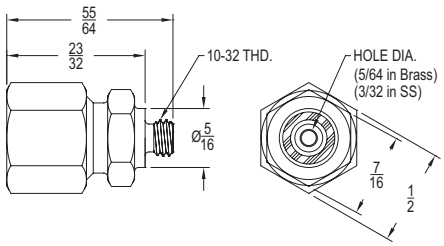
Miniature compression fitting with 10-32 thread for 1/4" OD plastic or metal tubing.

MATERIAL

Brass, 303, or 316 stainless steel body, nut (MCB-14-NUT, MCB-14-303-NUT, or MCB-14-316-NUT), and ferrules.

SEALS

One Buna-N O-ring OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Suggested Tube OD	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/4	MCB-14	MCB-14-303	MCB-14-316	TPSS-14

Fitting for 1/4" OD Tubing – 10-32 Thread, Elbow, Adjustable Position

DESCRIPTION

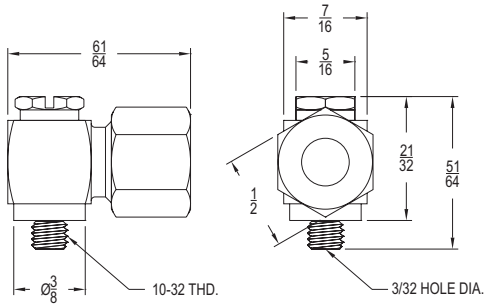
Miniature compression fitting elbow with 10-32 thread for 1/4" OD plastic or metal tubing. Adjustable position.

MATERIAL

Brass, 303, or 316 stainless steel body, nut (MCB-14-NUT, MCB-14-303-NUT, or MCB-14-316-NUT), and ferrules. 303 or 316 stainless steel stud.

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone, and FFKM. See page 11.



Suggested Tube OD	Part Number Brass Body & 303 SS Stud	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/4	MCBL-14	MCBL-14-303	MCBL-14-316	TPSS-14

Fitting for 6 MM OD Tubing – 10-32 Thread

DESCRIPTION

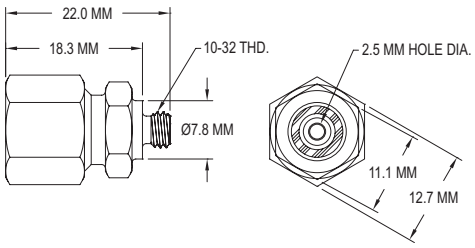
Miniature compression fitting with 10-32 thread for 6 MM OD plastic or metal tubing.

MATERIAL

303 stainless steel body, nut (MCB-6MM-303-NUT), and ferrules.

SEALS

One Buna-N O-ring OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Suggested Tube OD	Part Number 303 Stainless
6 MM	MCB-6MM-303

Fitting for 1/32", 1/16", 1/8" or 1/4" OD Teflon Tubing – 10-32 Thread

DESCRIPTION

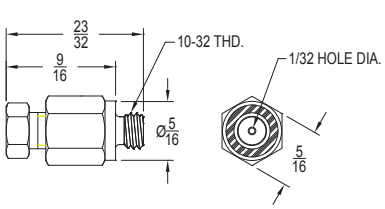
Miniature compression fitting with 10-32 thread for 1/32", 1/16", 1/8", or 1/4" OD Teflon® tubing. Internal O-ring seals provide a redundant leak-tight connection for difficult to seal situations such as when using Teflon® tubing.

MATERIAL

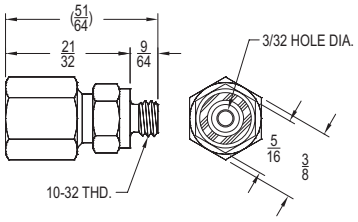
303 or 316 stainless steel body, nut (MCB-4T-303-NUT, MCB-18-303-NUT, MCB-18-316-NUT, MCB-16-303-SCREW, or MCB-32-303-SCREW), and ferrules.

SEALS

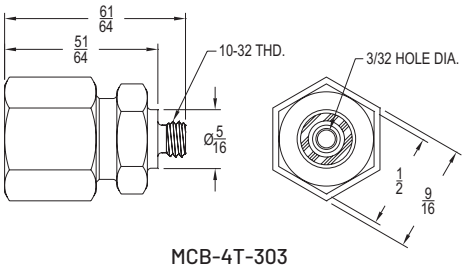
Three Buna-N O-rings, OR-516-40-B and two internal Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.



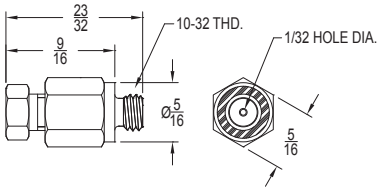
MCB-6T-303



MCB-8T-303



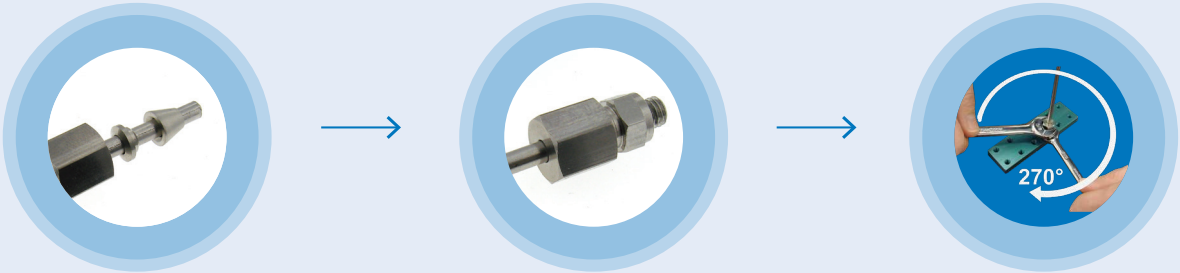
MCB-4T-303



MCB-3T-303

Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless
1/4	MCB-4T-303	
1/8	MCB-8T-303	MCB-8T-316
1/16	MCB-6T-303	
1/32	MCB-3T-303	

SPOTLIGHT: Installing A Compression Fitting



STEP 1

Slide the top assembly of the compression fitting onto the plastic or metal tubing in the following order: compression fitting screw/nut, rear ferrule (if applicable), front ferrule.

STEP 2

Press the end of the tubing into the fitting body, and finger tighten the compression fitting cap.

STEP 3

With a wrench on both the screw/nut and the compression fitting body, tighten the cap approximately 1/2 to 3/4 turn, or 180 to 270 degrees of rotation past finger tight.

The front (conical) ferrule may spin even after swaging; however it should not be able to move up and down along the tubing. For future connections tighten the screw/nut 1/8 to 1/4 turn past finger tight. These instructions are meant to serve as general guidelines only. For more detailed instructions, visit our website.

Fitting for 1/8" OD Tubing – 1/4-20 Thread, Elbow, Adjustable Position

DESCRIPTION

Miniature compression fitting with 1/4-20 thread for 1/8" OD plastic or metal tubing. Adjustable position.

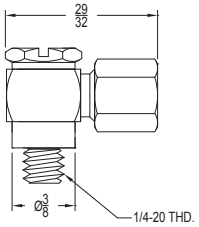
MATERIAL

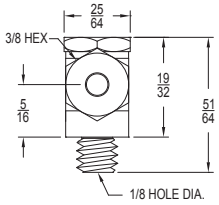
Brass or 303 stainless steel body, nut (MCB-18-NUT or MCB-18-303-NUT) and ferrules. 303 stainless steel stud.

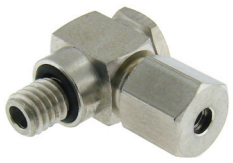
SEALS

Two Buna-N O-rings, OR-1428-B and OR-1428-52-B. Optional materials: Fluorocarbon, EPDM, and Silicone. See page 11.

NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "181" portion of the part number with "18P".







Suggested Tube OD	Part Number Brass Body 303 SS Stud	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/8 (metal)	MCBL18-1420		TPSB-18
1/8 (metal or plastic)	MCBL181-1420	MCBL181-1420-3	TPSB-18 (Brass) TPSS-18-1 (SS)

Fitting for 1/8" OD Tubing – 1/4-28 Thread

DESCRIPTION

Miniature compression fitting with 1/4-28 thread for 1/8" OD plastic or metal tubing.

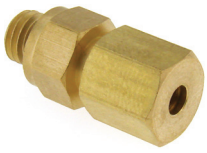
MATERIAL

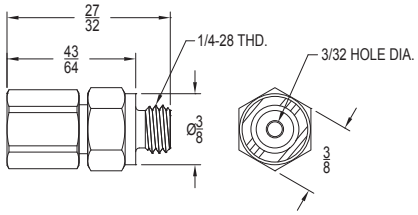
Brass, 303, or 316 stainless steel body, nut (MCB-18-NUT, MCB-18-303-NUT, or MCB-18-316-NUT), and ferrules.

SEALS

One Buna-N O-ring, OR-1428-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, and Chloroprene. See page 11.

NOTE:Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "P" (e.g. MCB-1018-P-1428-303).





Suggested Tube OD	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/8 (metal)	MCB-1018-1428			TPSB-18
1/8 (metal or plastic)	MCB-1018-1-1428	MCB-1018-1-1428-303	MCB-1018-1-1428-316	TPSB-18 (brass) TPSS-18-1 (SS)

Fitting for 1/8" OD Tubing – 1/4-28 Thread, Elbow, Adjustable Position

DESCRIPTION

Miniature compression fitting with 1/4-28 thread for 1/8" OD plastic or metal tubing. Adjustable position.

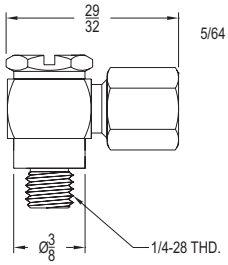
MATERIAL

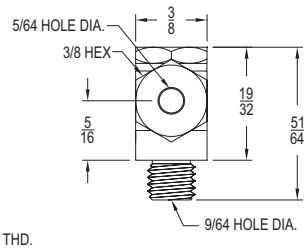
Brass or 303 stainless steel body, nut (MCB-18-NUT or MCB-18-303-NUT) and ferrules. 303 stainless steel stud.

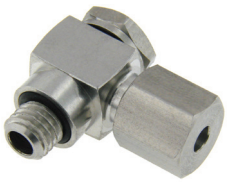
SEALS

Two Buna-N O-rings, OR-1428-B and OR-1428-52-B.Optional materials: EPDM, Fluorocarbon and Silicone. See page 11.

NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "181" portion of the part number with "18P".







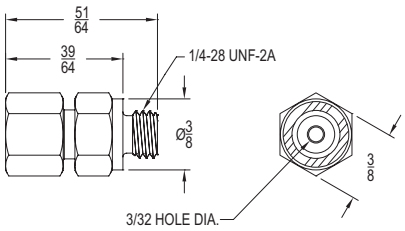
Suggested Tube OD	Part Number Brass Body & 303 SS Stud	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/8 (metal)	MCBL18-1428		TPSB-18
1/8 (metal or plastic)	MCBL181-1428	MCBL181-1428-3	TPSB-18 (brass) TPSS-18-1 (SS)

Fitting for 4 MM OD Tubing - 1/4-28 Thread

DESCRIPTION
Miniature compression fitting with 1/4-28 thread for 4 mm OD tubing.

MATERIAL
Brass or 303 stainless steel body, nut (MCB-4MM-NUT or MCB-4MM-303-NUT), and ferrules.

SEALS
One Buna-N O-ring, OR-1428-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, and Chloroprene. See page 11.



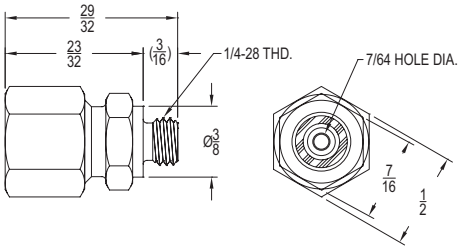
Suggested Tube OD	Part Number Brass	Part Number 303 Stainless	Pre-Swage Tool (p.64)
4 MM	MCB-4MM-1428	MCB-4MM-1428-303	TPSS-4MM

Fitting for 1/4" OD Tubing – 1/4-28 Thread

DESCRIPTION
Miniature compression fitting with 1/4-28 thread for 1/4" OD plastic or metal tubing.

MATERIAL
Brass, 303, or 316 stainless steel body, nut (MCB-14-NUT, MCB-14-303-NUT, or MCB-14-316-NUT), and ferrules.

SEALS
One Buna-N O-ring, OR-1428-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, and Chloroprene. See page 11.



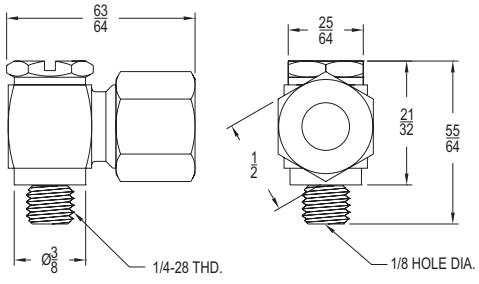
Suggested Tube OD	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/4	MCB-1414	MCB-1414-303	MCB-1414-316	TPSS-14

Fitting for 1/4" OD Tubing – 1/4-28 Thread, Elbow, Adjustable Position

DESCRIPTION
Miniature compression fitting elbow with 1/4-28 thread for 1/4" OD plastic or metal tubing. Adjustable position.

MATERIAL
303 or 316 stainless steel body, stud, nut (MCB-14-303-NUT or MCB-14-316-NUT), and ferrules.

SEALS
Two Buna-N O-rings, OR-1428-B and OR-1428-52-B. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.



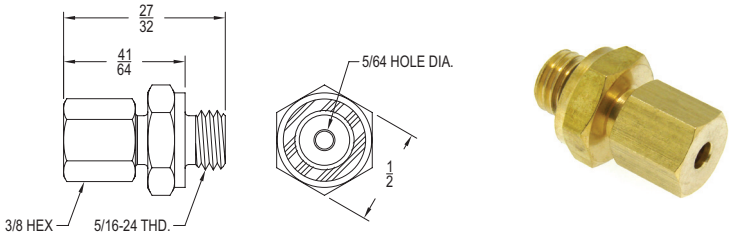
Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/4	MCBL-1414-303	MCBL-1414-316	TPSS-14

Fitting for 1/8" OD Tubing – 5/16-24 Thread

DESCRIPTION
Miniature compression fitting with 5/16-24 thread for 1/8" OD plastic or metal tubing.

MATERIAL
Brass body, nut (MCB-18-NUT), and ferrule.

SEALS
One Buna-N O-ring, OR-51624-B. Optional materials: Fluorocarbon and EPDM. See page 11.



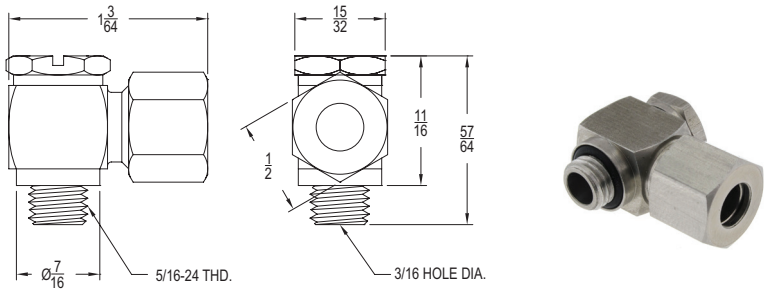
Suggested Tube OD	Part Number Brass	Pre-Swage Tool (p.64)
1/8 (metal)	MCB18-51624	TPSB-18
1/8 (metal or plastic)	MCB181-51624	TPSB-18

Fitting for 1/4" OD Tubing – 5/16-24 Thread, Elbow, Adjustable Position

DESCRIPTION
Miniature compression fitting elbow with 5/16-24 thread for 1/4" OD plastic or metal tubing. Adjustable position.

MATERIAL
Brass or 303 stainless steel body, nut (MCB-14-NUT or MCB-14-303-NUT), and ferrules. 303 stainless steel stud.

SEALS
Two Buna-N O-rings. Optional materials: Fluorocarbon. See page 11.



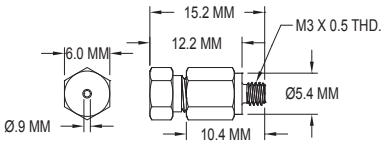
Suggested Tube OD	Part Number Brass Body & 303 SS Stud	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/4	MCBL-14-51624	MCBL-14-51624-3	TPSS-14

NEW Fitting for 1/32" OD Tubing - M3 Thread

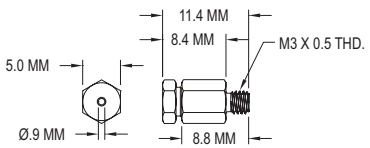
DESCRIPTION
Miniature compression fitting with M3 external thread for 1/32" OD stiff plastic or metal tubing.

MATERIAL
303 stainless steel body, screw (M3CB6H-32-303-SCREW, or M3CB5H-32-303-SCREW), and ferrules.

SEALS
One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



M3CB6H-32-303



M3CB5H-32-303

Suggested Tube OD	Part Number 303 Stainless	Hex Size	Pre-Swage Tool (p.64)
1/32	M3CB6H-32-303	6mm	TPSS-32
1/32	M3CB5H-32-303	5mm	TPSS-32

Fitting for 1/16" OD Tubing – M3 Thread

DESCRIPTION

Miniature compression fitting with M3 thread for 1/16" OD plastic or metal tubing.

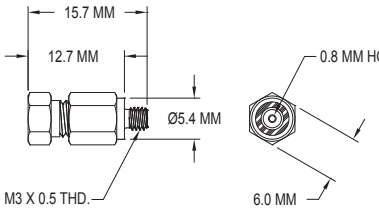
MATERIAL

303 or 316 stainless steel body, screw (M3CB-16-303-SCREW, M3CB-16-316-SCREW, or M3CB5H-16-303-SCREW), and ferrules.

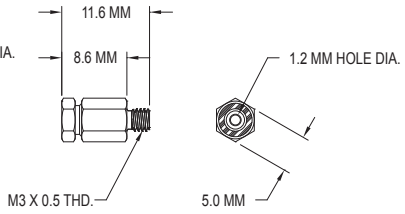
SEALS

One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "1016" or "16" in the part number.



M3CB-1016-303



M3CB5H-16-303

Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless	Hex Size	Pre-Swage Tool (p.64)
1/16	M3CB-1016-303	M3CB-1016-316	6 mm	TPSS-16-M5
1/16	M3CB5H-16-303		5 mm	TPSS-16-M4.5

Fitting for 1/16" OD Tubing – M3 Thread, Low Profile Elbow, Adjustable Position

DESCRIPTION

Miniature compression fitting elbow with M3 thread for 1/16" OD plastic or metal tubing. Adjustable position.

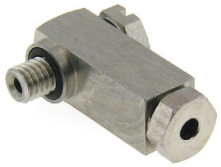
MATERIAL

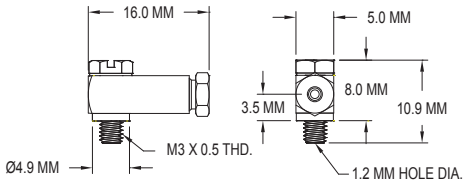
303 stainless steel body, stud, screw (M3CB-16-303-SCREW), and ferrules.

SEALS

Two Buna-N O-rings, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.

Note: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "1016" in the part number.





Suggested Tube OD	Part Number 303 Stainless	Hex Size	Pre-Swage Tool (p.64)
1/16	M3CBL-1016-303	5 mm	TPSS-16-M4.5

Fitting for 1/16" OD Tubing – M3 Thread, Low Profile Tee, Adjustable Position

DESCRIPTION

Miniature compression fitting tee with M3 thread for 1/16" OD plastic or metal tubing. Adjustable position.

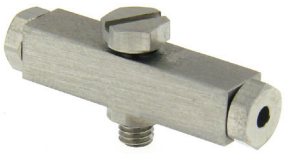
MATERIAL

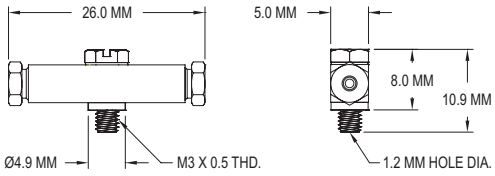
303 stainless steel body, stud (M3S-1001-303), screws (M3CB5H-16-303-SCREW), and ferrules.

SEALS

Two Buna-N O-rings, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "1016" in the part number.





Suggested Tube OD	Part Number 303 Stainless	Hex Size	Pre-Swage Tool (p.64)
1/16	M3CBT-1016-303	5 mm	TPSS-16-M4.5

Fitting for 1/8" OD Tubing – M3 Thread

DESCRIPTION

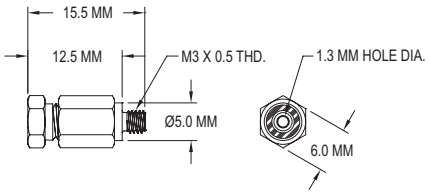
Miniature compression fitting with M3 thread for 1/8" OD plastic or metal tubing.

MATERIAL

303 or 316 stainless steel body, screw (M3CB-182-3-SCREW or M3CB-182-6-SCREW), and ferrules.

SEALS

One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/8 (metal or plastic)	M3CB-1018-2-303	M3CB-1018-2-316	TPSS-18-M5.5

Fitting for 1/16" OD Tubing – M4 Thread

DESCRIPTION

Miniature compression fitting with M4 thread for 1/16" OD plastic or metal tubing.

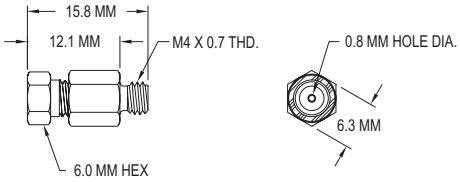
MATERIAL

303 stainless steel body, screw (M3CB-16-303-SCREW), and ferrules.

SEALS

One Buna-N O-ring, OR-14-B. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, Fluorosilicone and FFKM. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "1016" in the part number.



Suggested Tube OD	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/16	M4CB-1016-303	TPSS-16-M5

Fitting for 1/16" OD Tubing – M5 Thread

DESCRIPTION

Miniature compression fitting with M5 thread for 1/16" OD plastic or metal tubing. It has a 5/16" hex body.

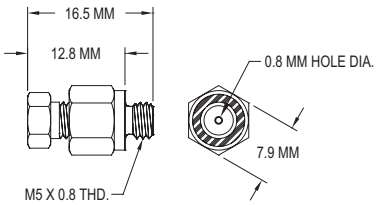
MATERIAL

303 stainless steel body, screw (M3CB-16-303-SCREW), and ferrules.

SEALS

One Buna-N O-ring OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "1016" in the part number.



Suggested Tube OD	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/16	M5CB-1016-303	TPSS-16-M5

Fitting for 1/16" OD Tubing – M5 Thread, Low Profile Elbow, Adjustable Position

DESCRIPTION

Miniature compression fitting with M5 thread for 1/16" OD plastic or metal tubing. Adjustable position.

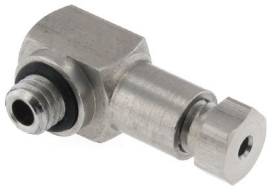
MATERIAL

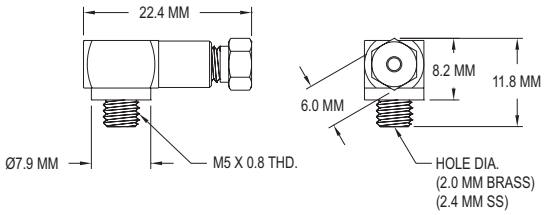
Electroless nickel plated (ENP) brass, 303, or 316 stainless steel body, stud (M5S-2000-ENP, M5S-2000-303, or M5S-2000-316), and screw (M3CB-16-ENP-SCREW, M3CB-16-303-SCREW, or M3CB-16-316-SCREW). Brass, 303, or 316 stainless steel ferrules.

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "16" in the part number.





Suggested Tube OD	Part Number ENP Brass [1]	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/16	S5MCBL-16-ENP	S5MCBL-16-303	S5MCBL-16-316	TPSL-16-M5

Fitting for 1/16" OD Tubing – M5 Thread, Tee, Adjustable Position

DESCRIPTION

Miniature compression fitting tee with M5 thread for 1/16" OD plastic or metal tubing. Adjustable position.

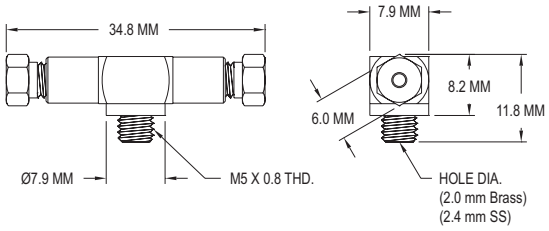
MATERIAL

Electroless nickel plated (ENP) brass, 303, or 316 stainless steel body, stud (M5S-2000-ENP, M5S-2000-303, or M5S-2000-316), and screws (M3CB-16-ENP-SCREW, M3CB-16-303-SCREW, or M3CB-16-316-SCREW). Brass, 303, or 316 stainless steel ferrules.

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.

NOTE: This item is compatible with optional 1/16" PEEK ferrules. To order add "-P" after "16" in the part number.



Suggested Tube OD	Part Number ENP Brass [1]	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/16	S5MCBT-16-ENP	S5MCBT-16-303	S5MCBT-16-316	TPSL-16-M5

[1] Ferrules are supplied in brass. Body, stud, and screw are electroless nickel plated brass.

Fitting for 1/8" OD Tubing – M5 Thread

DESCRIPTION

Miniature compression fitting with M5 thread for 1/8" OD plastic or metal tubing.

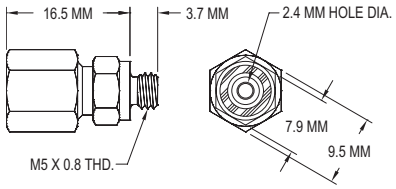
MATERIAL

303 or 316 stainless steel body, nut (MCB-18-303-NUT or MCB-18-316-NUT), and ferrules.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene.
See page 11.

NOTE: This item is compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "-P" (e.g. M5CB-1018-P-303).



Suggested Tube OD	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/8 (metal or plastic)	M5CB-1018-1-303	M5CB-1018-1-316	TPSS-18-1

Fitting for 1/8" OD Tubing – M5 Thread, Elbow, Adjustable Position

DESCRIPTION

Miniature compression fitting with M5 thread for 1/8" OD plastic or metal tubing. Adjustable position.

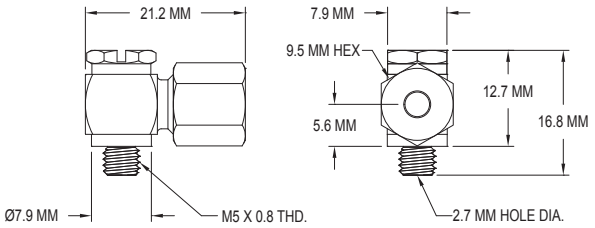
MATERIAL

Brass, 303, or 316 stainless steel body, nut (MCB-18-NUT, MCB-18-303-NUT, or MCB-18-316-NUT), and ferrules.
303 or 316 stainless steel stud (M5S-1000-303 or M5S-1000-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM.
See page 11.

NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "-P" (e.g. M5CBL-1018-P-303).



Suggested Tube OD	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud	Pre-Swage Tool (p.64)
1/8 (metal)	M5CBL-1018			TPSB-18
1/8 (metal or plastic)	M5CBL-1018-1	M5CBL-1018-1-303	M5CBL-1018-1-316	TPSB-18 (brass) TPSS-18-1 (SS)

Fitting for 1/8" OD Tubing – M5 Thread, Tee, Adjustable Position

DESCRIPTION

Miniature compression fitting tee with M5 thread for 1/8" OD plastic or metal tubing. Adjustable position.

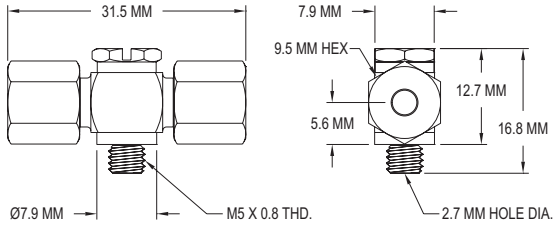
MATERIAL

Brass or 303 stainless steel body, nuts (MCB-18-NUT or MCB-18-303-NUT), and ferrules. 303 stainless steel stud (M5S-1000-303).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Fluorosilicone, Teflon®, TFE/P, and FFKM. See page 11.

NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "-P" (e.g. M5CBT-1018-P-303).



Suggested Tube OD	Part Number Brass Body & 303 SS Stud	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/8 (metal)	M5CBT-1018		TPSB-18
1/8 (metal or plastic)	M5CBT-1018-1	M5CBT-1018-1-303	TPSB-18 (brass) TPSS-18-1 (SS)

Fitting for 1/4" OD Tubing - M5 Thread, Elbow, Adjustable Position

DESCRIPTION

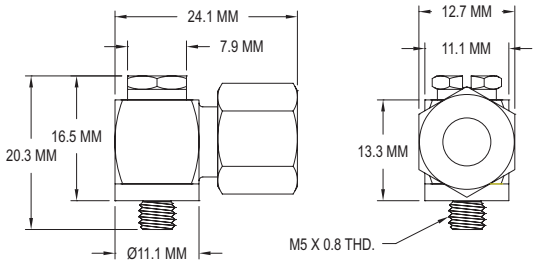
Miniature compression fitting with M5 thread for 1/4" OD plastic or metal tubing. Adjustable position.

MATERIAL

Brass, 303 or 316 stainless steel body, nut (MCB-14-NUT, MCB-14-303-NUT, or MCB-14-316-NUT), and ferrules. 303 or 316 stainless steel stud.

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Fluorosilicone, Teflon®, TFE/P, and FFKM. See page 11.



Suggested Tube OD	Part Number Brass Body & 303 SS Stud	Part Number 303 Stainless	Part Number 316 Stainless	Pre-Swage Tool (p.64)
1/4	M5CBL-14	M5CBL-14-303	M5CBL-14-316	TPSS-14

Fitting for 1/8" OD Tubing – M6 Thread, Elbow, Adjustable Position

DESCRIPTION

Miniature compression fitting with M6 thread for 1/8" OD plastic or metal tubing. Adjustable position.

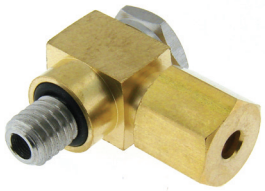
MATERIAL

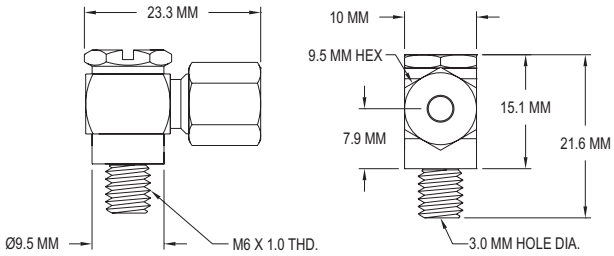
Brass or 303 stainless steel body, nut (MCB-18-NUT or MCB-18-303-NUT), and ferrules. 303 stainless steel stud.

SEALS

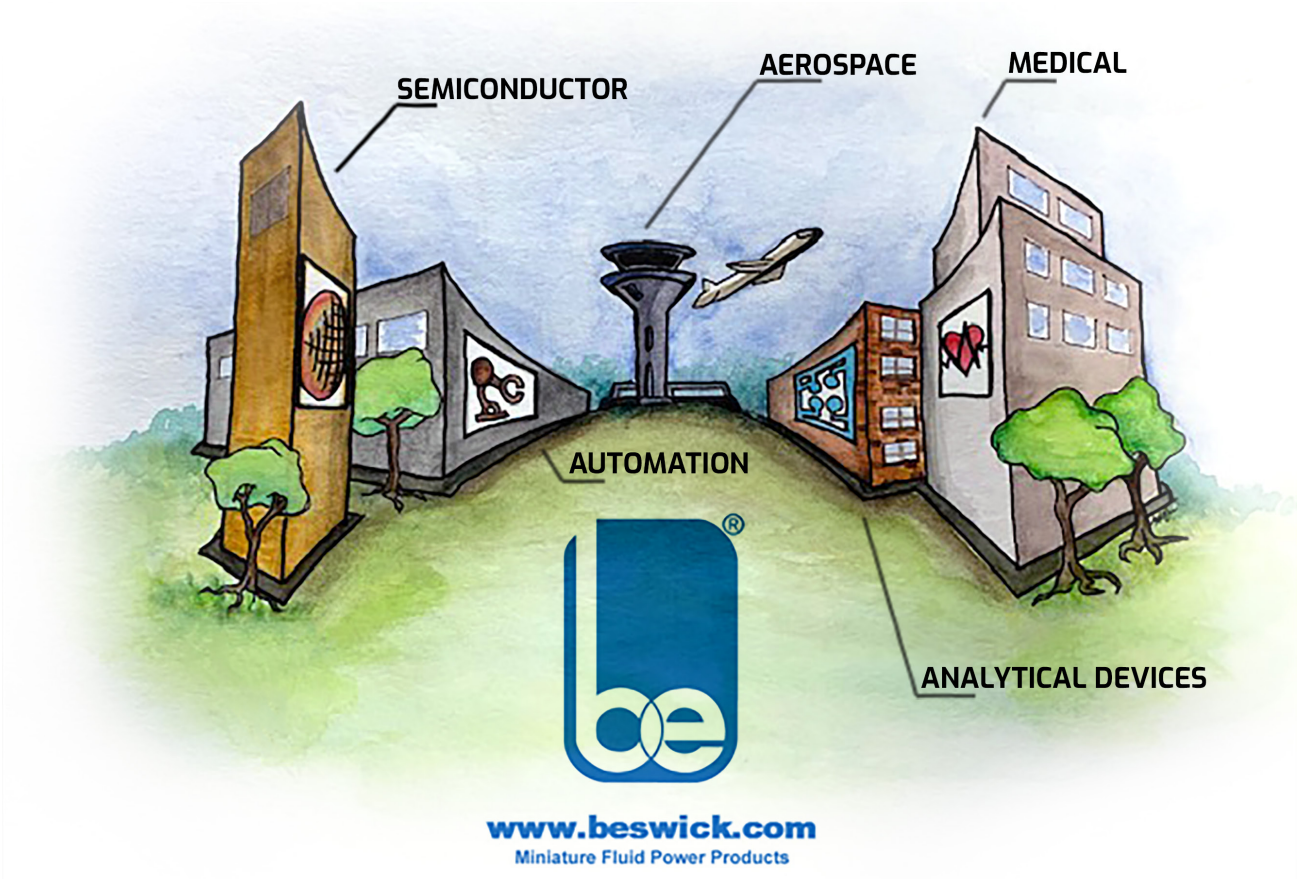
Two Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.

NOTE: Stainless steel configurations are compatible with optional 1/8" PEEK ferrules. To order, replace the "-1" portion of the part number with "-P" (e.g. M6CBL-1018-P-303).





Suggested Tube OD	Part Number Brass Body & 303 SS Stud	Part Number 303 Stainless	Pre-Swage Tool (p.64)
1/8 (metal)	M6CBL-1018		TPSB-18
1/8 (metal or plastic)	M6CBL-1018-1	M6CBL-1018-1-303	TPSB-18 (brass) TPSS-18-1 (SS)



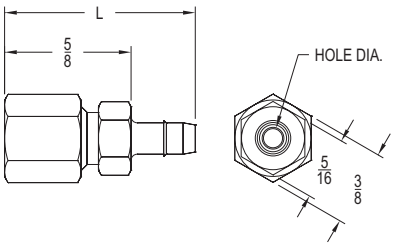
Fitting for 1/8" OD Tubing to Barb

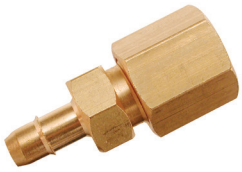
DESCRIPTION

Miniature compression fitting for 1/8" OD copper, stainless steel, nylon, or polyethylene tubing, with built-in hose barb.

MATERIAL

Brass body, nut (MCB-18-NUT), and ferrule.





Suggested Tube OD	Part Number Brass	Suggested Tube ID [1]	Hole Diam.	L	Pre-Swage Tool (p.64)
1/8 (metal)	MCB-1018-1004	1/4	5/64	1 3/32	TPSB-18
1/8 (metal or plastic)	MCB-1018-1-1004	1/4	5/64	1 3/32	TPSB-18
1/8 (metal)	MCB-1018-1008-1	.170 to 3/16	5/64	1 3/32	TPSB-18
1/8 (metal or plastic)	MCB-1018-1-1008-1	.170 to 3/16	5/64	1 3/32	TPSB-18
1/8 (metal)	MCB-1018-1008-2	.170 to 3/16	5/64	15/16	TPSB-18
1/8 (metal or plastic)	MCB-1018-1-1008-2	.170 to 3/16	5/64	15/16	TPSB-18
1/8 (metal)	MCB-1018-1332	1/8	5/64	15/16	TPSB-18
1/8 (metal or plastic)	MCB-1018-1-1332	1/8	5/64	15/16	TPSB-18
1/8 (metal)	MCB-1018-1132	3/32	1/16	27/32	TPSB-18
1/8 (metal or plastic)	MCB-1018-1-1132	3/32	1/16	27/32	TPSB-18
1/8 (metal)	MCB-1018-1016	5/64 (2mm)	3/64	27/32	TPSB-18
1/8 (metal or plastic)	MCB-1018-1-1016	5/64 (2mm)	3/64	27/32	TPSB-18
1/8 (metal)	MCB-1018-1012	1/16	3/64	27/32	TPSB-18
1/8 (metal or plastic)	MCB-1018-1-1012	1/16	3/64	27/32	TPSB-18

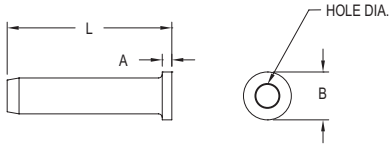
Tubing Inserts

DESCRIPTION

Beswick tubing inserts are designed to facilitate connection of soft tubing, such as polyurethane, to a compression fitting. The tubing insert prevents the tube wall from collapsing and ensures a reliable seal between the tube OD and ferrule.

MATERIAL

303 or 316 stainless steel.



Suggested Tube ID	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height A	Length L	Diam. B	Hole Diam.
3/16	CI-188-303		0.05	55/64	1/4	9/64
0.17	CI-170-303	CI-170-316	0.05	39/64	1/4	1/8
1/8	CI-125-303		0.05	39/64	1/4	5/64
1/16	CI-062-303	CI-062-316	0.025	27/64	1/8	1/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

COMPRESSION FITTING ACCESORIES

Replacement Ferrules for Compression Fittings

DESCRIPTION
Replacement ferrules for Beswick compression fittings.

MATERIAL
Brass, 303, or 316 stainless steel.

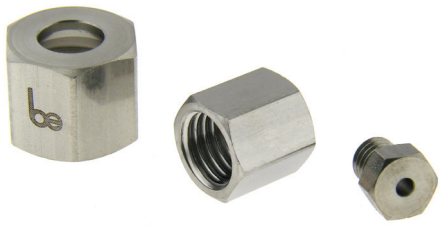
PART DESIGNATION: **MCB-AAA-BBB-CCC-D**
Replace each underlined letter with a code.
AAA, and CCC must be filled in. BBB, and D are optional.

Tube OD	Code	Description
AAA	32	1/32"
	16	1/16"
	18	1/8"
	182	1/8" (Use with M3CB-1018-2 Series Fittings Only)
	14	1/4"
	4MM	4MM
	6MM	6MM
Ferrule Material		
BBB		Brass (No Designation)
	303	303 Stainless Steel
	316	316 Stainless Steel
	PK	PEEK[1]
Ferrule Type		
CCC	FSY	Symmetrical 1 Piece Ferrule[2]
	FA	Asymmetrical 1 Piece Ferrule[3]
	FF	Front Ferrule[4]
	FR	Rear Ferrule[4]
Special Options		
D	I	Instrument Cleaned

1 PEEK ferrules are currently stocked in 1/16" and 1/8" (Tube OD Code 18) sizes only. Other sizes may have extended lead time & minimum order requirement. 1/8" PEEK ferrules are compatible with Stainless steel compression fitting bodies only, and cannot be used in M3CB-1018-2 series fittings.
2 For use with metal tubing. This type is compatible with brass, 1/8" OD compression fittings (Tube OD Code 18) only.
3 For use with stiff plastic or metal tubing. This type is compatible with 1/8" (Tube OD Code 18), 1/4", and 4mm brass compression fittings, as well as all PEEK ferrules. PEEK asymmetrical ferrules can also be used with Thermocouples, glass or delicate/thin walled tubing.
4 Use with all 303 and 316 stainless steel ferrules, as well as 1/32" and 1/16" brass ferrules.

Please visit our website or contact a Beswick applications engineer for additional compatibility information prior to ordering.

Replacement Screws/Nuts for Compression Fittings



DESCRIPTION

Replacement screws/nuts for Beswick compression fittings.

MATERIAL

Brass, Electroless Nickel Plated Brass, Nylon, 303, or 316 stainless steel.

Part Number Brass	Part Number ENP Brass	Part Number Nylon	Part Number 303 Stainless	Part Number 316 Stainless	Description
			M3CB5H-32-303-SCREW		Screw for M3 threaded 1/32" fittings with 5mm hex
			M3CB6H-32-303-SCREW		Screw for M3 threaded 1/32" fittings with 6mm hex
			MCB-32-303-SCREW		Screw for 10-32 threaded 1/32" fittings
			M3CB5H-16-303-SCREW		Screw for M3 threaded 1/16" fittings with 5mm hex
	M3CB-16-ENP-SCREW		M3CB-16-303-SCREW	M3CB-16-316-SCREW	Screw for all other M3, M4 & M5 threaded 1/16" fittings
	MCB-16-ENP-SCREW		MCB-16-303-SCREW	MCB-16-316-SCREW	Screw for 10-32 threaded 1/16" fittings
			M3CB-182-303-SCREW	M3CB-182-316-SCREW	Screw for M3CB-1018-2 series fittings
		MCN-1018-NUT[1]			One-piece nylon nut and ferrule, for use with 1/8" MCN series fittings
MCB-18-NUT	MCB-18-ENP-NUT		MCB-18-303-NUT	MCB-18-316-NUT	Nut for all other 1/8" fittings
			MCB-4T-303-NUT		Nut for MCB-4T series redundant seal fittings
MCB-14-NUT			MCB-14-303-NUT	MCB-14-316-NUT	Nut for all other 1/4" fittings
MCB-4MM-NUT			MCB-4MM-303-NUT		Nut for 4mm fittings
			MCB-6MM-303-NUT		Nut for 6mm fittings

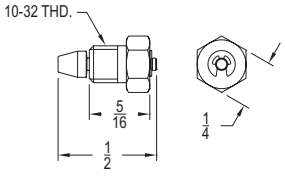
Caps/Plugs

DESCRIPTION

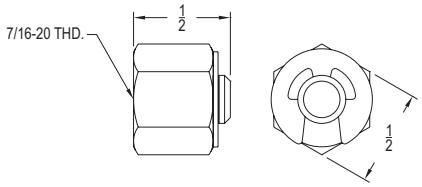
The cap can be used to seal the end of an 1/16", 1/8" or 1/4" compression fitting body.
The plug can be used to seal the end of an 1/8" compression fitting nut.

MATERIAL

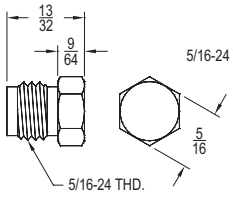
Brass, 303, or 316 stainless steel. MCBPB has a 15-7 stainless steel retaining ring.



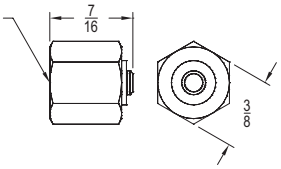
Cap: MCBPB-16



Cap: MCBPB-14



Plug: MCBPN-18



Cap: MCBPB-18

Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Description
	MCBPB-16-303		Cap (1/16")
MCBPN-18	MCBPN-18-303	MCBPN-18-316	Plug (1/8")
MCBPB-18	MCBPB-18-303	MCBPB-18-316	Cap (1/8" or 4mm)
	MCBPB-14-303		Cap (1/4")

[1] MCN series fitting has a brass body, with a one piece Nylon nut and ferrule.

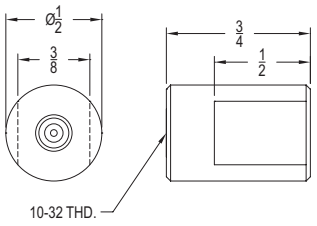
Pre-Swage Tool

DESCRIPTION

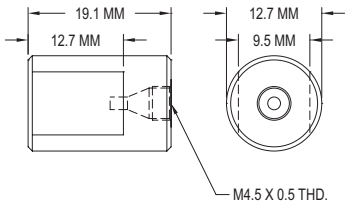
The pre-swage tool is designed to swage the ferrule(s) onto the tube prior to installation of the tube/nut/ferrule assembly into the compression fitting body. Pre-swaging is especially helpful when the tube connection must be made in a tight space. In limited space applications it may be difficult to tighten the nut and ferrule assembly. Pre-swaging significantly reduces the effort needed to make these connections. Pre-swaging is also recommended to prevent accidental overtightening of miniature threads and to increase efficiency during production.

MATERIAL

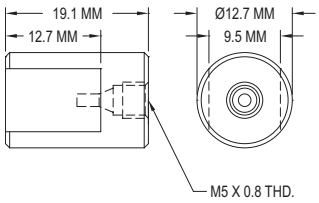
A6 tool steel.



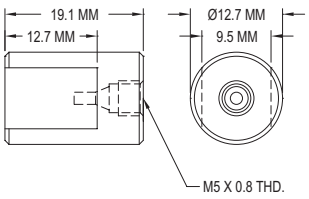
TPSS-32



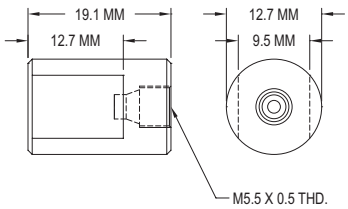
TPSS-16-M4.5



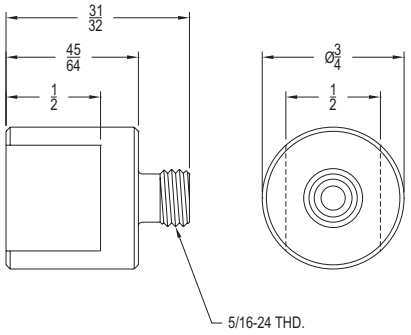
TPSL-16-M5 & TPSS-16-M5



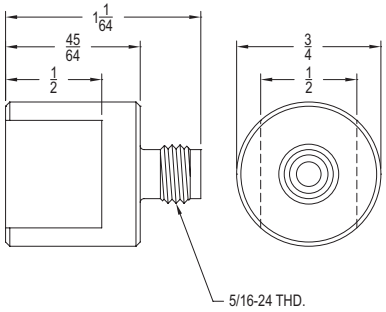
TPSL-16 & TPSS-16



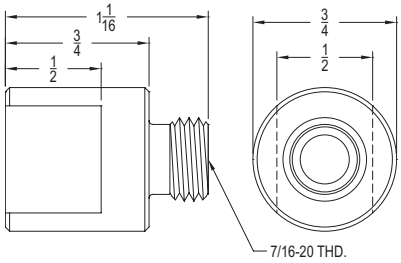
TPSS-18-M5.5



TPSS-18-1 & TPSS-4MM



TPSB-18



TPSS-14

Part Number	For Use With
TPSS-32	All 1/32" fittings except for MCB-3T-303
TPSS-16-M4.5	M3CB5H, M3CBL, and M3CBT series 1/16" fittings
TPSL-16-M5	S5MCBL and S5MCBT series 1/16" fittings
TPSS-16-M5	All other M3, M4, and M5 1/16" fittings
TPSL-16	SMCBL, SMCBT, and MCBT-16-10 series 1/16" fittings
TPSS-16	All other 10-32 threaded 1/16" fittings
TPSB-18	1/8" brass and ENP brass fittings
TPSS-18-M5.5	M3 threaded 1/8" stainless steel fittings
TPSS-18-1	All other 1/8" stainless steel fittings
TPSS-14	All 1/4" fittings (brass & SS) except for MCB-4T-303 series
TPSS-4MM	All 4 mm fittings

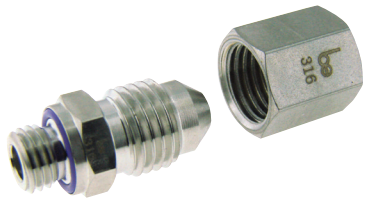
Note: Pre-swage tools are intended for use with metallic ferrules only

NEW 37 Degree Flare Fittings for 1/8" or 1/4" OD Tubing

DESCRIPTION

37 degree straight male flare fittings. Designed for use with stainless steel, copper, and aluminum tubing.

Maximum Pressure Rating: 3,000 psig. Always ensure that the temperature and pressure rating for your specificied tubing is not exceeded.

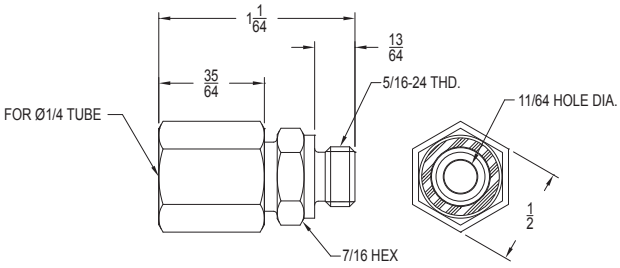


MATERIAL

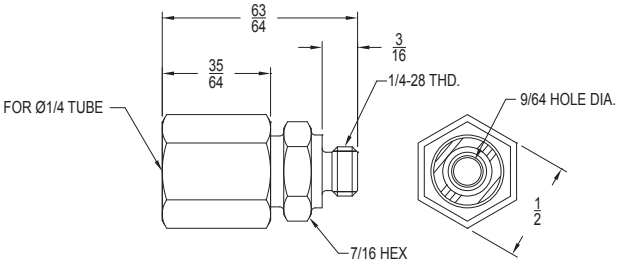
316 Stainless steel.

SEALS

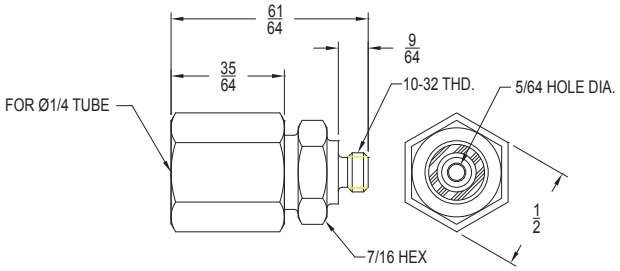
One Buna-N O-Ring. Optional Materials EPDM and Fluorocarbon. Additional optional seal materials may be available for 1/4-28 and 10-32 threaded models. See Page 11.



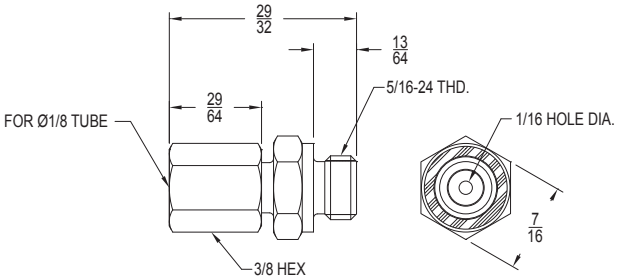
MFM-14-516



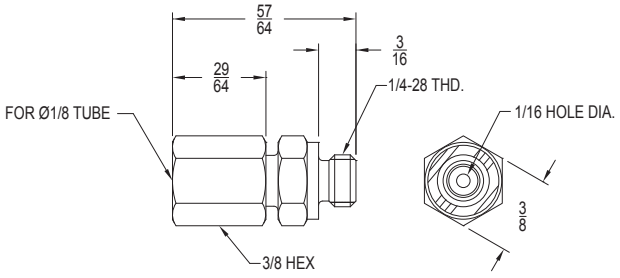
MFM-14-14



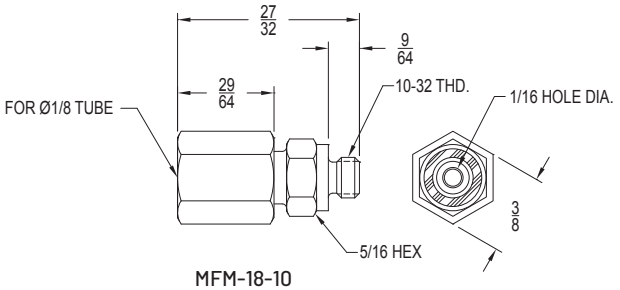
MFM-14-10



MFM-18-516



MFM-18-14



MFM-18-10

Suggested Tube OD	Part Number 316 Stainless	Thread Size	Installed Height	Thru Hole
1/8	MFM-18-10-6	10-32	45/64	1/16
1/8	MFM-18-14-6	1/4-28	45/64	1/16
1/8	MFM-18-516-6	5/16-24	45/64	1/16
1/4	MFM-14-10-6	10-32	13/16	5/64
1/4	MFM-14-14-6	1/4-28	13/16	9/64
1/4	MFM-14-516-6	5/16-24	13/16	11/64

THREADED & ADAPTER FITTINGS

Fitting - 10-32 External to 10-32 Internal Extension

DESCRIPTION

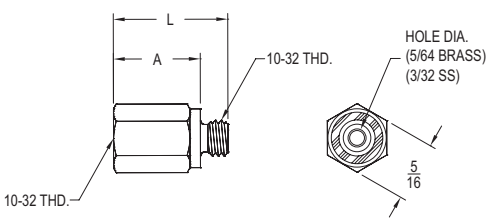
5/16" Hex extension fitting with 10-32 external to 10-32 internal threaded connections. Models are available with shouldered lengths ranging from 1/4" to 2".

MATERIAL

Brass, 303, or 316 stainless steel.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height A	L
MEB-1010-0	MEB-1010-0-303		1/4	13/32
MEB-1010-1	MEB-1010-1-303	MEB-1010-1-316	9/32	7/16
MEB-1010-2	MEB-1010-2-303		3/8	17/32
MEB-1010-3	MEB-1010-3-303	MEB-1010-3-316	1/2	21/32
MEB-1010-4	MEB-1010-4-303		5/8	25/32
MEB-1010-5	MEB-1010-5-303	MEB-1010-5-316	3/4	29/32
MEB-1010-6	MEB-1010-6-303		7/8	1 1/32
MEB-1010-7	MEB-1010-7-303		1	1 5/32
MEB-1010-8			1 1/8	1 9/32
MEB-1010-9			1 1/4	1 13/32
MEB-1010-10			1 3/8	1 17/32
MEB-1010-11	MEB-1010-11-303		1 1/2	1 21/32
MEB-1010-15			2	2 5/32

Fitting – 10-32 Threads, Elbow, Fixed Position

DESCRIPTION

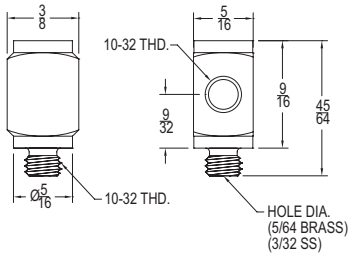
Fixed position elbow with 10-32 threads.

MATERIAL

Brass or 303 stainless steel.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



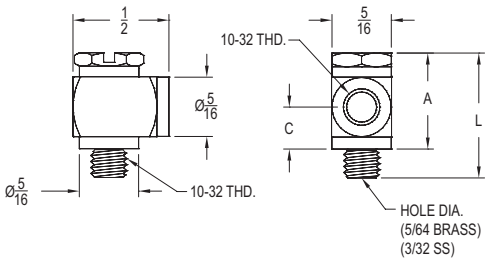
Part Number Brass	Part Number 303 Stainless
ML-1010	ML-1010-303

Fitting – 10-32 Threads, Elbow, Adjustable Position

DESCRIPTION
Adjustable position elbow with 10-32 threads.

MATERIAL
Brass, 303, or 316 stainless steel body and stud (MSB-1000, MS-1000-303, or MS-1000-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, and Fluorosilicone. See page 11.



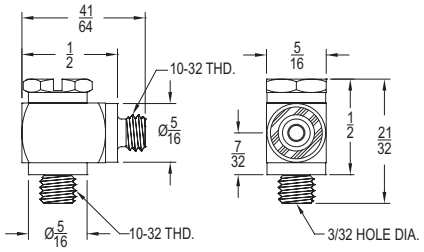
Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Stud Material	Installed Height A	Outlet Height C	L
MLSB-1010 [1]			brass [1]	1/2	7/32	21/32
MLS-1010	MLS-1010-303	MLS-1010-316	stainless steel	1/2	7/32	21/32
MLS-1010-TALL			stainless steel	19/32	5/16	3/4

Fitting – 10-32 External Threads, Elbow, Adjustable Position

DESCRIPTION
Adjustable position elbow fitting with 10-32 external threads.

MATERIAL
303 or 316 stainless steel body and 303 or 316 stainless steel stud (MS-1000-303 or MS-1000-316).

SEALS
Three Buna-N O-rings, two OR-516-40-B, and one OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



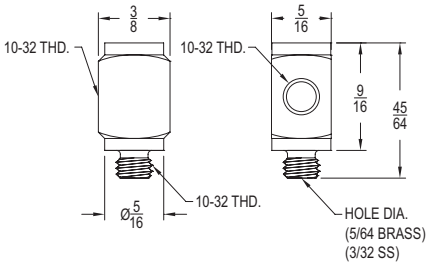
Part Number 303 Stainless	Part Number 316 Stainless
MLSN-1010-303	MLSN-1010-316

Fitting – 10-32 External Thread to 10-32 Internal Threads, Tee, Fixed Position

DESCRIPTION
Fixed position tee with 10-32 threads.

MATERIAL
Brass, 303, or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
MT-1010	MT-1010-303	MT-1010-316

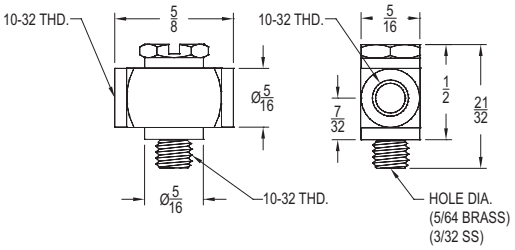
[1] Brass stud does not have a screwdriver slot.

Fitting – 10-32 External Thread to 10-32 Internal Threads, Tee, Adjustable Position

DESCRIPTION
Adjustable position tee with 10-32 threads.

MATERIAL
Brass, 303, or 316 stainless steel body and stud (MSB-1000, MS-1000-303, or MS-1000-316).

SEALS
Two Buna-N O-rings, OR-516-40-B, and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



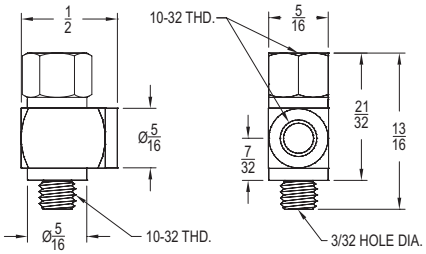
Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Stud Material
MTSB-1010 [1]			brass [1]
MTS-1010	MTS-1010-303	MTS-1010-316	stainless steel

Fitting – 10-32 External Thread to 10-32 Internal Threads, Street Tee, Adjustable Position

DESCRIPTION
Adjustable position street tee with 10-32 threads and manifold stud.

MATERIAL
Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel manifold stud (MS-1010-303 or MS-1010-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.

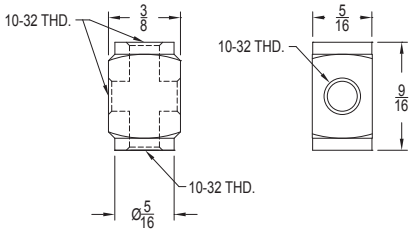


Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud
MTM-1010	MTM-1010-303	MTM-1010-316

Fitting – 10-32 Internal Threads, Cross, Fixed Position

DESCRIPTION
Fixed position cross with 10-32 internal threads.

MATERIAL
Brass, 303, or 316 stainless steel.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
MX-1010	MX-1010-303	MX-1010-316

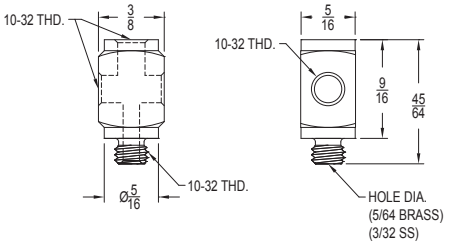
[1] Brass stud does not have a screwdriver slot.

Fitting – 10-32 External Thread to 10-32 Internal Threads, Cross, Fixed Position

DESCRIPTION
Fixed position cross from external 10-32 thread to internal 10-32 threads.

MATERIAL
Brass or 303 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



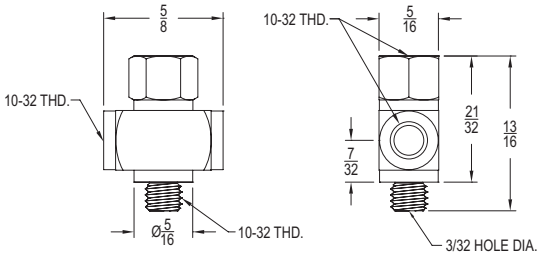
Part Number Brass	Part Number 303 Stainless
MC-1010	MC-1010-303

Fitting – 10-32 External Thread to 10-32 Internal Threads, Cross, Adjustable Position

DESCRIPTION
Adjustable position cross with 10-32 threads and manifold stud.

MATERIAL
Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel manifold stud (MS-1010-303 or MS-1010-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



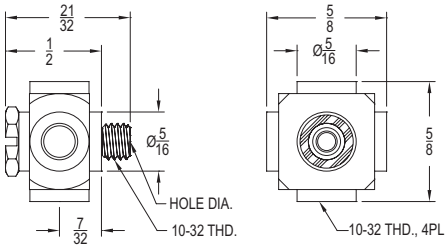
Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud
MCM-1010	MCM-1010-303	MCM-1010-316

5 Port Fitting – 10-32 Threads, Adjustable Position

DESCRIPTION
Adjustable position 5-port fitting with 10-32 threads used as a manifold or valve connection.

MATERIAL
Brass or 303 stainless steel body with brass or 303 stainless steel stud (MSB-1000 or MS-1000-303).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Part Number Brass	Part Number 303 Stainless	Stud Material	Hole Diam.
MKSB-1010 [1]		brass [1]	5/64
MKS-1010	MKS-1010-303	stainless steel	3/32

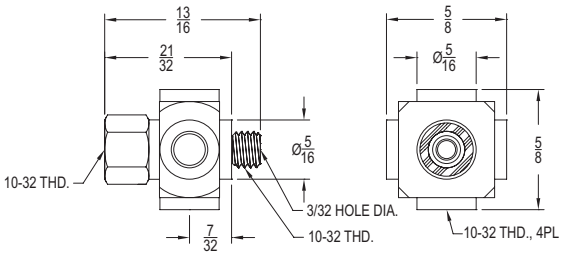
[1] Brass stud does not have a screwdriver slot.

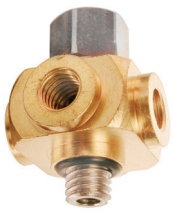
6 Port Fitting – 10-32 Threads, Adjustable Position

DESCRIPTION
Adjustable position 6-port fitting with 10-32 threads and manifold stud.

MATERIAL
Brass or 303 stainless steel body with 303 stainless steel manifold stud (MS-1010-303).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR- 516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.





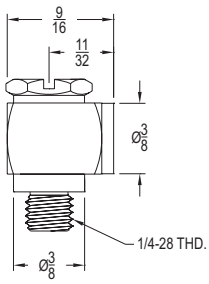
Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless
MKM-1010	MKM-1010-303

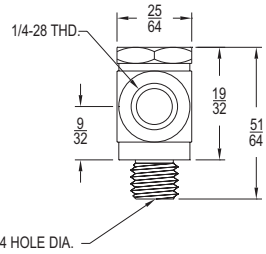
Fitting - 1/4-28 Threads, Elbow, Adjustable Position

DESCRIPTION
Adjustable Position elbow with ¼-28 threads.

MATERIAL
Brass or 303 stainless steel body with 303 stainless steel stud.

SEALS
Two Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.





Part Number Brass	Part Number 303 Stainless
MLS-1414	MLS-1414-303

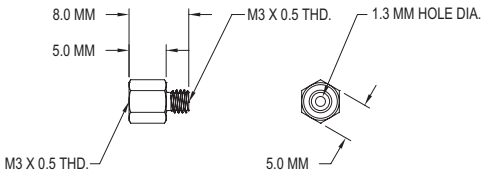
Fitting - M3 External to M3 Internal Extension

DESCRIPTION
M3 external to M3 internal threaded extension fitting.

MATERIAL
303 stainless steel.

SEALS
One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.

NOTE: See also CC-M3M3-XXX-303 orifice fitting on page 101.



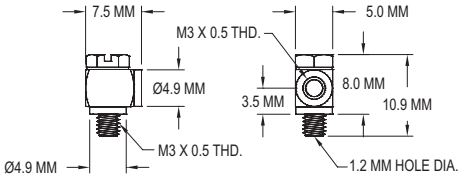
Part Number 303 Stainless
M3EB-303

Fitting – M3 Threads, Elbow, Adjustable Position

DESCRIPTION
Adjustable position elbow with M3 threads.

MATERIAL
Brass, 303 or 316 stainless steel body and stud (M3S-1001, M3S-1001-303, or M3S-1001-316).

SEALS
Two Buna-N O-rings, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



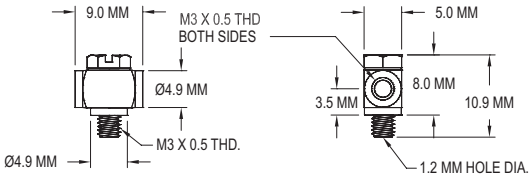
Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
M3LS-M3I	M3LS-M3I-303	M3LS-M3I-316

Fitting – M3 Threads, Tee, Adjustable Position

DESCRIPTION
Adjustable position tee with M3 threads.

MATERIAL
Brass or 303 stainless steel body and stud (M3S-1001 or M3S-1001-303).

SEALS
Two Buna-N O-rings, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



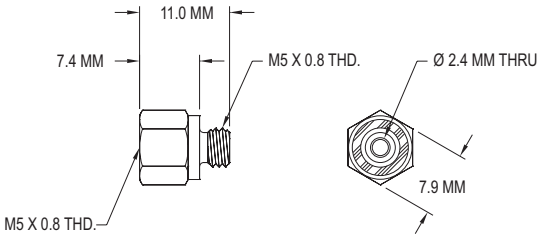
Part Number Brass	Part Number 303 Stainless
M3TS-M3I	M3TS-M3I-303

NEW Fitting - M5 External to M5 Internal Extension

DESCRIPTION
M5 external to M5 internal threaded extension fitting.

MATERIAL
316 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



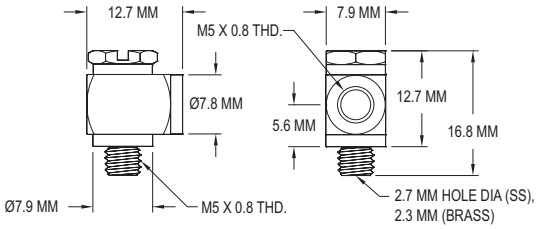
Part Number 316 Stainless
M5EB-M5-1-316

Fitting – M5 Threads, Elbow, Adjustable Position

DESCRIPTION
Adjustable position elbow with M5 threads.

MATERIAL
Brass, 303, or 316 stainless steel body with brass, 303, or 316 stainless steel stud (M5SB-1000, M5S-1000-303, or M5S-1000-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



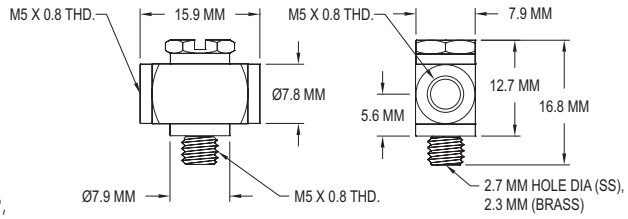
Part Number Brass Body & Brass Stud[1]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud
M5LSB-M5	M5LS-M5	M5LS-M5-303	M5LS-M5-316

Fitting – M5 Threads, Tee, Adjustable Position

DESCRIPTION
Adjustable position tee with M5 threads.

MATERIAL
Brass, 303, or 316 stainless steel body with brass, 303, or 316 stainless steel stud (M5SB-1000, M5S-1000-303, or M5S-1000-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



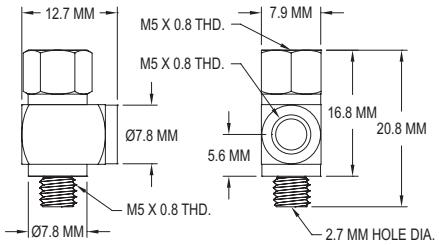
Part Number Brass Body & Brass Stud[1]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud
M5TSB-M5M5	M5TS-M5M5	M5TS-M5M5-303	M5TS-M5M5-316

Fitting – M5 Threads, Street Tee, Adjustable Position

DESCRIPTION
Adjustable position tee with M5 threads and manifold stud.

MATERIAL
Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel manifold stud (M5S-M5-303 or M5S-M5-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud
M5TM-M5	M5TM-M5-303	M5TM-M5-316

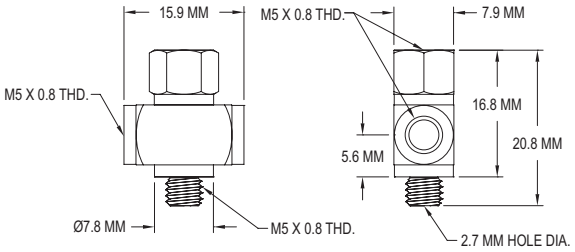
[1] Brass stud does not have a screwdriver slot.

Fitting – M5 External Thread to M5 Internal Threads, Cross, Adjustable Position

DESCRIPTION
Adjustable position cross with M5 threads and manifold stud.

MATERIAL
Brass, 303, or 316 stainless steel body with 303 or 316 stainless steel manifold stud (M5S-M5-303 or M5S-M5-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM.
See page 11.



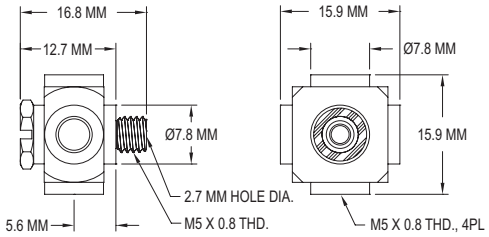
Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless Body & 303 Stainless Stud	Part Number 316 Stainless Body & 316 Stainless Stud
M5CM-M5M5	M5CM-M5M5-303	M5CM-M5M5-316

5 Port Fitting – M5 Threads, Adjustable Position

DESCRIPTION
Adjustable position 5-port fitting with M5 threads used as a manifold or valve connection.

MATERIAL
316 stainless steel body with 316 stainless steel stud (M5S-1000-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



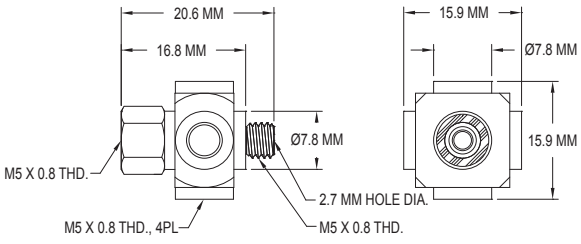
Part Number 316 Stainless Body & 316 Stainless Stud
M5KS-M5M5-316

6 Port Fitting – M5 Threads, Adjustable Position

DESCRIPTION
Adjustable position 6-port fitting with M5 threads and manifold stud.

MATERIAL
316 stainless steel body with 316 stainless steel manifold stud (M5S-M5-316).

SEALS
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Part Number 316 Stainless Body & 316 Stainless Stud
M5KM-M5M5-316

External Nipple Fitting - 10-32 Thread

DESCRIPTION

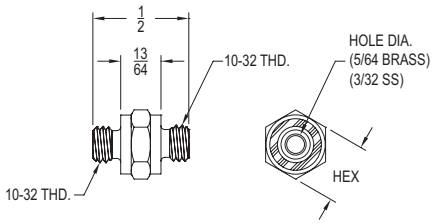
Nipple fitting with 10-32 external threads. Used to connect two components with 10-32 internal threads that do not require orientation.

MATERIAL

Brass, 303, or 316 stainless steel.

SEALS

For 5/16 hex models: Two Buna-N O-rings, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, TFE/P, FFKM, Fluorosilicone and Chloroprene. For ¼ hex models: Two Buna-N O-rings, OR-14-B. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, and FFKM. See page 11.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hex
MN-1010	MN-1010-303	MN-1010-316	5/16
MN-1010-1/4			1/4

External Universal Nipple Fitting -10-32 Thread

DESCRIPTION

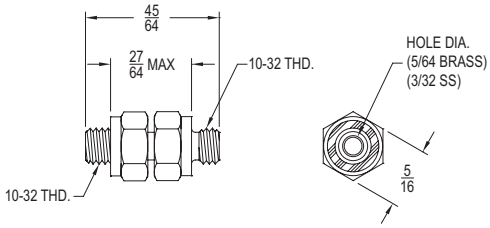
Universal nipple fitting with 10-32 external threads. Used to connect two components with 10-32 internal threads and permits adjustment of angular relationship of the connected components.

MATERIAL

Brass, 303, or 316 stainless steel.

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-70-B. Optional materials: EPDM, Fluorocarbon, Silicone, TFE/P, and Chloroprene. See page 11.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
MUN-1010	MUN-1010-303	MUN-1010-316

NEW External Nipple Fitting - 1/4-28 Thread

DESCRIPTION

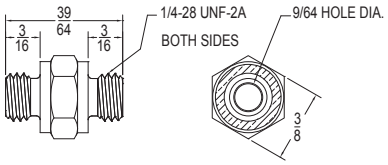
Nipple fitting with 1/4-28 external threads. Used to connect two components with 1/4-28 internal threads that do not require orientation.

MATERIAL

303 stainless steel.

SEALS

Two Buna-N O-rings, OR-1428-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, and Chloroprene. See page 11.



Part Number 303 Stainless
MN-1414-303

External Nipple Fitting - M3 Thread

DESCRIPTION

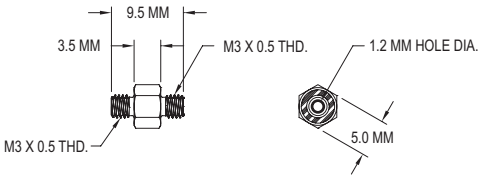
Nipple fitting with M3 external threads. Used to connect two components with M3 internal threads that do not require orientation.

MATERIAL

303 stainless steel.

SEALS

Two Buna-N O-rings, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



Part Number 303 Stainless
MN-M3M3-303

External Universal Nipple Fitting - M3 Thread

DESCRIPTION

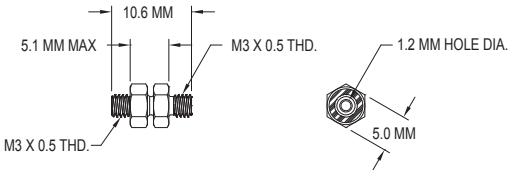
Nipple fitting with M3 external threads. Used to connect two components with M3 internal threads and permits adjustment of angular relationship of the connected components.

MATERIAL

303 stainless steel.

SEALS

Two Buna-N O-rings, OR-M3-B and OR-M3-40-B. Optional materials: EPDM, Fluorocarbon and Silicone. See page 11.



Part Number 303 Stainless
M3UN-303

External Nipple Adapter - M3 to M5 Thread

DESCRIPTION

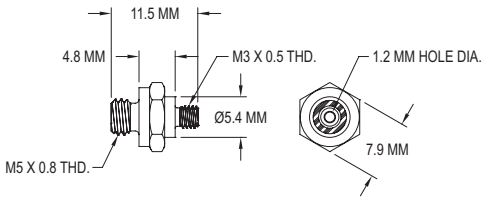
Nipple fitting with M3 and M5 external threads. Used to connect two components with M5 internal and M3 internal threads that do not require orientation.

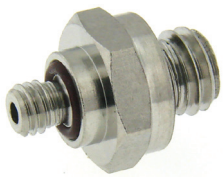
MATERIAL

303 stainless steel.

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-M3-B. Optional materials: EPDM, Fluorocarbon, Fluorosilicone and Silicone. See page 11.





Part Number 303 Stainless
MN-M3M5-303

External Nipple Fitting - M5 Thread

DESCRIPTION

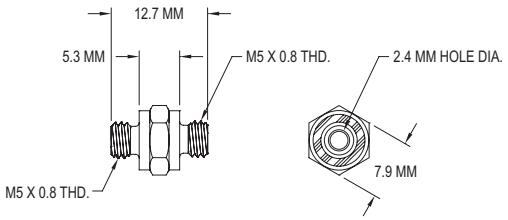
Nipple fitting with M5 external threads. Used to connect two components with M5 internal threads that do not require orientation.

MATERIAL

316 stainless steel.

SEALS

Two Buna-N O-rings, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Part Number 316 Stainless
MN-M5M5-316

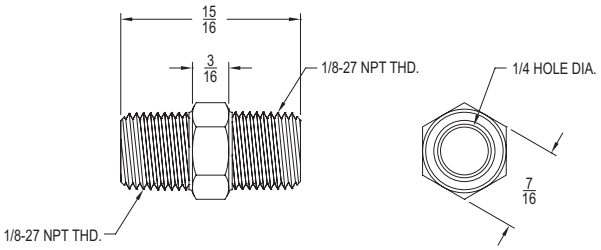
External Nipple Fitting - 1/8" NPT Thread

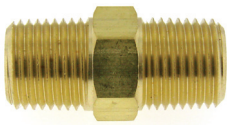
DESCRIPTION

Nipple fitting with 1/8" NPT external threads. Used to connect two components with 1/8" NPT internal threads.

MATERIAL

Brass.





Part Number Brass
MPA-18M18M

Internal Adapter Couplings - Metric and Imperial Threads

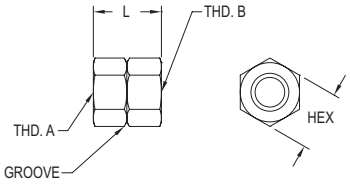
DESCRIPTION

Internal threaded coupling with M3, M5, 10-32, 1/4-28, or 5/16-24 threads.

MATERIAL

Brass, 303, or 316 stainless steel.

NOTE: Groove indicates M5 port. No groove on MF-51624-10, MF-1414, MF-1010, MF-M3M3, or MF-10M3-303.

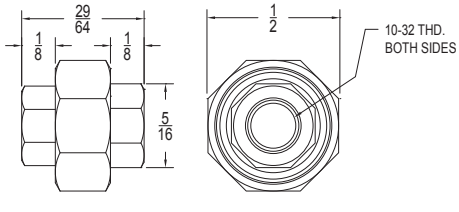


Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	THD A	THD B	Hex	L
	MF-51624-10-303	MF-51624-10-316	5/16-24	10-32	7/16	1/2
MF-1414	MF-1414-303		1/4-28	1/4-28	3/8	3/8
MF-1010	MF-1010-303	MF-1010-316	10-32	10-32	5/16	23/64
MF-10M5			10-32	M5 x 0.8	5/16	23/64
	MF-10M3-303		10-32	M3 x 0.5	5/16	23/64
MF-M5M5	MF-M5M5-303		M5 x 0.8	M5 x 0.8	5/16	23/64
MF-M3M3	MF-M3M3-303		M3 x 0.5	M3 x 0.5	5 mm	9/32

NEW Internal Universal Adapter Coupling - 10-32 Thread

DESCRIPTION

Universal adapter fitting with 10-32 female threads. Used to connect two components with 10-32 male threads and permits adjustment of angular relationship of the connected components. The MU adapter can also be used in place of a quick disconnect, in applications where one needs to occasionally break a tubing connection, but does not require a shut-off feature. Includes internal O-ring seal to ensure a leak tight connection.



MATERIAL

Brass or 303 stainless steel.

SEALS

One Buna-N O-ring, OR-51624-B. Optional Materials: EPDM and Fluorocarbon. See page 11.

Part Number Brass	Part Number 303 Stainless
MU-1010	MU-1010-303

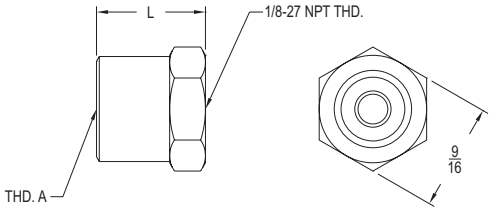
Internal Adapter Coupling - 1/8" NPT to 10-32 or M6 Thread

DESCRIPTION

1/8" NPT internal to 10-32 or M6 internal threaded straight adapter.

MATERIAL

Brass or 303 stainless steel.



Part Number Brass	Part Number 303 Stainless	THD A	L
MPFA-1810	MPFA-1810-303	10-32	37/64
	MPFA-18M6-303	M6 X 1	41/64

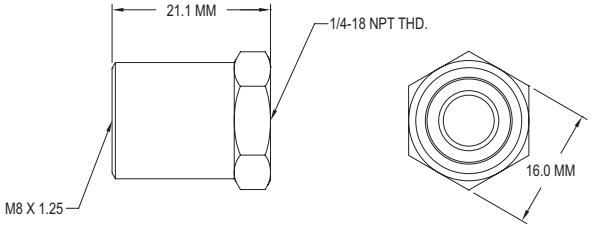
Internal Adapter Coupling - 1/4" NPT to M8 Thread

DESCRIPTION

1/4" NPT internal to M8 internal threaded straight adapter.

MATERIAL

303 stainless steel.



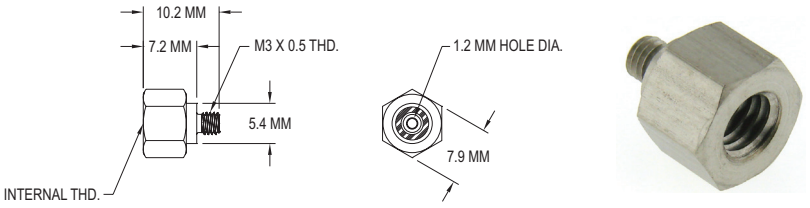
Part Number 303 Stainless
MPFA-14M8-303

Adapter - M3 External to 10-32 or M5 Internal Thread

DESCRIPTION
M3 external to 10-32 or M5 internal threaded straight adapter.

MATERIAL
303 or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



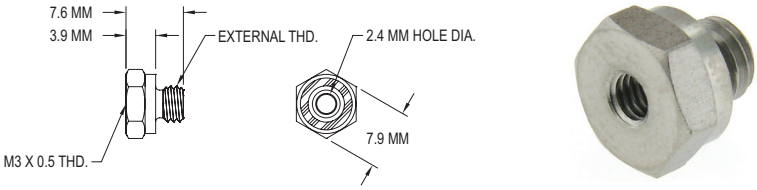
Part Number 303 Stainless	Part Number 316 Stainless	Internal Thread
MFA-M310-303	MFA-M310-316	10-32
MFA-M3M5-303		M5

Adapter - 10-32 or M5 External to M3 Internal Thread

DESCRIPTION
10-32 or M5 external to M3 internal threaded straight adapter.

MATERIAL
303 or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone and Chloroprene. See Page 11.



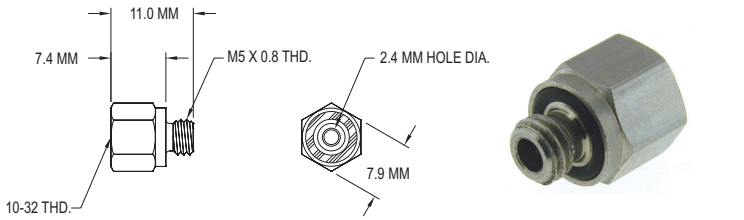
Part Number 303 Stainless	Part Number 316 Stainless	External Thread
MFA-10M3-303		10-32
MFA-M5M3-303	MFA-M5M3-316	M5

Adapter - M5 External to 10-32 Internal Thread

DESCRIPTION
M5 external to 10-32 internal threaded straight adapter.

MATERIAL
303 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



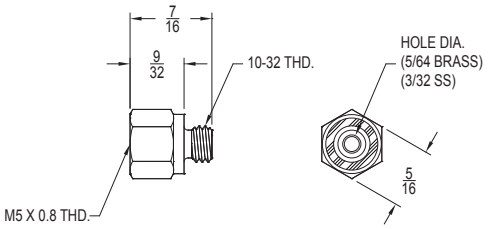
Part Number 303 Stainless
MFA-M510-303

Adapter - 10-32 External to M5 Internal Thread

DESCRIPTION
10-32 external to M5 internal threaded straight adapter.

MATERIAL
Brass, 303, or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



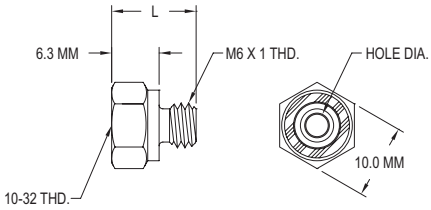
Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
MEB-10M5-1	MEB-10M5-1-303	MEB-10M5-1-316

Adapter - M6 External to 10-32 Internal Thread

DESCRIPTION
M6 external to 10-32 internal threaded straight adapter.

MATERIAL
Brass or 303 stainless steel.

SEALS
One Buna-N O-ring, OR-1428-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, and Chloroprene. See page 11.



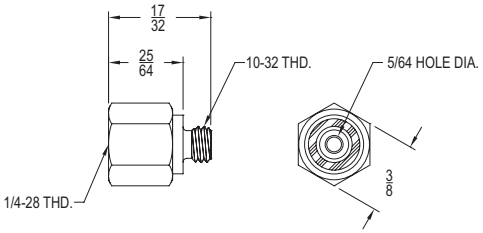
Part Number Brass	Part Number 303 Stainless	Hole Diam.	L
MFA-M610	MFA-M610-303	3.0 mm	11.3 mm
MFA-M610-032		0.8 mm	12.7 mm

Adapter - 10-32 External to 1/4-28 Internal Thread

DESCRIPTION
10-32 external to 1/4-28 internal threaded straight adapter.

MATERIAL
Brass.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



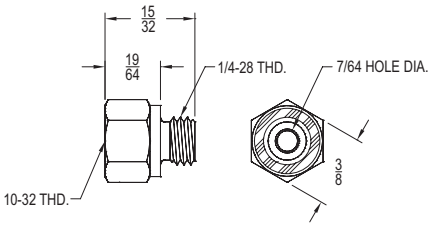
Part Number Brass
MFA-10-1428

Adapter - 1/4-28 External to 10-32 Internal Thread

DESCRIPTION
1/4-28 external to 10-32 internal threaded straight adapter.

MATERIAL
Brass, 303, or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-1428-B. Optional materials: EPDM,Fluorocarbon, Silicone, Teflon®, and Chloroprene. See page 11.



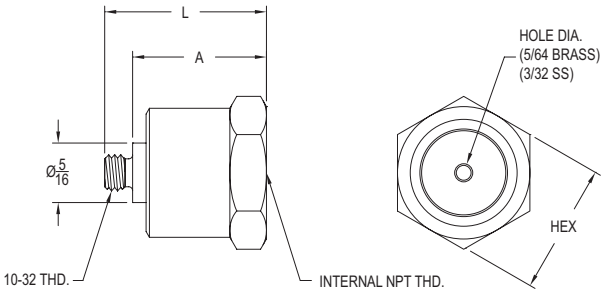
Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
MFA-1428-10	MFA-1428-10-303	MFA-1428-10-316

Adapter - 10-32 External to Internal Pipe Thread

DESCRIPTION
10-32 external to 1/4" or 1/8" NPT internal threaded straight adapter.

MATERIAL
Brass, 303, or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

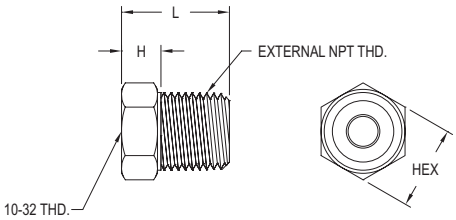


Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Internal Thread	A	Hex	L
MPFAE-1014	MPFAE-1014-303	MPFAE-1014-316	1/4 -18 NPT	11/16	11/16	27/32
MPFAE-1018	MPFAE-1018-303	MPFAE-1018-316	1/8 -27 NPT	9/16	9/16	23/32

Adapter - External Pipe Thread to 10-32 Internal Thread

DESCRIPTION
1/4", 1/8", or 1/16" NPT external to 10-32 internal threaded straight adapter fitting.

MATERIAL
Brass, 303, or 316 stainless steel.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	External Thread	H	Hex	L
MPA-1410	MPA-1410-303	MPA-1410-316	1/4 - 18 NPT	3/16	9/16	43/64
MPA-1810	MPA-1810-303	MPA-1810-316	1/8 - 27 NPT	3/16	7/16	9/16
MPA-1610	MPA-1610-303	MPA-1610-316	1/16 - 27 NPT	5/32	5/16	15/32

Adapter - 10-32 External to M5 Internal Threaded Elbow, Adjustable Position

DESCRIPTION

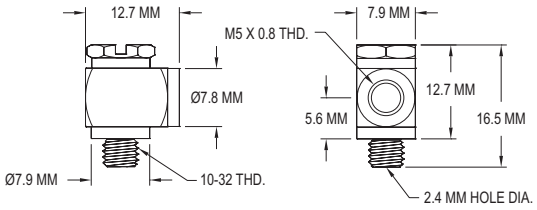
Adjustable position elbow with 10-32 external to M5 internal thread.

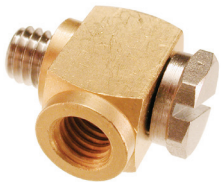
MATERIAL

Brass, 303, or 316 stainless steel body and stud (MSB-1000, MS-1000-303, or MS-1000-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.





Part Number Brass Body & Brass Stud[1]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless	Part Number 316 Stainless
MLSB-10M5	MLS-10M5	MLS-10M5-303	MLS-10M5-316

Adapter - M5 External to 10-32 Internal Threaded Elbow, Adjustable Position

DESCRIPTION

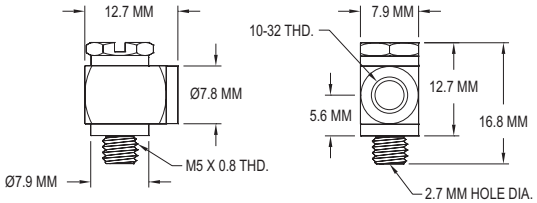
Adjustable position elbow with M5 external to 10-32 internal thread.

MATERIAL

Brass, 303 or 316 stainless steel body and stud (M5SB-1000, M5S-1000-303, or M5S-1000-316).

SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, Fluorosilicone and FFKM. See page 11.



Part Number Brass Body & Brass Stud[1]	Part Number Brass Body & 303 Stainless Stud	Part Number 303 Stainless	Part Number 316 Stainless
M5LSB-10	M5LS-10	M5LS-10-303	M5LS-10-316

Adapter - M6 External to 10-32 Internal Threaded Elbow, Adjustable Position

DESCRIPTION

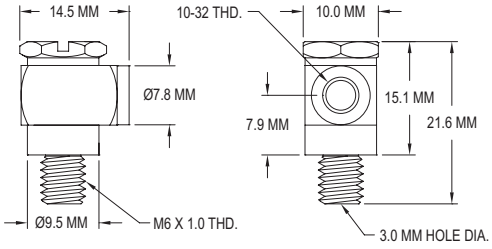
Adjustable position elbow with M6 external to 10-32 internal thread.

MATERIAL

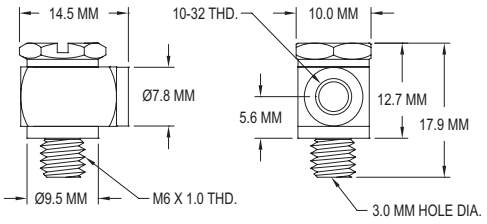
Brass or ENP Brass body with 303 stainless steel stud.

SEALS

Two Buna-N O-rings, OR-1428-B and OR-1428-52-B. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.



M6LS-10-TALL



M6LS-10-ENP

M6LS-10-TALL

Part Number Brass Body & 303 Stainless Stud	Part Number ENP Brass Body & 303 Stainless Stud	Outlet Height
	M6LS-10-ENP	5.6mm
M6LS-10-TALL		7.9mm

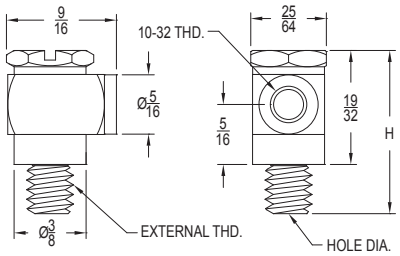
[1] Brass stud does not have a screwdriver slot.

Adapter - 1/4-20 or 1/4-28 External to 10-32 Internal Threaded Elbow, Adjustable Position

DESCRIPTION
Adjustable position elbow with 1/4-20 or 1/4-28 external to 10-32 internal thread.

MATERIAL
Brass body with 303 stainless steel stud.

SEALS
Two Buna-N O-rings, OR-1428-B and OR-1428-52-B. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.

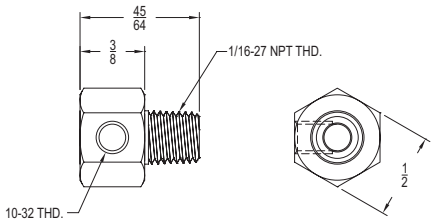


Part Number Brass Body & 303 Stainless Stud	External Thread	H	Hole Diam.
MLS-1420-10-TALL	1/4-20	27/32	1/8
MLS-1428-10-TALL	1/4-28	51/64	9/64

Adapter - 1/16" External NPT to 10-32 Internal Threaded Elbow

DESCRIPTION
1/16" NPT external to 10-32 internal threaded elbow adapter.

MATERIAL
303 or 316 stainless steel.

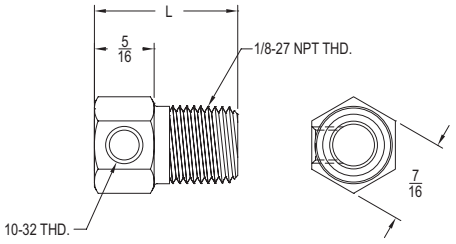


Part Number 303 Stainless	Part Number 316 Stainless
MPAL-1610-303	MPAL-1610-316

Adapter - 1/8" External NPT to 10-32 Internal Threaded Elbow

DESCRIPTION
1/8" NPT external to 10-32 internal elbow adapter.

MATERIAL
Brass or 303 stainless steel.

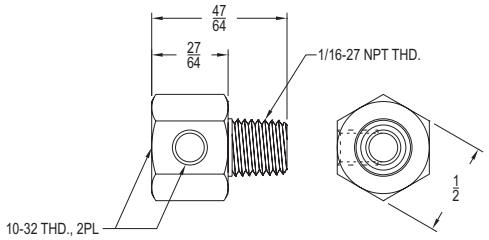


Part Number Brass	Part Number 303 Stainless	L Brass	L SS
MPAL-1810	MPAL-1810-303	3/4	11/16

Adapter - 1/16" NPT External Pipe Thread to 10-32 Internal Threaded Street Tee

DESCRIPTION
1/16" NPT external to 10-32 internal tee adapter.

MATERIAL
303 stainless steel.

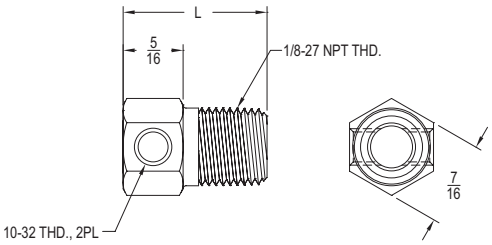


Part Number 303 Stainless
MPAHL-1610-303

Adapter - 1/8" External NPT to 10-32 Internal Threaded Tee

DESCRIPTION
1/8" NPT external to 10-32 internal tee adapter.

MATERIAL
Brass or 303 stainless steel.

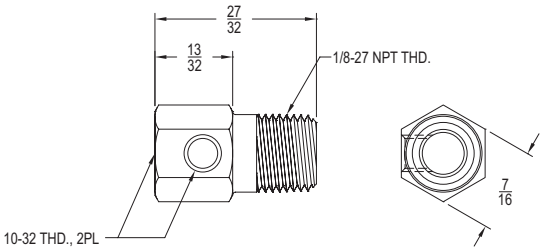


Part Number Brass	Part Number 303 Stainless	L Brass	L SS
MPAT-1810	MPAT-1810-303	3/4	11/16

Adapter - 1/8" External NPT to 10-32 Internal Threaded Street Tee

DESCRIPTION
1/8" NPT external to 10-32 internal tee adapter.

MATERIAL
Brass.

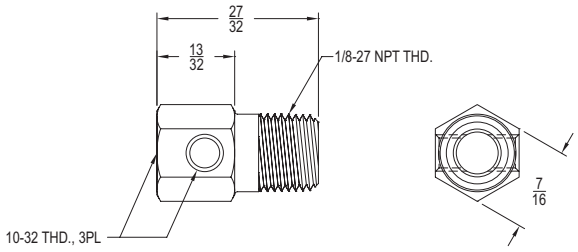


Part Number Brass
MPAHL-1810

Adapter - 1/8" External Pipe Thread to 10-32 Internal Threaded Cross

DESCRIPTION
1/8" NPT external to 10-32 internal cross adapter.

MATERIAL
Brass.



Part Number Brass
MPAC-1810

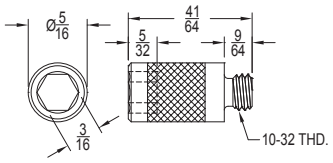
FITTING PLUGS

NEW Knurled Test Plugs - 10-32

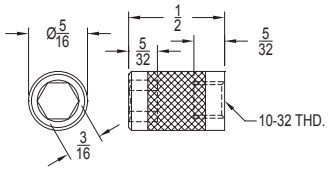
DESCRIPTION
Test plugs with 10-32 external or 10-32 internal thread. Plugs are knurled for fast and easy finger tight installation. All plugs also have a 3/16" recessed hex drive.

MATERIAL
303 stainless steel.

SEALS
For MSPK-10M: One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM. Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. No seal on MSPK-10F.



MSPK-10M-303



MSPK-10F-303

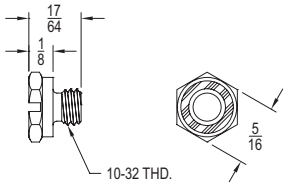
Part Number 303 Stainless	Thread
MSPK-10M-303	10-32 External
MSPK-10F-303	10-32 Internal

Screw Plug – 10-32 Thread

DESCRIPTION
Screw plug with 10-32 external thread. Used to block unused port.

MATERIAL
Brass, 303 or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



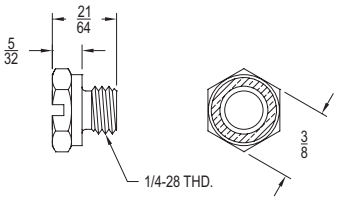
Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
MSP-1000	MSP-1000-303	MSP-1000-316

Screw Plug – 1/4-28 Thread

DESCRIPTION
Screw plug with 1/4-28 external thread. Used to block unused port.

MATERIAL
Brass, 303 or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-1428-B. Optional materials: EPDM, Fluorocarbon, Silicone, Chloroprene, and Teflon®. See page 11.



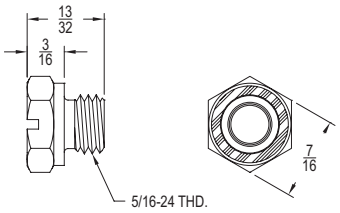
Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
MSP-1428	MSP-1428-303	MSP-1428-316

Screw Plug – 5/16-24 Thread

DESCRIPTION
Screw plug with 5/16-24 external thread. Used to block unused port.

MATERIAL
Brass or 303 stainless steel.

SEALS
One Buna-N O-ring, OR-51624-B. Optional materials: EPDM and Fluorocarbon. See page 11.



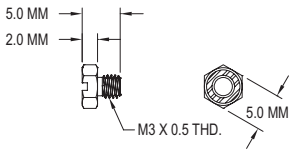
Part Number Brass	Part Number 303 Stainless
MSP-51624	MSP-51624-303

Screw Plug – M3 Thread

DESCRIPTION
Screw plug with M3 external thread. Used to block unused port.

MATERIAL
Brass, 303 or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



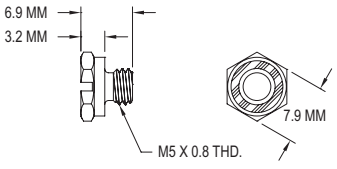
Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
M3SP	M3SP-303	M3SP-316

Screw Plug – M5 Thread

DESCRIPTION
Screw plug with M5 external thread. Used to block unused port.

MATERIAL
Brass, 303 or 316 stainless steel.

SEALS
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

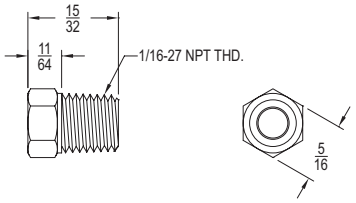


Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
M5SP	M5SP-303	M5SP-316

Pipe Plug – 1/16" NPT

DESCRIPTION
1/16" NPT external pipe plug. Used to block unused port.

MATERIAL
Brass.

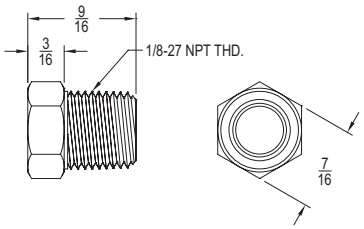


Part Number Brass
MP-16

Pipe Plug – 1/8" NPT

DESCRIPTION
1/8" NPT external pipe plug. Used to block unused port.

MATERIAL
Brass, 303 or 316 stainless steel.

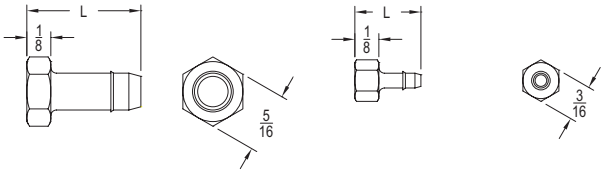


Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
MP-18	MP-18-303	MP-18-316

Tube Plug

DESCRIPTION
Tube plug fitting. Used to block unused tubing.

MATERIAL
Brass or 303 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Hex	L
.170 to 3/16	MHP-1008-1		5/16	19/32
.170 to 3/16	MHP-1008-2		5/16	7/16
1/8	MHP-1332	MHP-1332-303	5/16	7/16
3/32	MHP-1132		3/16	11/32
5/64 (2mm)	MHP-1016		3/16	11/32
1/16	MHP-1012		3/16	11/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

BULKHEAD FITTINGS

10-32 Threaded Bulkhead Fitting

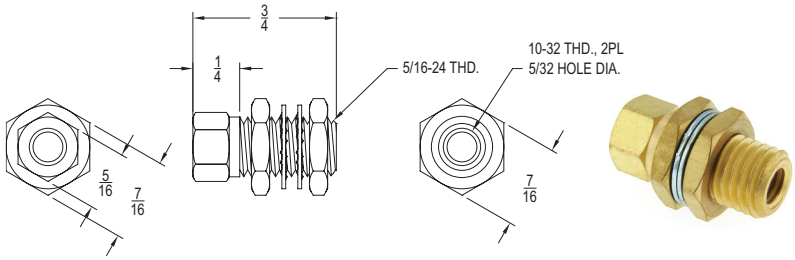
DESCRIPTION

Miniature bulkhead fitting with an internal 10-32 thread and an external 5/16-24 thread. The MBH-1010-1 series is provided with one nut and one lock washer for use in threaded panels. The MBH-1010-2 series is supplied with two nuts and two lock washers for use in clearance holes.

MATERIAL

Brass, 303 or 316 stainless steel body, brass, or ENP brass nut(s), 410 stainless steel washer(s).

Note: Fits bulkhead up to 7/16" thick.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hex Nut(s) Included	Lock Washer(s) Included
MBH-1010-1	MBH-1010-1-303	MBH-1010-1-316	1	1
MBH-1010-2	MBH-1010-2-303	MBH-1010-2-316	2	2

O-Ring Sealed Barb to Barb Bulkhead Fitting with 5/16" Hex

DESCRIPTION

Bulkhead fitting with built-in barbed tubing connections. 5/16" hex body and O-ring seal.

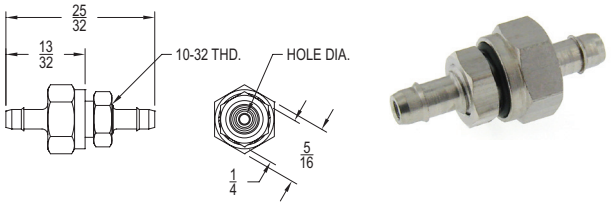
MATERIAL

Brass, 303, or 316 stainless steel body. Brass or 303 stainless steel nut.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

NOTE: Fits bulkhead up to 1/16" thick.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam.
3/32	MBHA-1132	MBHA-1132-303	MBHA-1132-316	1/16
5/64 (2 mm)	MBHA-1016	MBHA-1016-303	MBHA-1016-316	3/64
1/16	MBHA-1012	MBHA-1012-303	MBHA-1012-316	3/64

O-Ring Sealed Barb to Barb Bulkhead Reducer with 5/16" Hex

DESCRIPTION

Bulkhead reducer fitting with built-in barbed tubing connections. Custom barb combinations are available upon request, please consult factory for information.

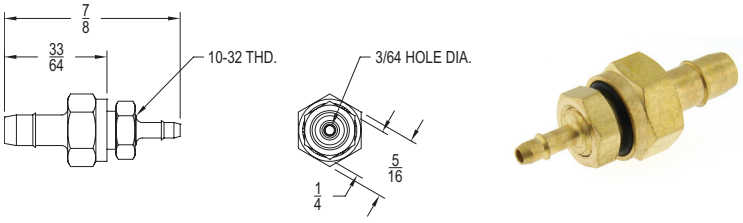
MATERIAL

Brass body and nut.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

NOTE: Fits bulkhead up to 1/16" thick.



Suggested Tube ID [1] (Large)	Suggested Tube ID [1] (Small)	Part Number Brass
1/8	1/16	MBHAH-1332-1012

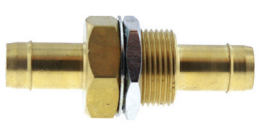
[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

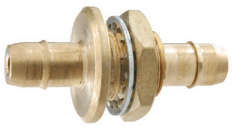
Non-Sealed Barb to Barb Bulkhead Fitting

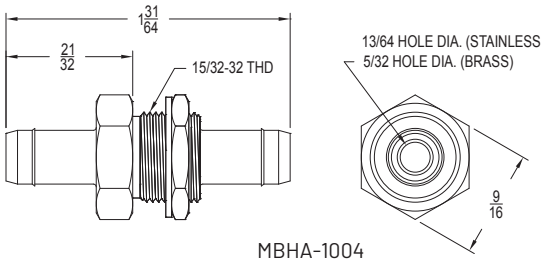
DESCRIPTION
Bulkhead fitting with built-in barbed tubing connections, round flange or 9/16" hex body.

MATERIAL
Brass, 303 or 316 stainless steel body, 410 stainless steel washer, brass, or ENP brass nut.

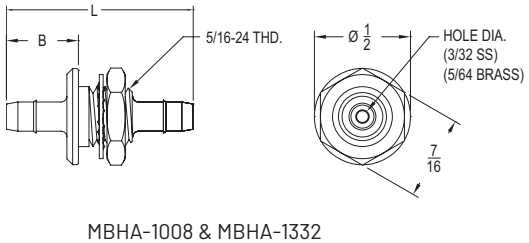
Note: Fits bulkhead up to 7/32" thick.







MBHA-1004



MBHA-1008 & MBHA-1332

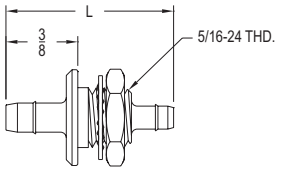
Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	B	L
1/4	MBHA-1004	MBHA-1004-303		21/32	1 31/64
.170 to 3/16	MBHA-1008-1	MBHA-1008-1-303	MBHA-1008-1-316	17/32	1 9/32
.170 to 3/16	MBHA-1008-2	MBHA-1008-2-303	MBHA-1008-2-316	3/8	31/32
1/8	MBHA-1332	MBHA-1332-303	MBHA-1332-316	3/8	31/32

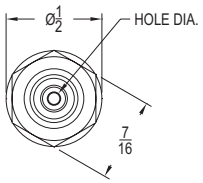
Non-Sealed Barb to Barb Bulkhead Reducer with 1/2" Round Flange

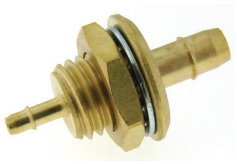
DESCRIPTION
Bulkhead reducer fitting with built-in barbed tubing connections and round flange body. Custom barb combinations are available upon request, please consult factory for information.

MATERIAL
Brass or 303 stainless steel body, 410 stainless steel washer, brass or ENP brass nut.

NOTE: Fits bulkhead up to 7/32" thick.







Suggested Tube ID [1] (Large)	Suggested Tube ID [1] (Small)	Part Number Brass	Part Number 303 Stainless	Hole Diam.	L
.170 to 3/16	1/8	MBHAR-1008-2-1332		5/64	31/32
1/8	3/32		MBHAR-1332-1132-303	5/64	7/8
1/8	1/16	MBHAR-1332-1012	MBHAR-1332-1012-303	3/64	7/8

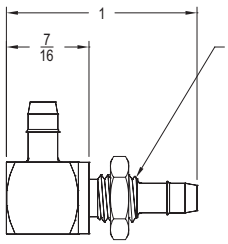
Barbed Elbow Bulkhead Fitting

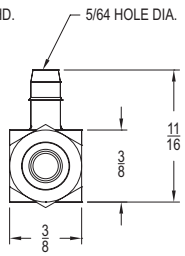
DESCRIPTION
Bulkhead elbow fitting with built-in barb for 1/8" ID tubing connections.

MATERIAL
Brass.

SEALS
One Buna-N O-ring, OR-1428-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, and Chloroprene.

Note: Fits bulkhead up to 11/64" thick.





Suggested Tube ID [1]	Part Number Brass
1/8	MBLA-1332

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Internal Luer - 10-32 Thread

DESCRIPTION

Internal luer lock fitting with 10-32 thread.

MAXIMUM PRESSURE RATING

40 psig max, with liquid media. Not guaranteed to seal with gaseous media, due to metal to metal seal.

MATERIAL

303 or 316 stainless steel.

SEALS

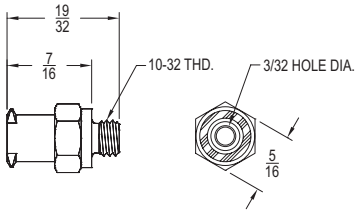
Buna-N O-ring seals. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.

Note: Configurations with a built-in shut-off will close to prevent flow when disconnected. Internal luers with no shut-off or with single shut-off must be paired with an external luer with no shut-off. Double shut-off internal luers must be paired with double shut-off external luers. See page 90.

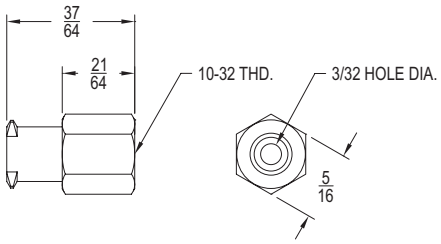
PART DESIGNATION: LULFA-10B-CDE
Replace each underlined letter with a code.
B and C must be filled in. A, D, and E are extra available options.

Shut Off Feature	Code	Description
A		No integrated shut-off feature (No Designation) [1]
	S	Single shut-off
	D	Double shut-off [2]
Connection		
B	M	10-32 external thread
	F	10-32 internal thread
Body Material		
C	3	303 Stainless Steel
	6	316 Stainless Steel
Seal Material [3]		
D		Buna-N (No Designation) [1]
	E	EPDM
	V	Fluorocarbon
	S	Silicone
	F	FFKM
	FS	Fluorosilicone
	T	Teflon [4]
Special Options		
E	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

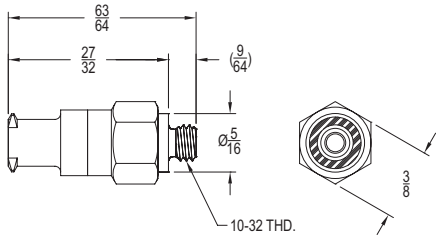
1 Standard configuration is no-shut-off and Buna-N or no O-ring seal. No code is necessary to specify these options.
2 Must be specified with a double shut-off type external half to function properly.
3 No shut-off configurations with 10-32 internal thread do not come equipped with an O-ring seal.
4 Only available on configurations without shut-off.



LULF-10M



LULF-10F



LULFS-10M

External Luer - 10-32 Thread

DESCRIPTION
External luer lock fitting with 10-32 thread.

MAXIMUM PRESSURE RATING
40 psig max, with liquid media. Not guaranteed to seal with gaseous media, due to metal to metal seal.

MATERIAL
303 or 316 stainless steel.

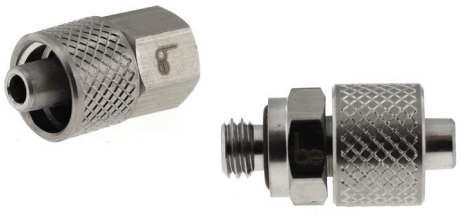
SEALS
Buna-N O-ring seals. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.

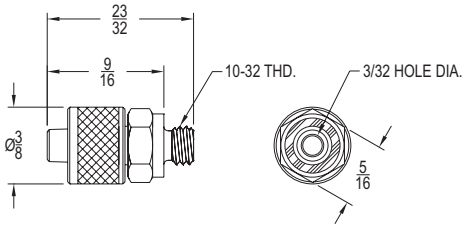
Note: Configurations with a built-in shut-off will close to prevent flow when disconnected. External luers with no shut-off may be paired with an internal luer with no shut-off or with single shut-off. Double shut-off external luers must be paired with double shut-off internal luers. See page 89.

PART DESIGNATION: LULMA-10B-CDE
Replace each underlined letter with a code.
B and C must be filled in. A, D, and E are extra available options.

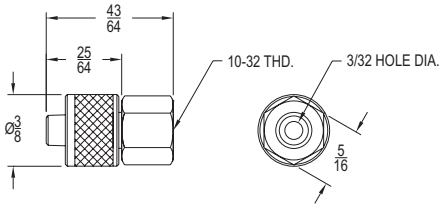
Shut Off Feature	Code	Description
A		No integrated shut-off feature (No Designation) [1]
	D	Double shut-off [2]
Connection		
B	M	10-32 external thread
	F	10-32 internal thread
Body Material		
C	3	303 Stainless Steel
	6	316 Stainless Steel
Seal Material [3]		
D		Buna-N (No Designation) [1]
	E	EPDM
	V	Fluorocarbon
	S	Silicone
	F	FFKM
	FS	Fluorosilicone
	T	Teflon [4]
Special Options		
E	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

1 Standard configuration is no-shut-off and Buna-N or no O-ring seal. No code is necessary to specify these options.
2 Must be specified with a double shut-off type internal half to function properly.
3 No shut-off configurations with 10-32 internal thread do not come equipped with an O-ring seal.
4 Only available on configurations without shut-off.

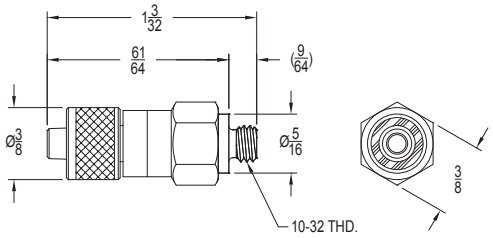




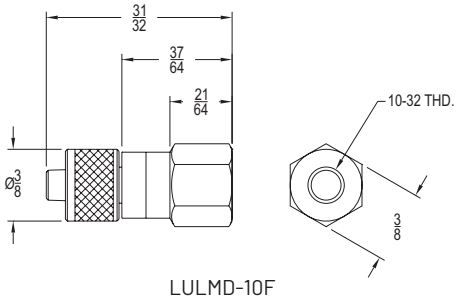
LULM-10M



LULM-10F



LULMD-10M



LULMD-10F

Miniature Filter/Screen - 10-32 External Thread to Barb

PART DESIGNATION: FMHABBB-C-DD-E-FG
Replace each underlined letter with a code.
BBB and DD must be filled in. A, C, E, F, and G are extra available options.

Filter Type	Code	Description
A		Porous Metal Disk (No Designation)[1]
	S	Wire Mesh Screen[2]
Body Configuration		
BBB	104	1/4" Tube ID, 5/16" Hex Body
	181	.170" to 3/16" Tube ID Long Version, 5/16" Hex Body
	182	.170" to 3/16" Tube ID Short Version, 5/16" Hex Body
	332	1/8" Tube ID, 5/16" Hex Body
	132	3/32" Tube ID, 5/16" Hex Body
	114	3/32" Tube ID, 1/4" Hex Body
	016	5/64" Tube ID, 5/16" Hex Body
	164	5/64" Tube ID, 1/4" Hex Body
	012	1/16" Tube ID, 5/16" Hex Body
	124	1/16" Tube ID, 1/4" Hex Body
Body Material		
C		Brass (No Designation)[1]
	3	303 Stainless Steel
Filter Size		
DD	05	5 Micron Porous Metal Disc
	20	20 Micron Porous Metal Disc
	40	40 Micron Porous Metal Disc
	43	43 Micron Wire Mesh Screen
Filter Material		
E		Bronze (No Designation)[1]
	6	316 Stainless Steel
Seal Material		
F		Buna-N (No Designation)[1]
	E	EPDM
	V	Fluorocarbon
	S	Silicone
	F	FFKM
	AF	TFE/P
	FS	Fluorosilicone
	T	Teflon
Special Options		
G	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

1 Standard configuration is Bronze Porous Metal Disc, brass body, Buna-N seal. No code is necessary to specify these options.
2 Wire Mesh Screen Filters are currently stocked in 43 micron filter size and 316 stainless steel filter material only.

DESCRIPTION

10-32 external thread to barb, with porous sintered filter or wire mesh screen pressed into the external threaded end of the fitting.

MAXIMUM PRESSURE RATING

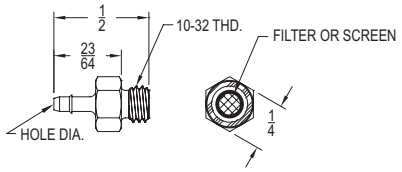
100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

MATERIAL

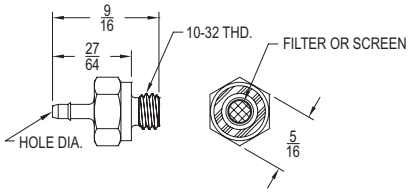
Brass or 303 stainless steel body with bronze or 316 stainless steel filter element (1/8" diameter).

SEALS

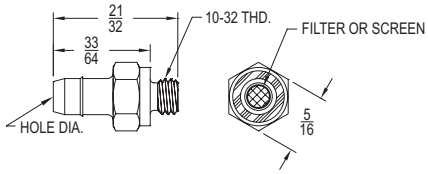
For 5/16 hex models: One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. For ¼ hex models: One Buna-N O-ring, OR-14-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, and FFKM. See page 11.



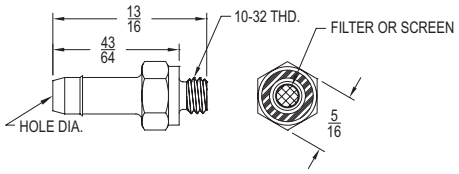
FMH124, FMH164, FMH114



FMH012, FMH016, FMH132



FMH332, FMH182



FMH181, FMH104

NEW Miniature Filter/Screen - 10-32 External Thread to Barb, Elbow, Adjustable Position

PART DESIGNATION: **MFL-A-B-CDE**
Replace each underlined letter with a code. A, B, and C must be filled in. D and E are extra available options.

Filter Type	Code	Description
A	05-6	5 Micron 316 SS Porous Metal Disc
	20-6	20 Micron 316 SS Porous Metal Disc
	40-6	40 Micron 316 SS Porous Metal Disc
	43S-6	43 Micron 316 SS Wire Mesh Screen
Tubing ID[1]		
B	1008-1	.170" to 3/16" (4.5mm) Long Barb
	1008-2	.170" to 3/16" (4.5mm) Short Barb
	1460	5/32" (4mm)
	1332	1/8" (3.2mm)
	1132	3/32" (2.4 mm)
	1016	5/64" (2.0mm)
	1012	1/16" (1.6mm)
Body/Stud Material		
C	3	303 Stainless Steel
	6	316 Stainless Steel
Seal Material		
D		Buna-N (No Designation)
	E	EPDM
	V	Fluorocarbon
	S	Silicone
	F	FFKM
	AF	TFE/P
	T	Teflon
Special Options		
E	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

1 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

DESCRIPTION

Adjustable position elbow with 10-32 thread, 5/16" hex head stud, and built-in barb. A porous sintered filter or wire mesh screen is pressed into the external threaded end of the fitting.

MAXIMUM PRESSURE RATING

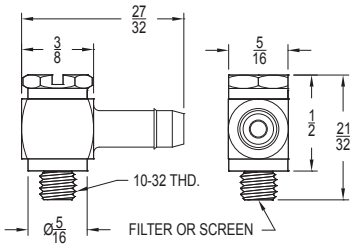
100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

MATERIAL

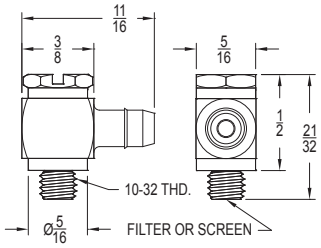
303 or 316 stainless steel body and stud. 316 stainless steel filter element.

SEALS

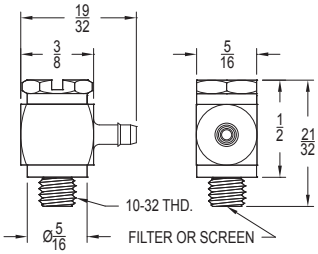
Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Fluorosilicone ,Teflon®, TFE/P, and FFKM. See page 11.



MFL-A-1008-1-C



MFL-A-1008-2-C, MFL-A-1460-C, & MFL-A-1332-C



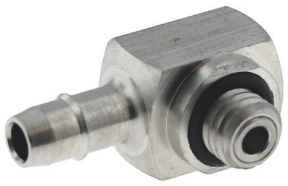
MFL-A-1132-C, MFL-A-1016-C, & MFL-A-1012-C

NEW Miniature Filter/Screen - 10-32 External Thread to Barb, Elbow, Adjustable Position, Low Profile

PART DESIGNATION: SFL-A-B-CDE
Replace each underlined letter with a code. A, B, and C must be filled in. D and E are extra available options.

Filter Type	Code	Description
A	05-6	5 Micron 316 SS Porous Metal Disc
	20-6	20 Micron 316 SS Porous Metal Disc
	40-6	40 Micron 316 SS Porous Metal Disc
	43S-6	43 Micron 316 SS Wire Mesh Screen
Tubing ID[1]		
B	1008-2	.170" to 3/16" (4.5mm)
	1332	1/8" (3.2mm)
	1132	3/32" (2.4 mm)
	1016	5/64" (2.0mm)
	1012	1/16" (1.6mm)
Body/Stud Material		
C	3	303 Stainless Steel
	6	316 Stainless Steel
Seal Material		
D		Buna-N (No Designation)
	E	EPDM
	V	Fluorocarbon
	S	Silicone
	F	FFKM
	FS	Fluorosilicone
	T	Teflon
Special Options		
E	I	Instrument Cleaned
	K	Krytox Lubricant
	IK	Instrument Cleaned & Krytox Lubricant

1 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.



DESCRIPTION

Low profile, adjustable position elbow with 10-32 thread and built-in barb. A porous sintered filter or wire mesh screen is pressed into the external threaded end of the fitting.

MAXIMUM PRESSURE RATING

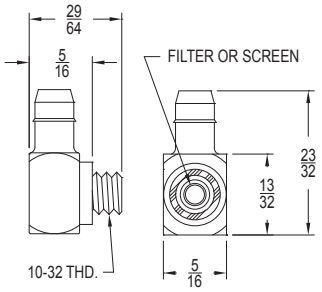
100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

MATERIAL

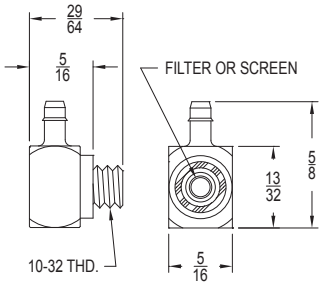
303 or 316 stainless steel body and stud. 316 stainless steel filter element.

SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone. See page 11.



SFL-A-1008-2-C & SFL-A-1332-C



SFL-A-1132-C, SFL-A-1016-C, & SFL-A-1012-C

Miniature Filter/Screen – 10-32 External to 10-32 Internal Thread

DESCRIPTION

The filter element is contained within a 10-32 external to 10-32 internal threaded fitting so that components may be stacked for maximum efficiency and compactness. The filter is pressed into the external threaded end of the fitting. The filter is used to keep foreign material out of the fluid stream where small orifices may get clogged by contaminants.

MAXIMUM PRESSURE RATING

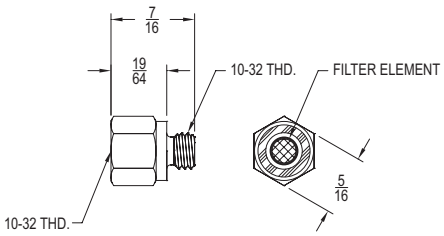
250 psig

MATERIAL

Brass, 303 or 316 stainless steel body with bronze or 316 stainless steel filter element (1/8" diameter). Electroless nickel plated brass variations are available upon request.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Part Number Brass Body with Bronze Filter	Part Number 303 SS Body with 316 SS Filter	Part Number 316 SS Body with 316 SS Filter	Filter Size in Microns
CF-05	CF-303-05-316	CF-316-05-316	5 (porous metal disc)
CF-20	CF-303-20-316	CF-316-20-316	20 (porous metal disc)
CF-40	CF-303-40-316	CF-316-40-316	40 (porous metal disc)
CFS-43-316 [1]	CFS-303-43-316	CFS-316-43-316	43 (metal screen)

NEW Miniature Filter - M3 External Thread to Barb

DESCRIPTION

M3 external thread to barb, with 20 micron porous sintered filter element pressed into the external threaded end of the fitting.

MAXIMUM PRESSURE RATING

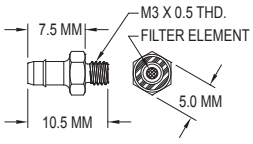
100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

MATERIAL

303 stainless steel fitting body, with 316 stainless steel filter element.

SEALS

One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Fluorosilicone and Silicone. See page 11.



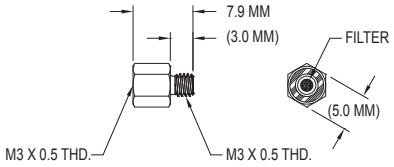
Suggested Tube ID[2]	Part Number 303 SS Body with 316 SS Filter
5/64 (2mm)	FM3H16-3-20-6
1/16	FM3H12-3-20-6

[1] Brass body with 316 stainless steel wire mesh screen.
[2] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Miniature Filter - M3 External to M3 Internal Thread

DESCRIPTION

The filter element is contained within a M3 external to M3 internal threaded fitting so that components may be stacked for maximum efficiency and compactness. The filter is pressed into the external threaded end of the fitting. The filter is used to keep foreign material out of the fluid stream where small orifices may get clogged by contaminants.



MAXIMUM PRESSURE RATING

250 psig

MATERIAL

303 or 316 stainless steel body with 316 stainless sintered filter.

SEALS

One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Fluorosilicone and Silicone. See page 11.

Part Number 303 SS Body with 316 SS Filter	Part Number 316 SS Body with 316 SS Filter	Filter Size in Microns
C3F-303-20-316	C3F-316-20-316	20 (porous metal disc)

SPOTLIGHT

Beswick's Custom Design and Engineering Support

The unique advantages of Beswick products are the result of over 55 years experience designing and innovating. Beswick's Application/Sales personnel are degreed mechanical engineers who are trained to assist you with your application needs. All Beswick employees are committed to the design and manufacture of innovative products that will provide outstanding value to our customers. Beswick Engineering has experience with a wide variety of technical applications throughout the world and can customize our products to meet your specific requirements.

NEW Miniature Filter/Screen - M5 External Thread to Barb, Elbow, Adjustable Position

DESCRIPTION

Adjustable position elbow with M5 thread, 5/16" hex head stud, and built-in barb. A porous sintered filter or wire mesh screen is pressed into the external threaded end of the fitting.

MAXIMUM PRESSURE RATING

100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

MATERIAL

303 or 316 stainless steel body and stud. 316 stainless steel filter element.

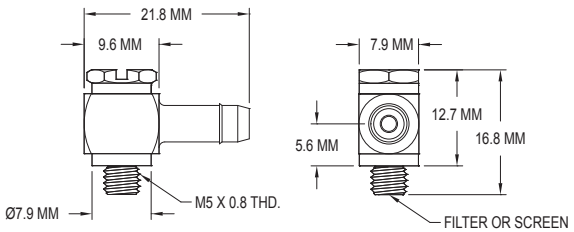
SEALS

Two Buna-N O-rings, OR-516-40-B and OR-516-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon, FFKM, TFE/P, and Fluorosilicone. See page 11.

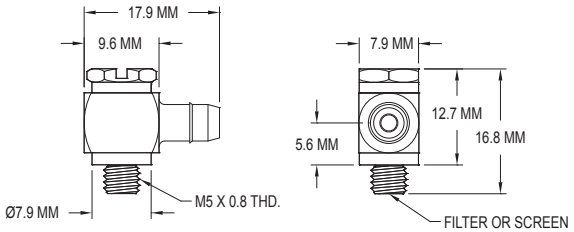
PART DESIGNATION: **M5FL-A-B-CDE**
Replace each underlined letter with a code.
A, B, and C must be filled in. D and E are extra available options.

Filter Type	Code	Description
A	05-6	5 Micron 316 Stainless Steel Porous Metal Disc
	20-6	20 Micron 316 Stainless Steel Porous Metal Disc
	40-6	40 Micron 316 Stainless Steel Porous Metal Disc
	43S-6	43 Micron 316 Stainless Steel Wire Mesh Screen
Tubing ID[1]		
B	1008-1	.170" to 3/16" (4.5mm) Long Barb
	1008-2	.170" to 3/16" (4.5mm)
	1460	5/32" (4mm)
	1332	1/8" (3.2mm)
	1132	3/32" (2.4 mm)
	1016	5/64" (2.0mm)
	1012	1/16" (1.6mm)
Body/Stud Material		
C	3	303 Stainless Steel
	6	316 Stainless Steel
Seal Material		
D		Buna-N (No Designation)
	E	EPDM
	V	Fluorocarbon
	S	Silicone
	F	FFKM
	FS	Fluorosilicone
	AF	TFE/P
	T	Teflon
Special Options		
E	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

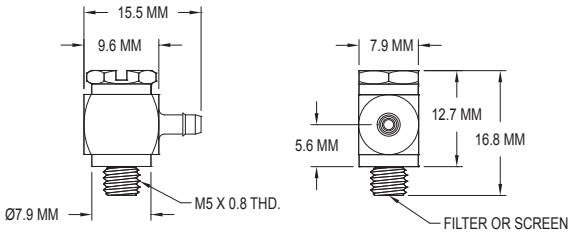
1 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing materials.



M5FL-A-1008-1-C



M5FL-A-1008-2-C, M5FL-A-1460-C, & M5FL-A-1332-C



M5FL-A-1132-C, M5FL-A-1016-C, & M5FL-A-1012-C

NEW

Miniature Filter/Screen - M5 External Thread to Barb, Elbow, Adjustable Position, Low Profile

DESCRIPTION

Low profile, adjustable position elbow with M5 thread and built-in barb. A porous sintered filter or wire mesh screen is pressed into the external threaded end of the fitting.

MAXIMUM PRESSURE RATING

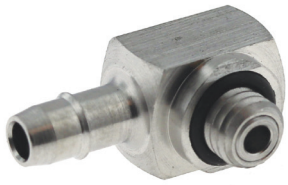
Maximum pressure rating is 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

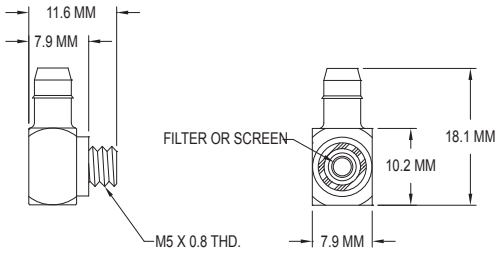
MATERIAL

303 or 316 stainless steel body and stud. 316 stainless steel filter element.

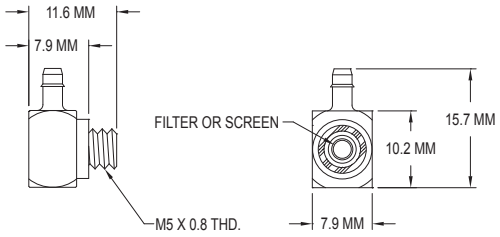
SEALS

Two Buna-N O-rings, OR-14-B and OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, FFKM, and Fluorosilicone.
See page 11.





S5FL-A-1008-2-C & S5FL-A-1332-C



S5FL-A-1132-C, S5FL-A-1016-C, & S5FL-A-1012-C

PART DESIGNATION: S5FL-A-B-CDE
Replace each underlined letter with a code.
A, B, and C must be filled in. D and E are extra available options.

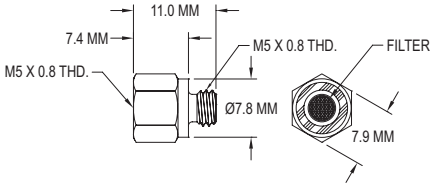
Filter Type	Code	Description
A	05-6	5 Micron 316 Stainless Steel Porous Metal Disc
	20-6	20 Micron 316 Stainless Steel Porous Metal Disc
	40-6	40 Micron 316 Stainless Steel Porous Metal Disc
	43S-6	43 Micron 316 Stainless Steel Wire Mesh Screen
Tubing ID[1]		
B	1008-2	.170" to 3/16" (4.5mm)
	1332	1/8" (3.2mm)
	1132	3/32" (2.4 mm)
	1016	5/64" (2.0mm)
	1012	1/16" (1.6mm)
Body/Stud Material		
C	3	303 Stainless Steel
	6	316 Stainless Steel
Seal Material		
D		Buna-N (No Designation)
	E	EPDM
	V	Fluorocarbon
	S	Silicone
	F	FFKM
	FS	Fluorosilicone
	T	Teflon
Special Options		
E	I	Instrument Cleaned
	K	Krytox Lubricant
	IK	Instrument Cleaned and Krytox Lubricant

1 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

Miniature Filter/Screen – M5 External Thread to M5 Internal Thread

DESCRIPTION

The filter element is contained within a M5 external to M5 internal threaded fitting so that components may be stacked for maximum efficiency and compactness. The filter is pressed into the external threaded end of the fitting. The filter is used to keep foreign material out of the fluid stream where small orifices may get clogged by contaminants.



MATERIAL

Brass, 303 or 316 stainless steel body with bronze or 316 stainless steel filter element (1/8" diameter). Electroless nickel plated brass variations are available upon request.

SEALS

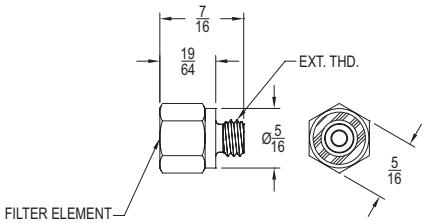
One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

Part Number Brass Body with Bronze Filter	Part Number 303 SS Body with 316 SS Filter	Part Number 316 SS Body with 316 SS Filter	Filter Size in Microns
C5F-05	C5F-303-05-316	C5F-316-05-316	5 (porous metal disc)
C5F-20	C5F-303-20-316	C5F-316-20-316	20 (porous metal disc)
C5F-40	C5F-303-40-316	C5F-316-40-316	40 (porous metal disc)
C5FS-43-316 [1]	C5FS-303-43-316	C5FS-316-43-316	43 (metal screen)

Miniature Breather – 10-32 External Thread or M5 External Thread

DESCRIPTION

5/16" hex head breather with a sintered filter element or screen (opposite to 10-32 or M5 external thread). The breather is used to keep foreign material from entering a fluid circuit.



MATERIAL

Brass, 303, or 316 stainless steel body with bronze or 316 stainless steel filter element.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

Part Number Brass Body with Bronze Filter	Part Number 303 SS Body with 316 SS Filter	Part Number 316 SS Body with 316 SS Filter	Filter Size in Microns	External Thread
MB-05	MB303-05-316	MB316-05-316	5 (porous metal disc)	10-32
MB-20	MB303-20-316	MB316-20-316	20 (porous metal disc)	10-32
MB-40	MB303-40-316	MB316-40-316	40 (porous metal disc)	10-32
MBS-43-316 [1]	MBS303-43-316	MBS316-43-316	43 (metal screen)	10-32
M5B-05		M5B316-05-316	5 (porous metal disc)	M5 x 0.8
M5B-20		M5B316-20-316	20 (porous metal disc)	M5 x 0.8
M5B-40		M5B316-40-316	40 (porous metal disc)	M5 x 0.8
M5BS-43-316 [1]		M5BS316-43-316	43 (metal screen)	M5 x 0.8

[1] Brass body with 316 stainless steel wire mesh screen.

Miniature Muffler

DESCRIPTION

The muffler is used for reducing exhaust and inlet noise in pneumatic circuits.

MATERIAL

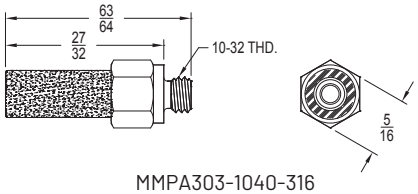
Brass with sintered bronze element or 303 stainless steel with electroless nickel plated bronze or 316 stainless steel element.

SEALS

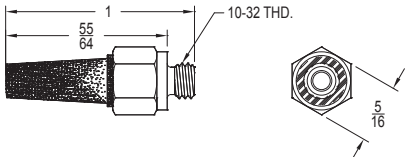
One Buna-N O-ring, OR-516-40-B, used on 10-32 threaded mufflers only, not on pipe threaded versions. OR-14-B used on MMPA-1040-1/4. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

MMPA-1040

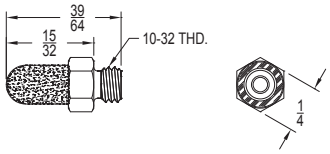
Part Number Brass Body with Bronze Muffler	Part Number 303 Stainless Body w/ENP Bronze Muffler	Part Number 303 Stainless Body w/316 Stainless Muffler	External Thread	Hex	Micron Grade
MMPA-1040-1/4			10-32	1/4	40
MMPA-1005	MMPA303-1005-ENP		10-32	5/16	5
MMPA-1040	MMPA303-1040-ENP	MMPA303-1040-316	10-32	5/16	40
MMPA-1605			1/16 - 27 NPT	5/16	5
MMPA-1640			1/16 - 27 NPT	5/16	40
MMPA-1805			1/8 - 27 NPT	7/16	5
MMPA-1840	MMPA303-1840-ENP	MMPA303-1840-316	1/8 - 27 NPT	7/16	40
MMPA-1405			1/4 - 18 NPT	9/16	5
MMPA-1440	MMPA303-1440-ENP	MMPA303-1440-316	1/4 - 18 NPT	9/16	40



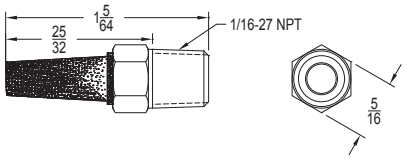
MMPA303-1040-316



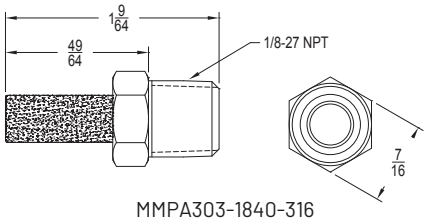
MMPA-1005 & MMPA-1040



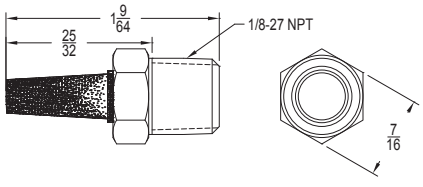
MMPA-1040-1/4



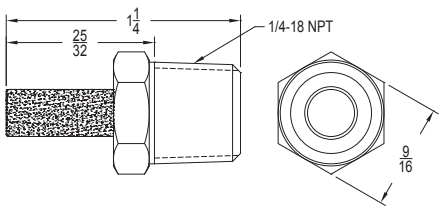
MMPA-1605 & MMPA-1640



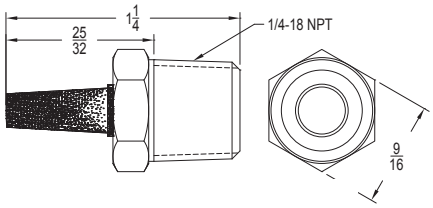
MMPA303-1840-316



MMPA-1805 & MMPA-1840



MMPA303-1440-316



MMPA-1405 & MMPA-1440

ORIFICE FITTINGS

Orifice Selection Table

DESCRIPTION

Beswick micro-drilled orifice fittings can be ordered in a wide range of orifice diameter sizes. Select the orifice fitting body style (shown on pages 100-103) and then select the orifice diameter from the table on the right. Replace the "XXX" at the end of the body style part number with an orifice part number suffix, such as "004", from the table on the right. For example, the part number for a brass M3 threaded barbed fitting for 1/16" ID tubing with a 0.004" diameter orifice is M3H-1012-004.

Beswick has developed specialized micro-drilling technology to produce precision orifices as small as 0.004" diameter in brass and stainless steel. Drilled orifice fittings are held to a tolerance of +/- 0.0005" and are an excellent choice for the majority of applications.

For more critical flow metering applications, you may want to consider Beswick sapphire jewel orifice fittings (shown on pages 104-105). Sapphire jewel orifice fittings are offered with hole diameters as small as 0.003".

Orifice fittings are typically used for controlling the speed of air cylinders, for delays in timing and sequencing circuits, and for other applications requiring precisely metered flow. Consult the Beswick factory if you need assistance selecting the appropriate orifice diameter for your application.

NOTE: Please allow sufficient time for delivery. Some configurations are made to order and come with extended lead times. Minimum order requirements may apply to certain sizes and configurations.

For critical metering applications, Beswick recommends selecting an orifice diameter no more than 70% of the nominal waterway diameter leading up to the orifice feature.

Part Number Suffix - Drilled	Orifice Diam. in Inches	Part Number Suffix - Drilled	Orifice Diam. in Inches
-004	.004	-031	.031
-005	.005	-032	.032
-006	.006	-033	.033
-007	.007	-035	.035
-0075	.0075	-036	.036
-008	.008	-037	.037
-009	.009	-038	.038
-010	.010	-039	.039
-011	.011	-040	.040
-012	.012	-041	.041
-013	.013	-042	.042
-0135	.0135	-043	.043
-0145	.0145	-0469	.047
-015	.015	-0492	.049
-0156	.0156	-052	.052
-016	.016	-0531	.053
-018	.018	-055	.055
-020	.020	-0595	.0595
-021	.021	-0625	.0625
-0225	.0225	-063	.063
-024	.024	-065	.065
-025	.025	-067	.067
-026	.026	-070	.070
-028	.028	-073	.073
-0292	.029	-0748	.075
-030	.030	-076	.076

10-32 Threaded Orifice Plug – Drilled

DESCRIPTION

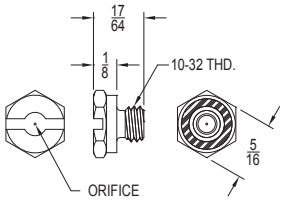
10-32 external threaded fitting with micro-drilled orifice. Choose orifice size from orifice selection table on this page.

MATERIAL

Brass, 303, or 316 stainless steel.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Maximum Orifice Size
MSP-XXX	MSP-303-XXX	MSP-316-XXX	N/A

10-32 Thread to Barb Orifice – Drilled

DESCRIPTION

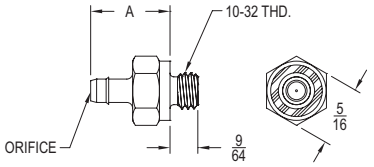
10-32 external threaded barb fitting with micro-drilled orifice. Choose orifice size from "Orifice Selection Table" on page 100.

MATERIAL

Brass, 303 or 316 stainless steel.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Installed Height A	Maximum Orifice Size
1/4	MH-1004-XXX	MH-1004-303-XXX	MH-1004-316-XXX	21/32	N/A
.170 to 3/16	MH-1008-1-XXX	MH-1008-1-303-XXX	MH-1008-1-316-XXX	21/32	N/A
.170 to 3/16	MH-1008-2-XXX	MH-1008-2-303-XXX	MH-1008-2-316-XXX	1/2	N/A
1/8	MH-1332-XXX	MH-1332-303-XXX	MH-1332-316-XXX	1/2	N/A
3/32	MH-1132-XXX	MH-1132-303-XXX	MH-1132-316-XXX	13/32	.0625
5/64 (2 mm)	MH-1016-XXX	MH-1016-303-XXX	MH-1016-316-XXX	13/32	.052
1/16	MH-1012-XXX	MH-1012-303-XXX	MH-1012-316-XXX	13/32	.047

10-32, M5 or M3 Threaded Orifice – Drilled

DESCRIPTION

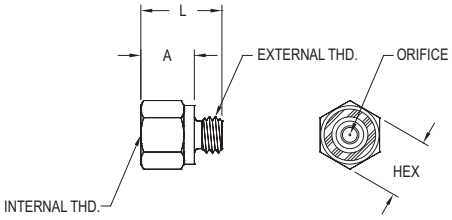
10-32, M5 or M3 internal to external threaded fitting with micro-drilled orifice. Choose orifice size from "Orifice Selection Table" on page 100.

MATERIAL

Brass, 303 or 316 stainless steel.

SEALS

For CC-1010- and CC-M5M5- : One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. For CC-M3M3- : One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Internal Thread	External Thread	Installed Height A	L	Hex Size	Maximum Orifice Size
CC-1010-XXX	CC-1010-XXX-303	CC-1010-XXX-316	10-32	10-32	9/32	7/16	5/16	N/A
CC-M5M5-XXX	CC-M5M5-XXX-303	CC-M5M5-XXX-316	M5 X 0.8	M5 X 0.8	9/32	7/16	5/16	N/A
	CC-M3M3-XXX-303		M3 X 0.5	M3 X 0.5	5 mm	8 mm	5 mm	.047

M3 Threaded Orifice Plug – Drilled

DESCRIPTION

M3 external threaded fitting with micro-drilled orifice. Choose orifice size from orifice selection table on page 100.

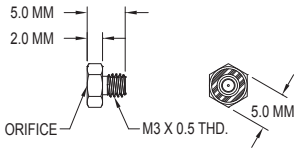
MATERIAL

Brass or 303 stainless steel.

SEALS

One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.

NOTE: There is no screw driver slot.



Part Number Brass	Part Number 303 Stainless	Maximum Orifice Size
M3SP-XXX	M3SP-303-XXX	.055

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

M3 Thread to Barb Orifice – Drilled

DESCRIPTION

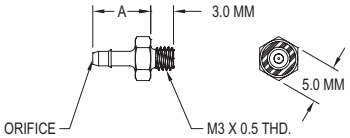
M3 external threaded barb fitting with micro-drilled orifice. Choose orifice size from "Orifice Selection Table" on page 100.

MATERIAL

Brass or 303 stainless steel.

SEALS

One Buna-N O-ring, OR-M3-B. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Installed Height A	Maximum Orifice Size
1/8" (3.2 mm)	M3H-1332-XXX	M3H-1332-303-XXX	9.8 mm (25/64")	.047 (.0625 in SS)
3/32" (2.4 mm)	M3H-1132-XXX	M3H-1132-303-XXX	7.5 mm (19/64")	.047 (.0625 in SS)
5/64" (2 mm)	M3H-1016-XXX	M3H-1016-303-XXX	7.5 mm (19/64")	.047 (.052 in SS)
1/16" (1.6 mm)	M3H-1012-XXX	M3H-1012-303-XXX	7.5 mm (19/64")	.047
3/64" (1.2 mm)		M3H-1046-303-XXX	7.5 mm (19/64")	.018

NEW M5 Thread to Barb Orifice - Drilled

DESCRIPTION

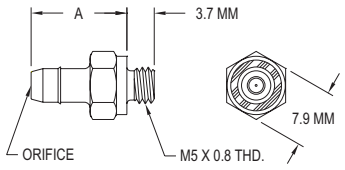
M5 external threaded barb fitting with micro-drilled orifice. Choose orifice size from "Orifice Selection Table" on page 100.

MATERIAL

Brass

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.



Suggested Tube ID [1]	Part Number Brass	Installed Height A	Maximum Orifice Size
1/8" (3.2 mm)	M5H-1332-XXX	12.7 mm (1/2")	N/A
3/32" (2.4 mm)	M5H-1132-XXX	10.3 mm (13/32")	.0625
5/64" (2 mm)	M5H-1016-XXX	10.3 mm (13/32")	.052
1/16" (1.6 mm)	M5H-1012-XXX	10.3 mm (13/32")	.047

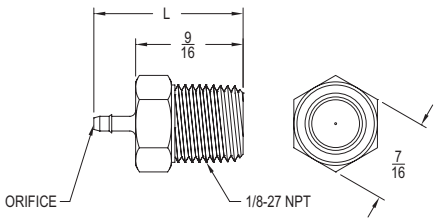
1/8" NPT Thread to Barb Orifice – Drilled

DESCRIPTION

1/8" NPT external thread to barb fitting with micro-drilled orifice. Choose orifice size from "Orifice Selection Table" on page 100.

MATERIAL

Brass or 303 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	L	Maximum Orifice Size
1/4	MPAH-8004-XXX	MPAH-8004-303-XXX	1 1/32	N/A
.170 to 3/16	MPAH-8008-1-XXX	MPAH-8008-1-303-XXX	1 1/32	N/A
.170 to 3/16	MPAH-8008-2-XXX	MPAH-8008-2-303-XXX	7/8	N/A
1/8	MPAH-8332-XXX	MPAH-8332-303-XXX	7/8	N/A
3/32	MPAH-8132-XXX	MPAH-8132-303-XXX	25/32	.0625
5/64 (2mm)	MPAH-8016-XXX	MPAH-8016-303-XXX	25/32	.052
1/16	MPAH-8012-XXX	MPAH-8012-303-XXX	25/32	.047

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

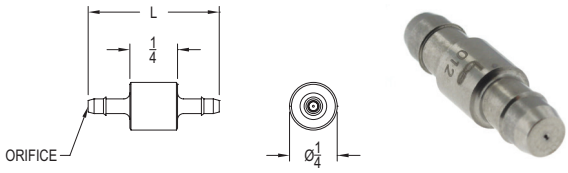
Barb to Barb Orifice – Drilled

DESCRIPTION

Tubing supported in-line nipple fitting with micro-drilled orifice. Choose orifice size from "Orifice Selection Table" on page 100.

MATERIAL

Brass, 303 or 316 stainless steel.



Suggested Tube ID [1]	Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	L	Maximum Orifice Size
.170 to 3/16	MHU-1008-2-XXX	MHU-1008-2-XXX-303	MHU-1008-2-XXX-316	7/8	N/A
1/8	MHU-1332-XXX	MHU-1332-XXX-303	MHU-1332-XXX-316	7/8	N/A
3/32	MHU-1132-XXX	MHU-1132-XXX-303	MHU-1132-XXX-316	11/16	.0625
5/64 (2mm)	MHU-1016-XXX	MHU-1016-XXX-303	MHU-1016-XXX-316	11/16	.052
1/16	MHU-1012-XXX	MHU-1012-XXX-303	MHU-1012-XXX-316	11/16	.047

Jewel Orifice Selection Table

DESCRIPTION

Beswick sapphire orifice jewel fittings can be ordered in a wide range of orifice diameters. Select the orifice fitting body style (shown on pages 104 and 105) and then select the orifice diameter from the table on the right. Replace the "XXX" at the end of the body style part number with an orifice part number suffix, such as "003", from the table on the right. For example, the part number for a brass 10-32 threaded barbed fitting for 1/16" ID tubing with a 0.003" diameter sapphire orifice jewel is MHJ-1012-003.

Sapphire is an excellent orifice material for critical flow applications because of its extreme wear, heat and corrosion resistance. The sapphire orifice diameter is held to a very close tolerance: +/-0.0001". For less demanding applications, Beswick drilled orifice fittings (shown on pages 100-103) provide the required metering at lower cost than Beswick sapphire orifice jewel fittings.

Orifice fittings are typically used for controlling the speed of air cylinders, for delays in timing and sequencing circuits, and for other applications requiring precisely metered flow. Consult the Beswick factory if you need assistance selecting the appropriate orifice diameter size for your application.

NOTE: Assembled to order, not a stock item.
Contact factory for availability.

MAXIMUM PRESSURE RATING

250 psig for CJ/CJE configuration. 100 psig for all other configurations, when used with appropriately sized polyurethane tubing.

Part Number Suffix - Jewel	Orifice Diam. in Inches
-003	.003
-004	.004
-005	.005
-006	.006
-007	.007
-008	.008
-009	.009
-010	.010
-011	.011
-012	.012
-013	.013
-014	.014
-016	.016
-018	.018
-020	.020
-021	.021

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

10-32 Threaded Orifice – Sapphire Jewel

DESCRIPTION

10-32 internal to 10-32 external fitting with sapphire jewel. Jewel is pressed into brass bodies. For stainless steel models, jewel is held in place with a stainless steel retaining screw and Teflon seal. Choose orifice size from "Jewel Orifice Selection Table" on page 103.

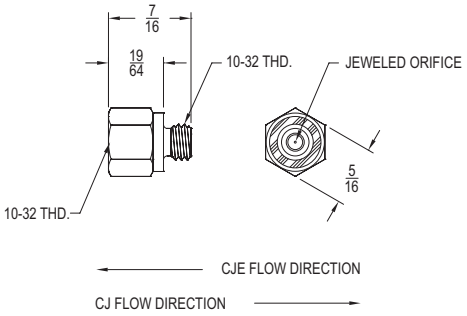
MATERIAL

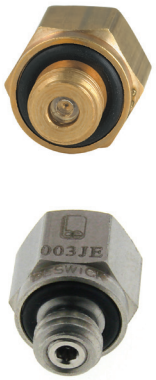
Brass, 303, or 316 stainless steel.

SEALS

For brass bodies: One Buna-N O-ring, OR-516-40-B. For stainless steel bodies: Buna-N and Teflon. All stainless configurations contain a Teflon seal. Buna-N can be replaced with EPDM, Fluorocarbon, Silicone, Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

NOTE: Assembled to order, not a stock item.
Contact factory for availability.





Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Description
CJ-1010-XXX	CJ-1010-XXX-303	CJ-1010-XXX-316	Preferred flow from 10-32 internal to 10-32 external
CJE-1010-XXX	CJE-1010-XXX-303	CJE-1010-XXX-316	Preferred flow from 10-32 external to 10-32 internal

10-32 Thread to Barb Orifice – Sapphire Jewel

DESCRIPTION

10-32 external threaded barb fitting with a sapphire jewel orifice pressed in. Choose orifice size from "Jewel Orifice Selection Table" on page 103.

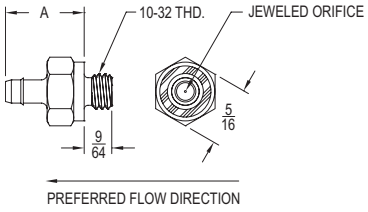
MATERIAL

Brass.

SEALS

One Buna-N O-ring, OR-516-40-B. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, TFE/P, FFKM, Fluorosilicone, and Chloroprene. See page 11.

NOTE: Assembled to order, not a stock item.
Contact factory for availability.



Suggested Tube ID [1]	Part Number Brass	Installed Height A
1/4	MHJ-1004-XXX	21/32
.170 to 3/16	MHJ-1008-1-XXX	21/32
.170 to 3/16	MHJ-1008-2-XXX	1/2
1/8	MHJ-1332-XXX	1/2
3/32	MHJ-1132-XXX	13/32
5/64 (2mm)	MHJ-1016-XXX	13/32
1/16	MHJ-1012-XXX	13/32

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

1/4" NPT or 1/8" NPT Thread to Barb Orifice - Sapphire Jewel

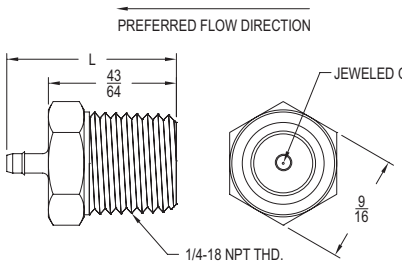
DESCRIPTION

1/4" NPT or 1/8" NPT external thread to barb fitting with sapphire jewel orifice pressed in. Choose orifice size from "Jewel Orifice Selection Table" on page 103.

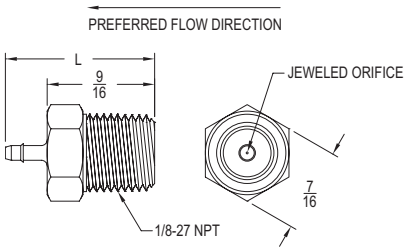
MATERIAL

Brass.

NOTE: Assembled to order, not a stock item. Contact factory for availability.



MPAHJ-4XXX-XXX



MPAHJ-8XXX-XXX

Suggested Tube ID [1]	Part Number Brass	Thread Size	L
1/4	MPAHJ-4004-XXX	1/4-18 NPT	1 9/64
.170 to 3/16	MPAHJ-4008-1-XXX	1/4-18 NPT	1 9/64
.170 to 3/16	MPAHJ-4008-2-XXX	1/4-18 NPT	1
1/8	MPAHJ-4332-XXX	1/4-18 NPT	1
3/32	MPAHJ-4132-XXX	1/4-18 NPT	57/64
5/64 (2mm)	MPAHJ-4016-XXX	1/4-18 NPT	57/64
1/16	MPAHJ-4012-XXX	1/4-18 NPT	57/64
1/4	MPAHJ-8004-XXX	1/8-27 NPT	1 1/32
.170 to 3/16	MPAHJ-8008-1-XXX	1/8-27 NPT	1 1/32
.170 to 3/16	MPAHJ-8008-2-XXX	1/8-27 NPT	7/8
1/8	MPAHJ-8332-XXX	1/8-27 NPT	7/8
3/32	MPAHJ-8132-XXX	1/8-27 NPT	25/32
5/64 (2mm)	MPAHJ-8016-XXX	1/8-27 NPT	25/32
1/16	MPAHJ-8012-XXX	1/8-27 NPT	25/32

Barb to Barb Orifice - Sapphire Jewel

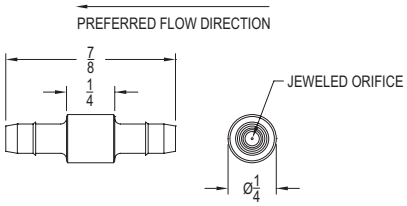
DESCRIPTION

Tubing supported in-line nipple fitting with a sapphire jewel pressed in. Choose orifice size from "Jewel Orifice Selection Table" on page 103.

MATERIAL

Brass.

NOTE: Assembled to order, not a stock item. Contact factory for availability.



Suggested Tube ID [1]	Part Number Brass
.170 to 3/16	MHUJ-1008-2-XXX
1/8	MHUJ-1332-XXX

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

TUBING & ACCESSORIES

Polyurethane Tubing

DESCRIPTION

Polyurethane tubing for use with barbed or push-to-connect fittings. Provides excellent flexibility, resistance to kinking and abrasion, superior memory, elasticity, and resists attack by water, ozone, oil, and grease. Designed for application in medical, dental, and industrial fluid power systems.

MATERIAL

Polyether based polyurethane.

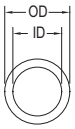
VACUUM RATING

28 inches of Mercury

TEMPERATURE RATING

-40 to +165 degrees Fahrenheit (-40 to +73 Celsius)

NOTE: Polyurethane tubing is sold in 100 foot lengths. Other colors available on special order basis. Minimum order requirements, and extended lead times may apply. Contact a Beswick applications engineer for additional details.



Part Number	ID	OD	Colors[1]	Durometer (shore A)	Working PSI @75° F	Working PSI @150° F	Use with Beswick Barb Size
MUT-1004	1/4	3/8	clear, blue	90	125	50	-1004
MUT-1008	0.170	1/4	clear, black, red, blue	90	115	45	-1008-1/-1008-2
MUT-1332	1/8	1/4	clear, black, red, translucent red, blue, translucent blue, green	85	145	60	-1332
MUT-1132-1	3/32	5/32 (4mm)	clear	85	115	45	-1132
MUT-1132-1-COLOR	3/32	5/32 (4mm)	black, red, blue, orange	95	210	85	-1132
MUT-1016	5/64 (2mm)	5/32 (4mm)	clear, black, yellow, translucent blue	85	155	60	-1016
MUT-1012	1/16	1/8	clear, black, gray, white, red, translucent red, yellow, blue, green, translucent blue, orange	85	135	55	-1012

Coiled Polyurethane Tubing

DESCRIPTION

Coiled polyurethane tubing, available with one 16" straight tail and one 8" tail on ends. The maximum extended length is 10', with 8' of working length.

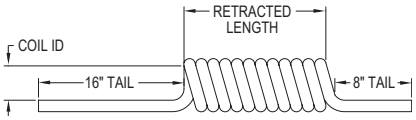
MATERIAL

Polyether based polyurethane, 85 durometer (shore A).

COLORS

Standard color is "clear". Please consult factory for other available colors.

NOTE: There is a 50 piece minimum order requirement for standard polyurethane coils. Custom configurations available. Higher minimum order requirements, and extended lead times may apply. Contact a Beswick applications engineer for additional details.



Part Number	ID	OD	Approx. ID of Coiled Section	Retracted Length	Working PSI @75° F	Working PSI @150° F
MUT-1332-C	1/8	1/4	3/4	8.0	125	50
MUT-1012-C	1/16	1/8	3/8	8.0	115	45

[1] Please consult factory for additional color options.

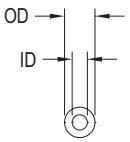
High Pressure Tubing

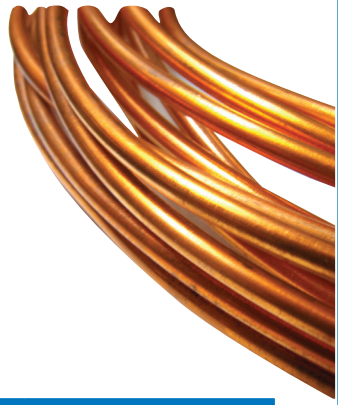
DESCRIPTION

High pressure tubing for use with compression fittings or push-to-connects.

MATERIAL

Copper, Nylon, or Teflon®.





Part Number	ID	OD	Material	Working PSI @75° F	Working PSI @150° F	Use with Beswick Fitting Number(s)
MCT-1018	1/16	1/8	copper	2400	2400	MCB-1018
MNT-1018	5/64	1/8	nylon	420	250	MCB-1018-1, MCN-1018
MTT-1018	1/16	1/8	Teflon , PTFE	400	350	MCB-1018-1, MCB-8T

Plastic Sleeve Tubing Clamp

DESCRIPTION

Plastic sleeve tubing clamp is designed to secure tubing to our barb fittings.

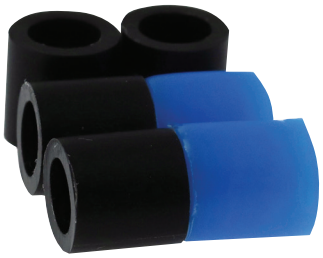
INSTALLATION

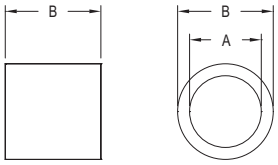
Place clamp over tubing, push tubing onto fitting and then slide clamp into position to secure tubing.

MATERIAL

Polyethylene

NOTE: Sold in bags of 100. Please consult factory for other available colors.





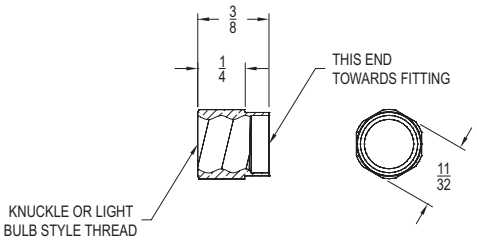
Part Number	Use with Tubing OD	A (Clamp ID)	B (Clamp OD)	Colors	Use with Beswick Tubing Number(s)
MPC-380	3/8	3/8	1/2	natural	MUT-1004
MPC-140	1/4	1/4	3/8	natural, black, yellow, blue, orange	MUT-1008, MUT-1332
MPC-316	3/16	3/16	5/16	black	
MPC-532	5/32	11/64	1/4	natural, black	MUT-1132-1, MUT-1016
MPC-6MM	4 mm	4 mm	6 mm	natural	MUT-1132-1, MUT-1016
MPC-180	1/8	1/8	3/16	natural, black	MUT-1012

Knuckle Thread Tubing Clamp

DESCRIPTION
Reusable knuckle or light bulb threaded tubing clamp.

INSTALLATION
Place clamp over 1/4" OD tubing, push tubing onto fitting and then screw clamp into position to secure tubing.

MATERIAL
Brass or 303 stainless steel.



Use with Tubing OD	Part Number Brass	Part Number 303 Stainless	ID	Use with Beswick Tubing Number(s)
1/4	MKC-140	MKC-140-303	17/64	MUT-1008, MUT-1332

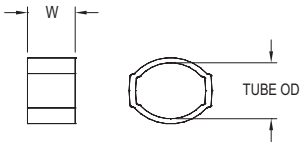
Two-Ear Style Clamp

DESCRIPTION
Two-ear style clamp.

INSTALLATION
Place clamp over tubing, push tubing onto fitting, slide clamp into position and crimp "ears" to secure tubing.

MATERIAL
Zinc plated steel or 304 stainless steel.

NOTE: Sold in bags of 25.



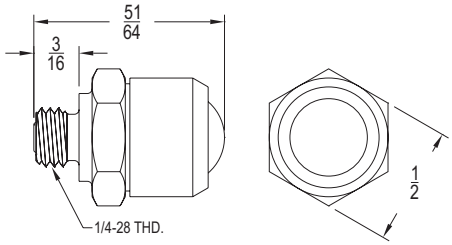
Use with Tubing OD	Part Number Steel	Part Number 304 Stainless	W	Use with Beswick Tubing Number (s)
5/16	MHC-516		9/32	
1/4	MHC-140	MHC-140-304	1/4	MUT-1008, MUT-1332
1/8 to 5/32	MHC-532		5/32	MUT-1012, MUT-1016

NEW Moisture Indicator - 1/4-28 Thread

DESCRIPTION
Miniature moisture indicating fitting designed to indicate moisture in a pneumatic line. The desiccant is type A commercial grade orange/yellow indicating silica gel. The gel is a bright orange-yellow color when dry, and turns to a green-black color when saturated with moisture. The gel can be regenerated by heating the fitting to 220 degrees Fahrenheit (maximum) for 4-8 hours.

MATERIAL
303 stainless steel body, 316 stainless steel filter element, acrylic viewing window, silica indicator.

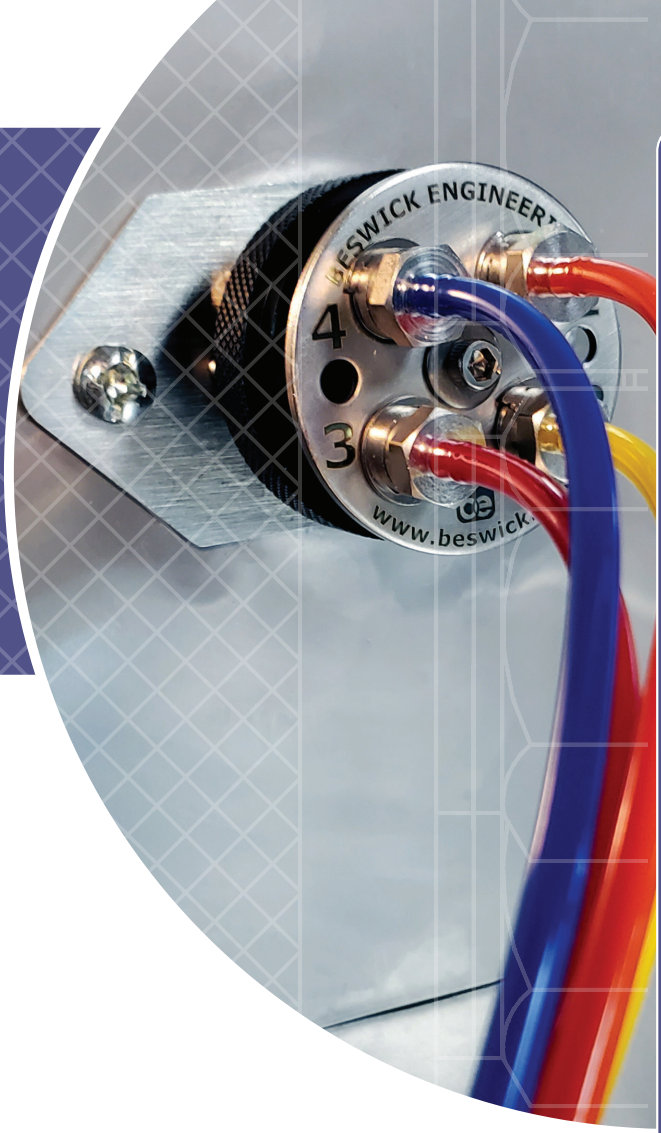
SEALS
One Fluorocarbon O-ring, OR-1428-V. Optional materials: Silicone, and Teflon®.



Part Number 303 Stainless
MI-14-3V

QUICK DISCONNECTS

Beswick snap type quick disconnects permit easy, leak free, tube connections and disconnections in a space saving package. Simply push the two halves together until they latch to connect, and slide the knurled sleeve on the internal end back to disconnect. Internal O-ring seals ensure leak tight operation. Multiple configurations with effective orifices ranging from 0.020 to 0.180 inch diameter are offered. If a quick release isn't required, then a non-latching design is available. The bayonet design is ideal for high pressure applications.



112 ULTRA-MINIATURE LATCHING QUICK DISCONNECTS

112 Single Shut-off – 1/4" Hex Body
114 Dry Break – 1/4" Hex Body

115 LATCHING QUICK DISCONNECTS

115 Single & Double Shut-Off - M5 Thread
116 Single Shut-off – 3/8" or 7/16" Hex Body
118 Double Shut-off – 3/8" or 7/16" Hex Body
120 Dry Break – 3/8" or 7/16" Hex Body

122 NON-LATCHING QUICK DISCONNECTS

122 Single Shut-off – 3/8" or 7/16" Hex Body
124 Dry Break – 3/8" or 7/16" Hex Body

126 HIGH PRESSURE BAYONET QUICK DISCONNECTS

126 Single Shut-off – 3/8" Hex Body
126 Dry Break – 3/8" Hex Body

127 HIGH FLOW QUICK DISCONNECTS

127 Single Shut-off – 1/2" Hex Body
128 Double Shut-off – 1/2" Hex Body
129 Dry Break – 9/16" Hex Body

130 MULTI-LINE LATCHING QUICK DISCONNECTS

130 4, 6, or 8 Line, with Single or Double Shut-Off

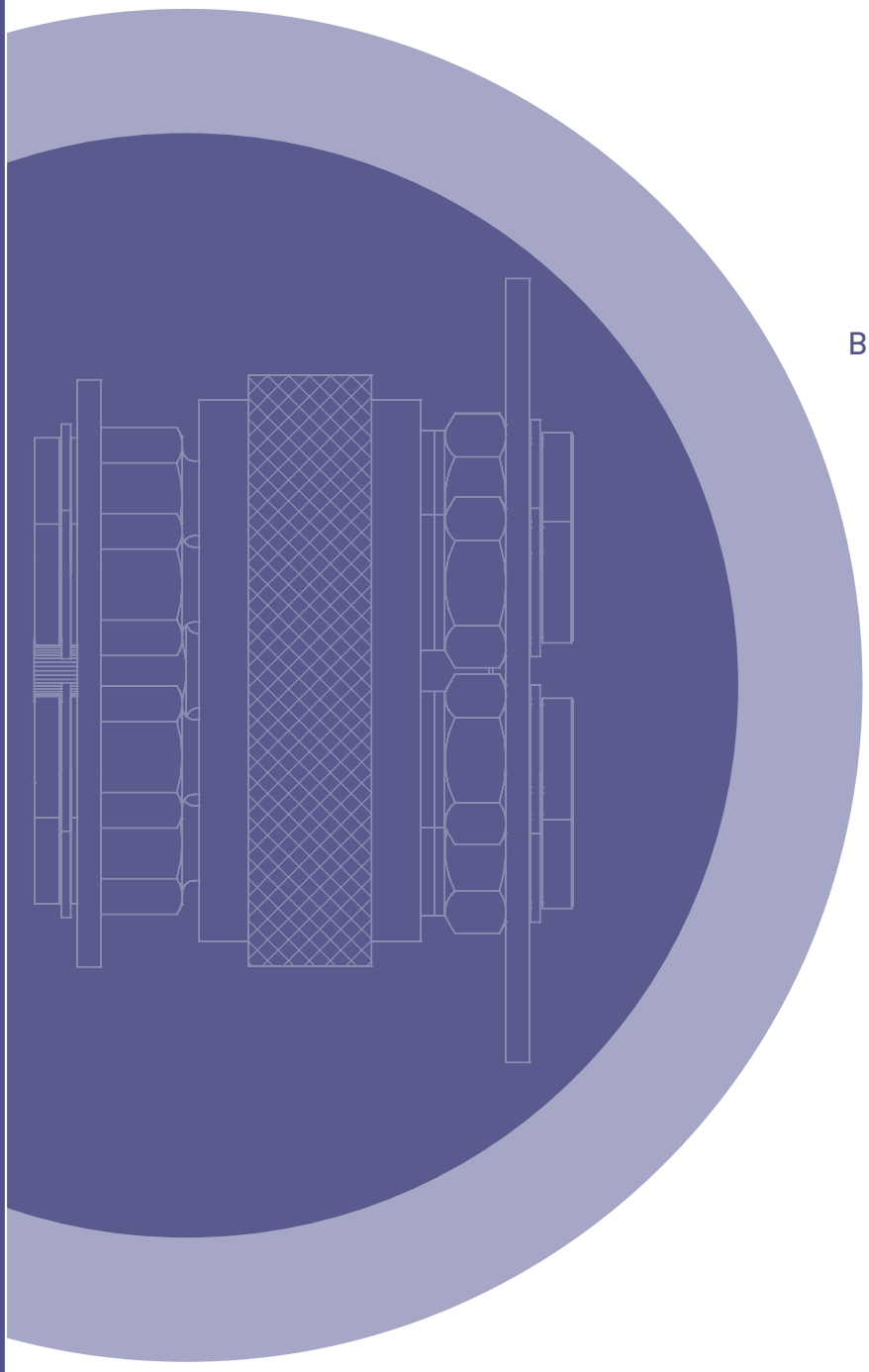
132 SCREW TYPE QUICK DISCONNECTS

132 Internal/Female Half
133 External/Male Half

NOTE: Photos in this catalog are not actual size, For dimensions, please refer to the schematic drawings.

Quick Disconnect Pressure Ratings

Unless otherwise noted, all quick disconnects are rated to a MAXIMUM PRESSURE RATING of 500 psig while connected, however Beswick Engineering does NOT recommend connecting or disconnecting our quick disconnects at pressures greater than 200 psig. The external half of Beswick double shut-off type quick disconnects can handle light vacuum, but is not intended for use under full vacuum. If you require a double shut-off quick disconnect that will seal under full vacuum, please contact the factory.



Beswick Engineering offers a wide selection of miniature quick disconnects. A general overview of the various options that are available to you is provided here. Contact the factory if you do not see what you are looking for, or if you need assistance selecting the right product for your application.

LATCHING STYLES

Snap Type
The snap type quick disconnects can be connected simply by pushing the two halves together. To disconnect, slide the knurled sleeve on the internal half back to release latching mechanism.

Screw Type
The two halves of a screw type quick disconnect thread together via a 5/16-24 thread.

Bayonet Type
Beswick's high pressure bayonet quick disconnects connect and disconnect by pushing the two halves together and twisting ¼ turn. This type is rated for pressures up to 3,000 psig while connected.

Non-Latching
Non-latching quick disconnects do not have a mechanism to hold the two halves together while connected. This can be useful when the releasing sleeve may be inaccessible, or when the customer wishes to integrate the quick disconnect directly into a mounting plate of their own design.

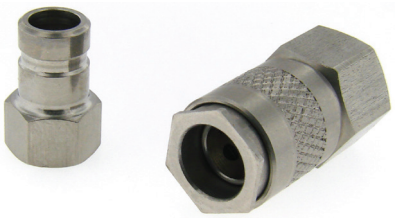
SHUT-OFF OPTIONS

Single Shut-Off
Single shut-off quick disconnects have a shut-off on the internal side only. This will prevent flow from this half when the fitting is disconnected. The external side does not contain a shut-off feature, and will not prevent flow when the two halves are disconnected.

Double Shut-Off
Double shut-off quick disconnects have shut-off valves within both the internal and external ends. These prevent fluid from passing through either side while disconnected. There is a fraction of a second during disconnection, when the shut-off mechanism in the external end is still open, but the fittings are no longer sealed to atmosphere. This can result in a slight amount of fluid spray or leakage from the external end, but only if disconnected under pressure.

Dry Break
These are similar to double shut-off models, except they are designed with reduced dead volume, and an improved level of sealing, which eliminates the possibility of external leakage during disconnection and minimizes the introduction of air into the system when the two ends are re-connected. These are ideal for applications where leakage cannot be tolerated (e.g. liquid cooling lines around electronic components).

No Shut-Off
As the name implies, this type of quick disconnect will not shut off to prevent flow on either side when disconnected. This option is typically used where more flow is desired, and a shut-off feature is not required.



OTHER OPTIONS

High Flow
Designed to allow maximum flow, while still ensuring a very small outer envelope.

Multi-line
4, 6, and 8 line configurations are available for simultaneous connection and disconnection of multiple lines.

Important Note: An internal AND external half of the same type is necessary for the QDC assembly to work properly (see above). Single shut-off, double shut-off, and dry break pins cannot be mixed on the same assembly.

Single Line, Single Shut-off, M3 Thread, Quick Disconnects, Internal

DESCRIPTION
Ultra miniature M3 quick disconnect with shut-off mechanism in the internal end. No shut off mechanism is provided in the external end. Assembly locks together. It releases when the sleeve is pulled back.

MAXIMUM PRESSURE
250 psig.

MATERIAL
Brass or 303 stainless steel.

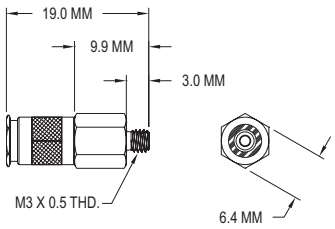
SEALS
Buna-N O-rings. Optional materials: EPDM and Fluorocarbon.
See page 11.

PART DESIGNATION INTERNAL/FEMALE HALF:
QM3I-AAA-BBB-CD
Replace each underlined letter with a code. All fields are optional.

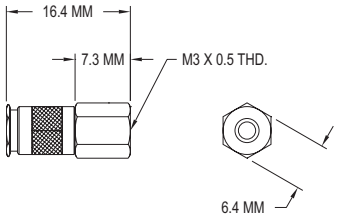
Connection Style	Code	Description
AAA		M3x0.5 internal thread (No Designation)[1]
	M3E	M3x0.5 external thread
Body Material		
BBB		Brass (No Designation)[1]
	303	303 Stainless Steel
Seal Material		
C		Buna-N (No Designation)[1]
	E	EPDM
	V	Fluorocarbon
Special Options		
D	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Standard configuration is M3 internal thread, brass body, and Buna-N seal. No code needed to specify these options.

QM3I-M3E-303



QM3I



Single Line, Single Shut-off, M3 Thread, Quick Disconnects, External

DESCRIPTION
Ultra miniature M3 quick disconnect with shut-off mechanism in the internal end. No shut off mechanism is provided in the external end. Assembly locks together. It releases when the sleeve is pulled back.

MAXIMUM PRESSURE
250 psig.

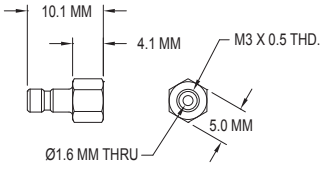
MATERIAL
303 stainless steel.

SEALS
Buna-N O-rings. Optional materials: EPDM and Fluorocarbon. See page 11.

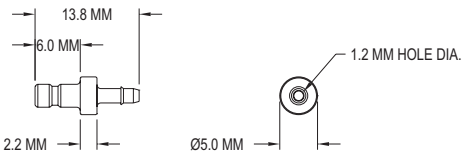
PART DESIGNATION EXTERNAL/MALE HALF:
QM3E-AAAA-BC
Replace each underlined letter with a code. All fields are optional.

Connection Style	Code	Description
AAAA		M3x0.5 internal thread (No Designation)[1]
	M3E	M3x0.5 external thread
	1012	Barb for 1/16" ID tube[2]
	1332	Barb for 1/8" ID tube[2]
Seal Material		
B		Buna-N (No Designation)[1]
	E	EPDM
	V	Fluorocarbon
Special Options		
C	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

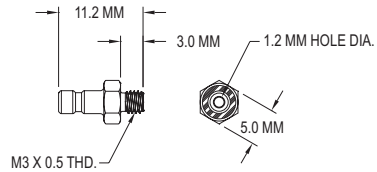
1 Standard configuration is M3 internal thread, with no O-ring. No code needed to specify these options.
2 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material. Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.



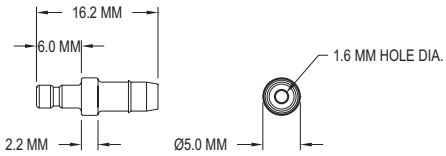
QM3E



QM3E-1012



QM3E-M3E



QM3E-1332

NEW Single Line, Dry Break, M3 Thread, Quick Disconnects

DESCRIPTION

Ultra miniature M3 quick disconnect with shut-off mechanism in both the internal and external end. The dry break connects without leakage or fluid spray. Additionally, the design minimizes dead volume (the space between the internal and external ends when connected) to essentially eliminate any leakage when disconnecting.

MAXIMUM SPILL VOLUME

Approximately 0.06 ml upon disconnection.

MATERIAL

303 stainless steel.

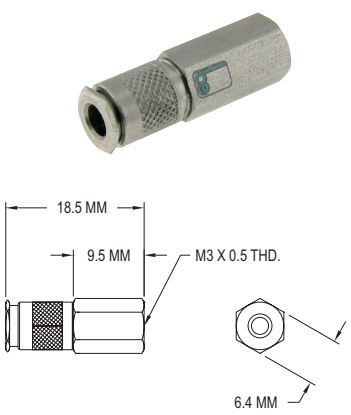
SEALS

Buna-N O-rings standard. Optional materials: EPDM and Fluorocarbon. See page 11.

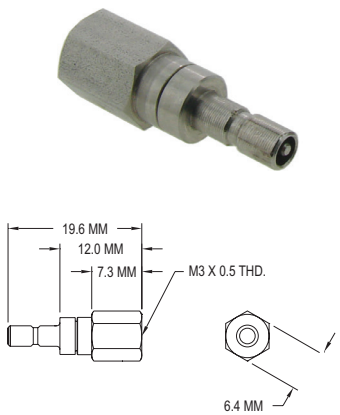
PART DESIGNATION: QDM3A-3BC
Replace each underlined letter with a code. A must be filled in. B and C are extra available options.

Half of Assembly	Code	Description
A	I	Internal/Female Half, to M3x0.5 female thread
	E	External/Male Half, to M3x0.5 female thread
Body Material		
B		Buna-N (No Designation)[1]
	E	EPDM
	V	Fluorocarbon
Special Options		
C	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Standard configuration is Buna-N seal. No code needed to specify this option.



QDM3I-3



QDM3E-3

Single Line, Single and Double Shut-off, M5 Thread, Quick Disconnects

DESCRIPTION

M5 quick disconnect with either a single or double shut-off. Features a locking sleeve that permits one hand connecting or disconnecting. This allows for rapid set up and break down of fluid lines and simplifies component replacement.

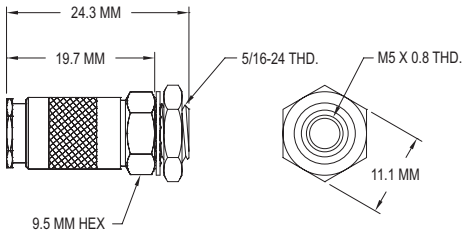
MATERIAL

316 stainless steel body. ENP brass nut and 410 stainless steel washer on panel mount configurations.

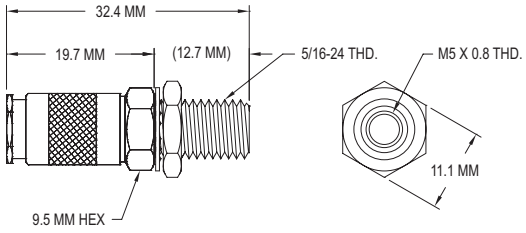
SEALS

Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, Silicone, FFKM and Fluorosilicone. See page 11.

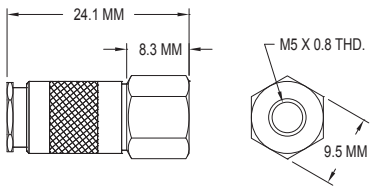
Part Number Single Shut-off 316 SS [1]	Part Number Double Shut-off 316 SS [2]	Mating Half	Connection
Q5DC-101-I-PM-316	Q5DC-101-I-DS-PM-316	internal half	M5 int & short panel mount (11/64") thread
Q5DC-101-I-2PM-316	Q5DC-101-I-DS-2PM-316	internal half	M5 int & long panel mount (1/2") thread
	Q5DC-101-I-DS-316	internal half	M5 internal thread
	Q5EDS-MNM5M5-316	external half	M5 external thread
	Q5EDS-EB10M5-1-316	external half	M5 internal thread
	Q5EDS-2PM-316	external half	M5 int & long panel mount (1/2") thread



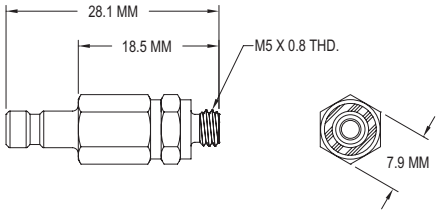
Q5DC-101-I-DS-PM-316



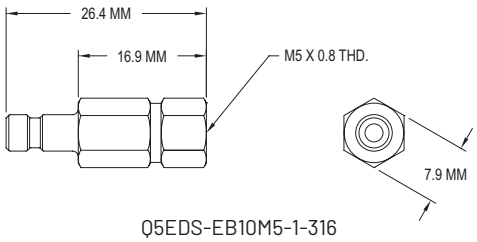
Q5DC-101-I-DS-2PM-316



Q5DC-101-I-DS-316



Q5EDS-MNM5M5-316



Q5EDS-EB10M5-1-316

[1] Compatible with any of the single shut-off external pins on page 117
[2] Compatible with any of the double shut-off mating halves on page 118 and 119.

Single Line, Single Shut-off, Latching Quick Disconnect, Internal End

For use with single line single shut-off externals on next page

DESCRIPTION

Internal end of a snap-type quick disconnect assembly with an automatic shut-off.

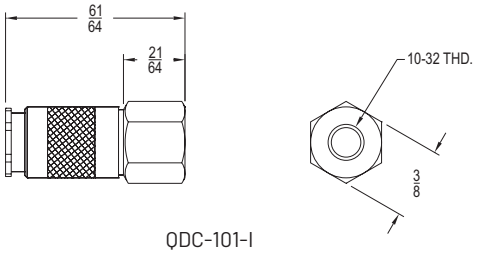
MATERIAL

Brass, 303 or 316 stainless steel body, 316 stainless steel ball bearings and 302 or 316 stainless steel springs. ENP brass nut, 410 stainless steel washers on panel mount configurations.

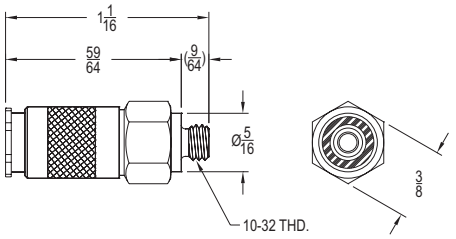
SEALS

Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, Silicone, FFKM and Fluorosilicone. See page 11.

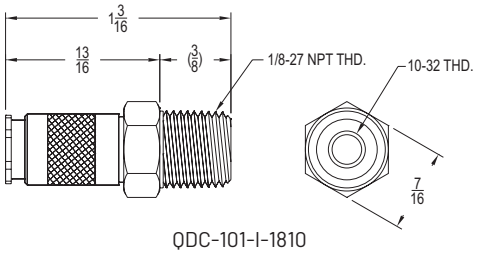
Note: Can also be ordered without shut-off feature. Contact factory for details.



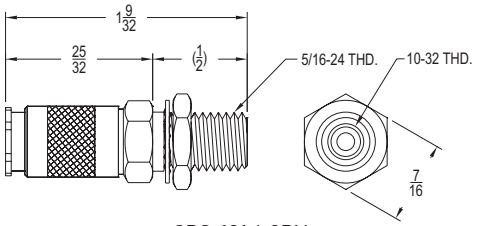
QDC-101-I



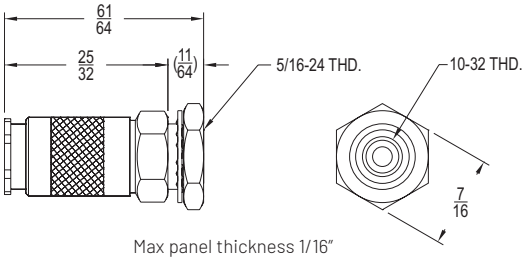
QDC-101-I-10



QDC-101-I-1810

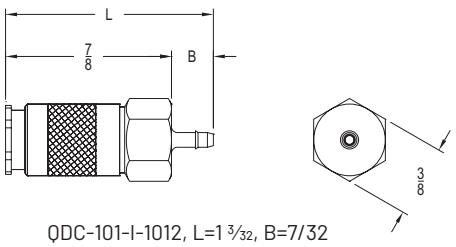


QDC-101-I-2PM



Max panel thickness 1/16"

QDC-101-I-PM



QDC-101-I-1012, L=1 3/32, B=7/32
QDC-101-I-1016, L=1 3/32, B=7/32
QDC-101-I-1132, L=1 3/32, B=7/32
QDC-101-I-1332, L=1 3/16, B=5/16

PART DESIGNATION: QDC-101-I-A-B-C-D
Replace each underlined letter with a code if required.
All fields are optional.

Connection Style	Code	Description
A		10-32 internal thread (No Designation)[2]
	10	10-32 external thread
	1810	1/8" NPT ext. thread, 10-32 int. thread
	1012	1/16" ID tubing barb [1]
	1016	5/64" (2mm) ID tubing barb [1]
	1132	3/32" ID tubing barb [1]
	1332	1/8" ID tubing barb [1]
	PM	Panel mount thread (11/64" long)
	2PM	Long panel mount thread (1/2" long)
	2PMS	Long panel mount thread w/ O-ring seal
Body Material		
B		Brass (No Designation) [2]
	303	303 Stainless Steel
	316	316 Stainless Steel [3]
Seal Material		
C		Buna-N (No Designation) [2]
	V	Fluorocarbon
	E	EPDM
	S	Silicone
	FS	Fluorosilicone
	F	FFKM [4]
Special Options		
D	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material. Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.
2 Standard connection style is 10-32 internal thread. Standard body material is brass and standard seal material is Buna-N. No code is needed to specify these options.
3 Not all body styles are stocked in 316 SS. Consult factory for availability.
4 FFKM seals are special order, and may come with a minimum order requirement or extended lead time.

Single Line, Single Shut-off, Latching Quick Disconnect, External End

For use with single line single shut-off internals on previous page

DESCRIPTION

External end of snap-type quick disconnect for use with single shut-off internal end. No shut-off provided in external end. Specify double-shut-off quick disconnects if shut-off is required on both ends.

MATERIAL

303 or 316 stainless steel. ENP brass nut, 410 stainless steel washers on panel mount configurations.

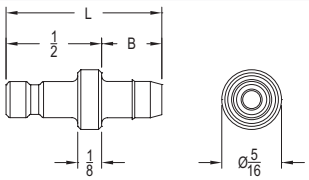
SEALS

QDC-101-E-10 and QDC-101-E-2PMS models only: One Buna-N O-ring. Optional materials: EPDM, Fluorocarbon, Silicone,Teflon®, TFE/P, FFKM, Fluorosilicone and Chloroprene. See page 11. Other models do not have O-rings.

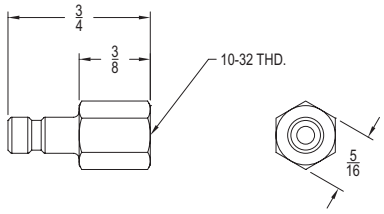
PART DESIGNATION: QDC-10A-B-C-D
Replace each underlined letter with a code if required.
A must be filled in. B, C and D are extra available options.

Connection Style	Code	Description
A	1-E	10-32 internal thread
	1-E-10	10-32 external thread
	1-E-1810	1/8" NPT ext. thread, 10-32 int. thread
	2-E-1012	1/16" ID tubing barb [1]
	2-E-1016	5/64" (2mm) ID tubing barb [1]
	2-E-1132	3/32" ID tubing barb [1]
	2-E-1332	1/8" ID tubing barb [1]
	2-E-1008-2	(.17-3/16)" ID tubing barb [1]
	1-E-PM	Panel mount thread (11/64" long)
	1-E-2PM	Long panel mount thread (1/2" long)
	1-E-2PMS	Long panel mount thread w/ O-ring seal
	2-E-CB18	1/8" OD tube compression fitting
Body Material		
B		303 Stainless Steel (No Designation) [2]
	316	316 Stainless Steel [3]
Seal Material		
C		Buna-N or No O-ring (No Designation) [2]
	V	Fluorocarbon
	E	EPDM
	S	Silicone
	FS	Fluorosilicone
	F	FFKM [4]
Special Options		
D	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

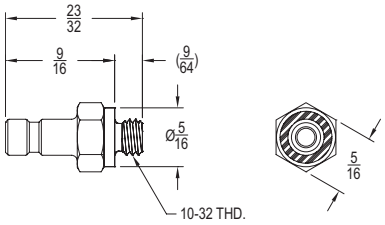
1 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material. Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.
2 Standard body material is 303 SS and standard seal material is Buna-N or no O-ring. No code is needed to specify these options.
3 Not all body styles are stocked in 316 SS. Consult factory for availability.
4 FFKM seals are special order, and may come with a minimum order requirement or extended lead time.



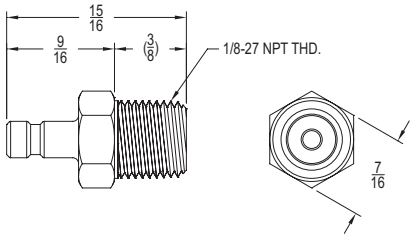
QDC-102-E-1012, L= 23/32, B= 7/32
QDC-102-E-1016, L= 23/32, B= 7/32
QDC-102-E-1132, L= 23/32, B= 7/32
QDC-102-E-1332, L= 13/16, B= 5/16
QDC-102-E-1008-2, L=13/16, B= 5/16



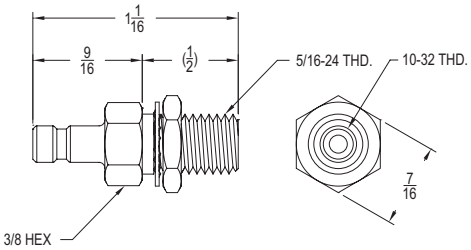
QDC-101-E



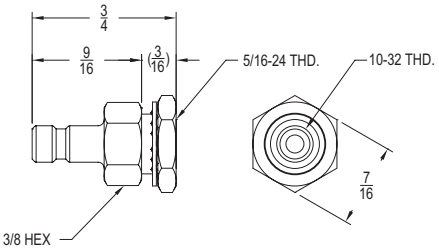
QDC-101-E-10



QDC-101-E-1810

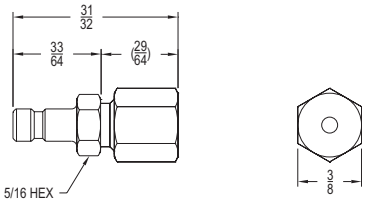


QDC-101-E-2PM



Max panel thickness 1/16"

QDC-101-E-PM



QDC-102-E-CB18

Single Line, Double Shut-off, Latching Quick Disconnect, Internal End

For use with single line double shut-off externals on next page

DESCRIPTION

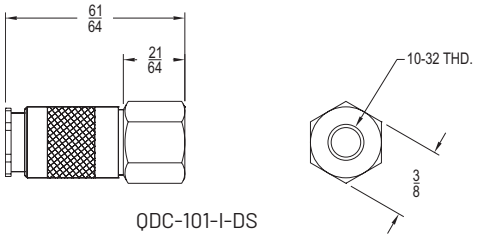
Internal end of a snap-type quick disconnect assembly with an automatic shut-off.

MATERIAL

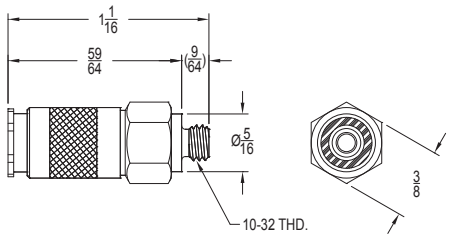
Brass, 303 or 316 stainless steel body, 316 stainless steel ball bearings and 302 or 316 stainless steel springs. ENP brass nut, 410 stainless steel washers on panel mount configurations.

SEALS

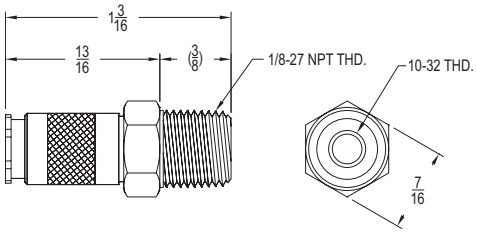
Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, Silicone, FFKM and Fluorosilicone. See page 11.



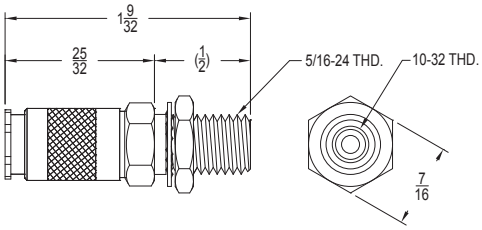
QDC-101-I-DS



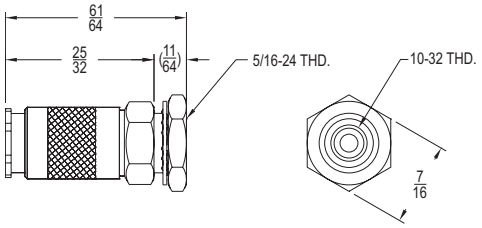
QDC-101-I-DS-10



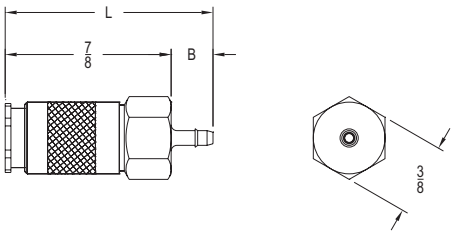
QDC-101-I-DS-1810



QDC-101-I-DS-2PM



Max panel thickness 1/16"
QDC-101-I-DS-PM



QDC-101-I-DS-1012, L=1 3/32, B=7/32
QDC-101-I-DS-1016, L=1 3/32, B=7/32
QDC-101-I-DS-1132, L= 1 3/32, B=7/32
QDC-101-I-DS-1332, L=1 3/16, B=5/16

PART DESIGNATION: QDC-101-I-DS-A-B-C-D
Replace each underlined letter with a code if required.
All fields are optional.

Connection Style	Code	Description
A		10-32 internal thread (No Designation) [2]
	10	10-32 external thread
	1810	1/8" NPT ext. thread, 10-32 int. thread
	1012	1/16" ID tubing barb [1]
	1016	5/64" (2mm) ID tubing barb [1]
	1132	3/32" ID tubing barb [1]
	1332	1/8" ID tubing barb [1]
	PM	Panel mount thread (11/64" long)
	2PM	Long panel mount thread (1/2" long)
	2PMS	Long panel mount thread w/ O-ring seal
Body Material		
B		Brass (No Designation) [2]
	303	303 Stainless Steel
	316	316 Stainless Steel [3]
Seal Material		
C		Buna-N (No Designation) [2]
	V	Fluorocarbon
	E	EPDM
	S	Silicone
	FS	Fluorosilicone
	F	FFKM [4]
Special Options		
D	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material. Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.
2 Standard connection style is 10-32 internal thread. Standard body material is brass and standard seal material is Buna-N. No code is needed to specify these options.
3 Not all body styles are stocked in 316 SS. Consult factory for availability.
4 FFKM seals are special order, and may come with a minimum order requirement or extended lead time.

Single Line, Double Shut-off, Latching Quick Disconnect, External End

For use with single line double shut-off internals on previous page

DESCRIPTION

External end of a snap-type quick disconnect assembly with an automatic shut-off.

MATERIAL

303 or 316 stainless steel body. ENP brass nut, 410 stainless steel washers on panel mount configurations.

SEALS

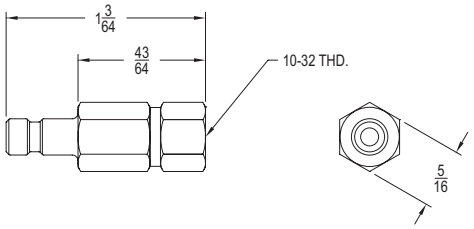
Buna-N O-ring in external end. Optional materials: EPDM, Fluorocarbon, Silicone, FFKM, and Fluorosilicone. See page 11.

NOTE: Additional fittings can be made with the double shut-off feature. Consult factory for details.

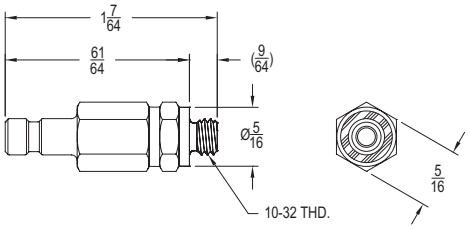
PART DESIGNATION: QDC-101-E-DS-A-B-C-D
Replace each underlined letter with a code if required.
A must be filled in. B, C and D are extra available options.

Connection Style	Code	Description
A	EB1	10-32 internal thread
	MN10	10-32 external thread
	1810	1/8" NPT external thread, 10-32 internal thread
	1012	1/16" ID tubing barb [1]
	1016	5/64" (2mm) ID tubing barb [1]
	1132	3/32" ID tubing barb [1]
	1332	1/8" ID tubing barb [1]
	1008-1	(.17-3/16)" ID tubing barb [1]
	2PM	Long panel mount thread (1/2" long)
	2PMS	Long panel mount thread w/ O-ring seal
Body Material		
B		303 SS QDC and brass fitting or no fitting [2]
	303	303 SS QDC and fitting
	316	316 SS QDC and fitting
Seal Material		
C		Buna-N (No Designation) [2]
	V	Fluorocarbon
	E	EPDM
	S	Silicone
	FS	Fluorosilicone
	F	FFKM [3]
Special Options		
D	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

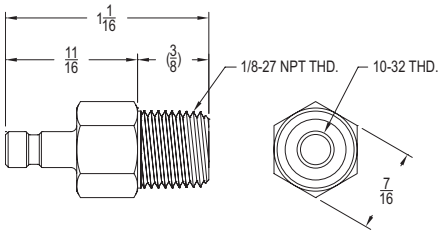
1 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material. Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.
2 Standard body material is 303 SS QDC with brass fitting (where applicable), and standard seal material is Buna-N. No code is needed to specify these options.
3 FFKM seals are special order, and may come with a minimum order requirement or extended lead time.



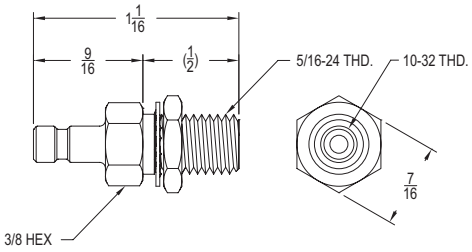
QDC-101-E-DS-EB1



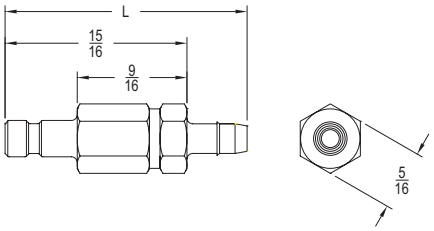
QDC-101-E-DS-MN10



QDC-101-E-DS-1810



QDC-101-E-DS-2PM



QDC-101-E-DS-1012, L=1 5/32
QDC-101-E-DS-1016, L=1 5/32
QDC-101-E-DS-1132, L=1 5/32
QDC-101-E-DS-1332, L=1 1/4
QDC-101-E-DS-1008-1, L=1 13/32

Single Line, Dry Break, Latching Quick Disconnects, Internal End

For use with single line dry break externals on next page

DESCRIPTION

Internal end of a snap-type dry break quick disconnect. The dry break quick disconnect functions similar to a double shut-off quick disconnect, however it provides a higher level of sealing during connection and disconnection. The dry break connects without fluid spray. Additionally, the design minimizes dead volume (the space between the internal and external ends when connected) to essentially eliminate any leakage when disconnecting.

MAXIMUM SPILL VOLUME

Approximately 0.2 ml upon disconnection

MATERIAL

303 stainless steel. ENP brass nut, 410 stainless steel washers on panel mount configurations.

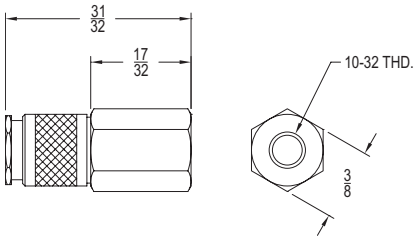
SEALS

Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, FFKM, and Silicone. See page 11.

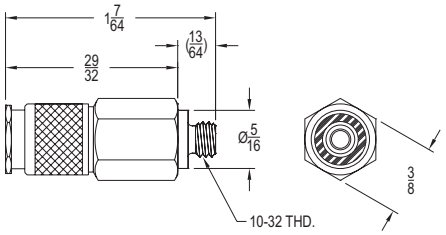
PART DESIGNATION: Internal/Female Half
QDI-AA-BBB-CD
Replace each underlined letter with a code.
BBB must be filled in. AA, C, and D are extra available options.

Connection Style	Code	Description
AA		10-32 internal thread (No Designation)[1]
	10	10-32 external thread
	PM	Panel Mount Thread (11/64" Long)
Body Material		
BBB	303	303 Stainless Steel
	316	316 Stainless Steel
Seal Material		
C		Buna-N (No Designation) [1]
	E	EPDM
	V	Fluorocarbon
	S	Silicone[2]
Special Options		
D	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

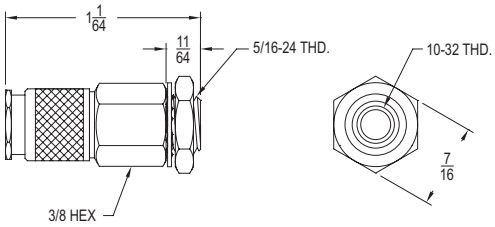
1 Standard configuration is 10-32 internal thread and Buna-N seal. No code needed to specify these options.
2 Silicone seals should only be selected if connection/disconnection will be very infrequent.



QDI-303



QDI-10-303



Max panel thickness 1/16"
QDI-PM-303

Single Line, Dry Break, Latching Quick Disconnects, External End

For use with single line dry break internals on previous page

DESCRIPTION

External end of a snap-type dry break quick disconnect. The dry break quick disconnect functions similar to a double shut-off quick disconnect, however it provides a higher level of sealing during connection and disconnection. The dry break connects without fluid spray. Additionally, the design minimizes dead volume (the space between the internal and external ends when connected) to essentially eliminate any leakage when disconnecting.

MAXIMUM SPILL VOLUME

Approximately 0.2 ml upon disconnection

MATERIAL

303 stainless steel. ENP brass nut, 410 stainless steel washers on panel mount configurations.

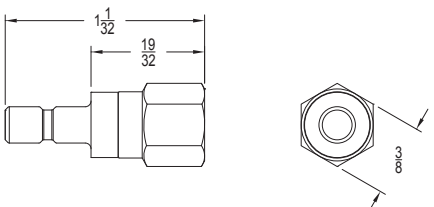
SEALS

Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, FFKM, and Silicone. See page 11.

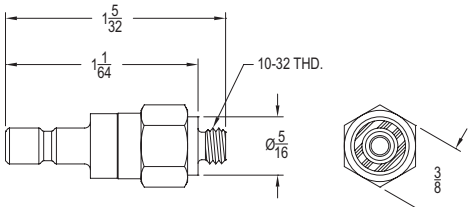
PART DESIGNATION: External/Male Half
QDE-AAAA-BBB-CD
Replace each underlined letter with a code. All fields are optional

Connection Style	Code	Description
AAAA		10-32 internal thread (No Designation)[1]
	10	10-32 external thread
	1810	1/8" NPT ext. thread, 10-32 int. thread
	1012	Barb for 1/16" ID tube[2]
	1016	Barb for 5/64" (2mm) ID tube[2]
	1132	Barb for 3/32" ID tube[2]
	1332	Barb for 1/8" ID tube[2]
	PM	Panel Mount Thread (11/64" Long)
	2PM	Panel Mount Thread (1/2" Long)
Body Material		
BBB		303 Stainless Steel (No Designation)[1]
	316	316 Stainless Steel
Seal Material		
C		Buna-N (No Designation)[1]
	E	EPDM
	V	Fluorocarbon
	S	Silicone[3]
Special Options		
D	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

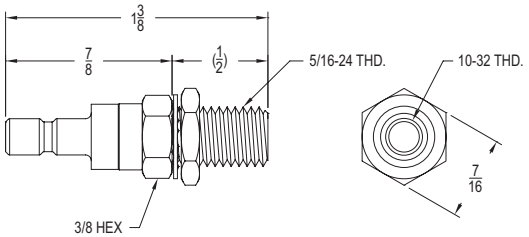
1 Standard configuration is 10-32 internal thread, 303 Stainless Steel, and Buna-N seal. No code needed to specify these options.
2 Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material. Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.
3 Silicone seals should only be selected if connection/disconnection will be very infrequent.



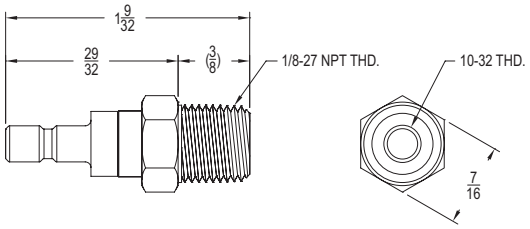
QDE



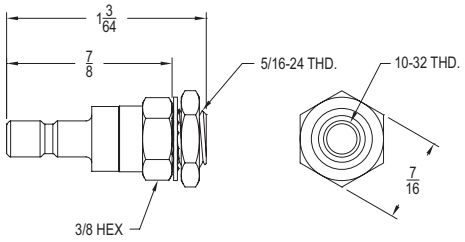
QDE-10



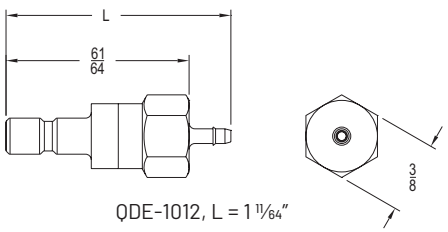
QDE-2PM



QDE-1810



Max panel thickness 1/16"
QDE-PM



QDE-1012, L = 1 11/64"
QDE-1016, L = 1 11/64"
QDE-1132, L = 1 11/64"
QDE-1332, L = 1 17/64"

NON-LATCHING QUICK DISCONNECTS WITH 3/8" OR 7/16" HEX BODY

NEW

Single Line, Single Shut-Off, Non-Latching Quick Disconnects, Internal End

For use with single line single shut-off externals on next page

DESCRIPTION

Internal half of a non-latching quick disconnect assembly with automatic shut-off, for use with single shut-off external end. Non-latching versions of our single shut-off quick disconnects are useful for applications where multiple disconnects will be used in close proximity, when customer would like to use their own latching mechanism, or when the disconnect will not be readily accessible in service.

MAXIMUM PRESSURE RATING

500 psig while connected. 200 psig while connecting or disconnecting.

MATERIAL

303 stainless steel body. 302 stainless steel springs. ENP brass nut and 410 stainless steel washer on panel mount configurations.

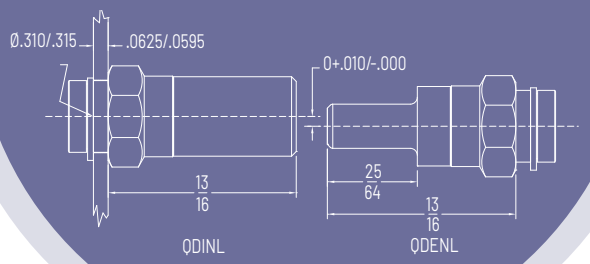
SEALS

Buna-N O-rings standard. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.

SPOTLIGHT

Installation Detail

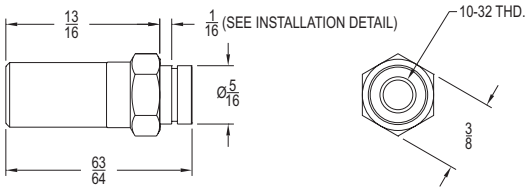
We recommend allowing at least one end of the non-latching disconnect to float, so that the two halves can self-align during connection. See the recommended installation detail provided below:



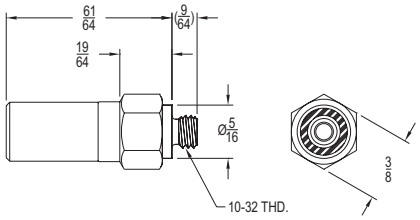
PART DESIGNATION INTERNAL/FEMALE HALF: Q1INL-AAA-BB-CCD
Replace each underlined letter with a code.
BB must be filled in. AAA, CC, and D are extra available options.

Connection Style	Code	Description
AAA		Floating Mutli-Line Cap with 10-32 internal thread & C-Clip (No Designation)[1]
	10I	10-32 Internal Thread
	10E	10-32 External Thread
	PM	Panel Mount Thread (11/64" Long)
	2PM	Panel Mount Thread (1/2" Long)
Body Material		
BB	3	303 Stainless Steel
	A3	303 Stainless Steel w/ Low Friction Spindle
Seal Material		
CC		Buna (No Designation)[1]
	BL	Self Lubricated Buna
	E	EPDM
	EL	Self Lubricated EPDM
	V	Fluorocarbon
	VL	Self Lubricated Fluorocarbon
	S	Silicone[2]
	FS	Fluorosilicone
	F	FFKM[3]
Special Options		
D	I	Instrument Cleaned
	K	Krytox Lubricant
	IK	Instrument Cleaned & Krytox Lubricant

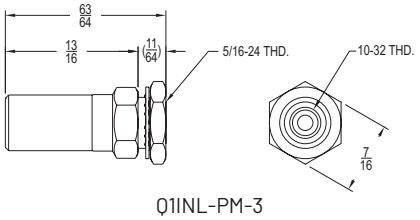
1 Standard configuration is 10-32 internal threaded floating cap, and Buna-N seal. No code needed to specify these options. Floating cap is highly recommended on at least one half of the disconnect to allow for self alignment upon connection.
2 Silicone seals should only be selected if connection/disconnection will be very infrequent.
3 FFKM seals are special order, and may come with minimum order requirement or extended lead time.



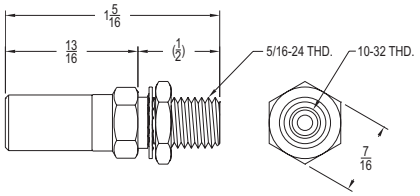
Q1INL-3



Q1INL-10E-3



Q1INL-PM-3



Q1INL-2PM-3

NEW

Single Line, Single Shut-Off, Non-Latching Quick Disconnects, External End

For use with single line Single Shut-Off internals on previous page

DESCRIPTION

External half of a non-latching quick disconnect assembly, for use with single shut-off internal end. No shut-off provided in external end. Non-latching versions of our single shut-off quick disconnects are useful for applications where multiple disconnects will be used in close proximity, when customer would like to use their own latching mechanism, or when the disconnect will not be readily accessible in service.

MAXIMUM PRESSURE RATING

500 psig while connected. 200 psig while connecting or disconnecting.

MATERIAL

303 stainless steel body. 302 stainless steel springs. ENP brass nut and 410 stainless steel washer on panel mount configurations.

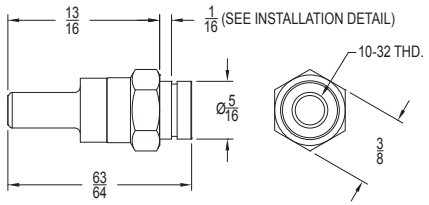
SEALS

Buna-N O-rings standard. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.

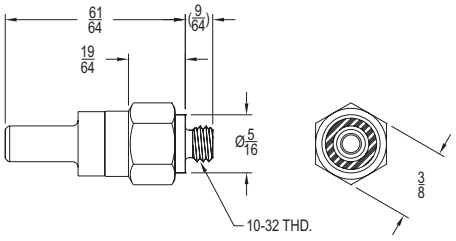
PART DESIGNATION EXTERNAL/MALE HALF: Q1ENL-AAA-B-CCD
Replace each underlined letter with a code.
B must be filled in. AAA, CC, and D, are extra available options.

Connection Style	Code	Description
AAA		Floating Mutli-Line Cap with 10-32 internal thread & C-Clip (No Designation)[1]
	10I	10-32 Internal Thread
	10E	10-32 External Thread
	PM	Panel Mount Thread (11/64" Long)
	2PM	Panel Mount Thread (1/2" Long)
Body Material		
B	3	303 Stainless Steel
Seal Material		
CC		Buna (No Designation)[1]
	E	EPDM
	V	Fluorocarbon
	S	Silicone[2]
	FS	Fluorosilicone
	F	FFKM[3]
Special Options		
D	I	Instrument Cleaned
	K	Krytox Lubricant
	IK	Instrument Cleaned & Krytox Lubricant

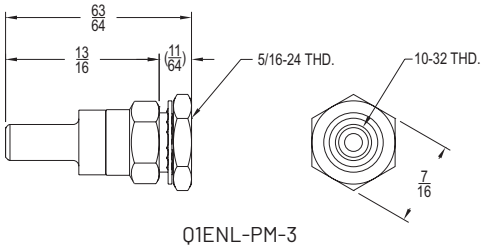
1 Standard configuration is 10-32 internal threaded floating cap, and Buna-N seal. No code needed to specify these options. Floating cap is highly recommended on at least one half of the disconnect to allow for self alignment upon connection.
2 Silicone seals should only be selected if connection/disconnection will be very infrequent.
3 FFKM seals are special order, and may come with minimum order requirement or extended lead time.



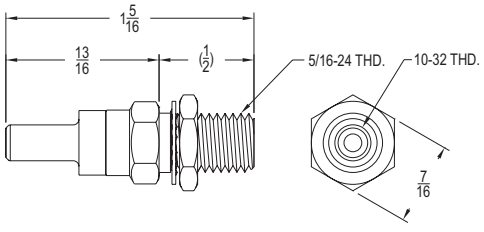
Q1ENL-3



Q1ENL-10E-3



Q1ENL-PM-3



Q1ENL-2PM-3

NEW

Single Line, Non-Latching Dry Break Quick Disconnects, Internal End

For use with single line dry break externals on next page

DESCRIPTION

Internal half of a non-latching dry break quick disconnect assembly with automatic shut-off, for use with dry break external end. Non-latching versions of our dry break quick disconnects are useful for applications where multiple disconnects will be used in close proximity, when customer would like to use their own latching mechanism, or when the disconnect will not be readily accessible in service.

MAXIMUM PRESSURE RATING

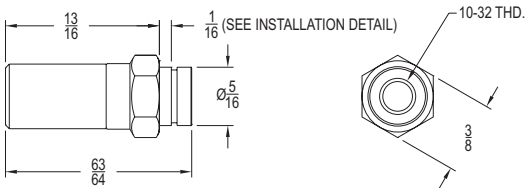
500 psig while connected. 200 psig while connecting or disconnecting.

MATERIAL

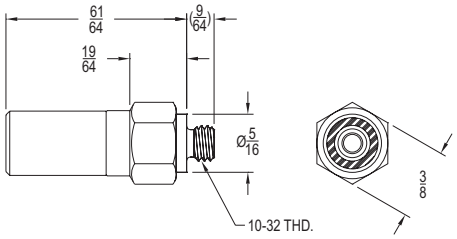
303 stainless steel body. 302 stainless steel springs. ENP brass nut and 410 stainless steel washer on panel mount configurations.

SEALS

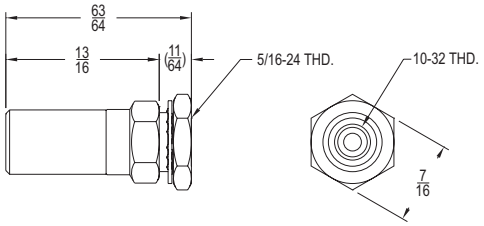
Buna-N O-rings standard. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.



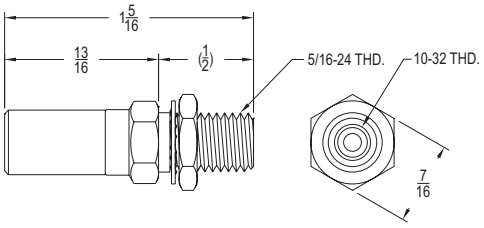
QDINL-3



QDINL-10E-3



QDINL-PM-3



QDINL-2PM-3

PART DESIGNATION INTERNAL/FEMALE HALF: QDINL-AAA-BB-CCD
Replace each underlined letter with a code.
BB must be filled in. AAA, CC, and D are extra available options.

Connection Style	Code	Description
AAA		Floating Mutli-Line Cap with 10-32 internal thread & C-Clip (No Designation)[1]
	10I	10-32 Internal Thread
	10E	10-32 External Thread
	PM	Panel Mount Thread (11/64" Long)
	2PM	Panel Mount Thread (1/2" Long)
Body Material		
BB	3	303 Stainless Steel
	A3	303 Stainless Steel w/ Low Friction Spindle
Seal Material		
CC		Buna (No Designation)[1]
	BL	Self Lubricated Buna
	E	EPDM
	EL	Self Lubricated EPDM
	V	Fluorocarbon
	VL	Self Lubricated Fluorocarbon
	S	Silicone[2]
	FS	Fluorosilicone
	F	FFKM[3]
Special Options		
D	I	Instrument Cleaned
	K	Krytox Lubricant
	IK	Instrument Cleaned & Krytox Lubricant

1 Standard configuration is 10-32 internal threaded floating cap, and Buna-N seal. No code needed to specify these options. Floating cap is highly recommended on at least one half of the disconnect to allow for self alignment upon connection.
2 Silicone seals should only be selected if connection/disconnection will be very infrequent.
3 FFKM seals are special order, and may come with minimum order requirement or extended lead time.

NEW

Single Line, Non-Latching Dry Break Quick Disconnects, External End

For use with single line dry break internals on previous page

DESCRIPTION

External half of a non-latching dry break quick disconnect assembly with automatic shut-off, for use with dry break internal end. Non-latching versions of our dry break quick disconnects are useful for applications where multiple disconnects will be used in close proximity, when customer would like to use their own latching mechanism, or when the disconnect will not be readily accessible in service.

MAXIMUM PRESSURE RATING

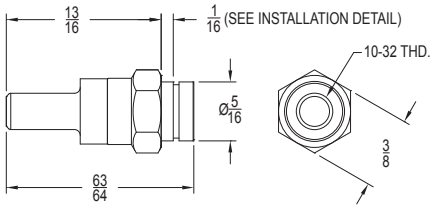
500 psig while connected. 200 psig while connecting or disconnecting.

MATERIAL

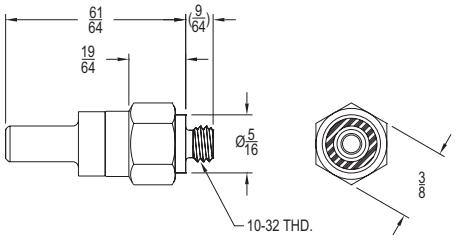
303 stainless steel body. 302 stainless steel springs. ENP brass nut and 410 stainless steel washer on panel mount configurations.

SEALS

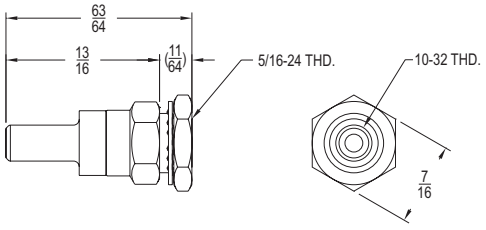
Buna-N O-rings standard. Optional materials: EPDM, Fluorocarbon, and Silicone. See page 11.



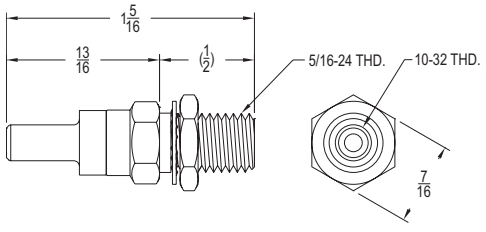
QDENL-3



QDENL-10E-3



QDENL-PM-3



QDENL-2PM-3

PART DESIGNATION EXTERNAL/MALE HALF: QDENL-AA-B-CCD
Replace each underlined letter with a code.
B must be filled in. AAA, CC, and D are extra available options.

Connection Style	Code	Description
AAA		Floating Mutli-Line Cap with 10-32 internal thread & C-Clip (No Designation)[1]
	10I	10-32 Internal Thread
	10E	10-32 External Thread
	PM	Panel Mount Thread (11/64" Long)
	2PM	Panel Mount Thread (1/2" Long)
Body Material		
B	3	303 Stainless Steel
Seal Material		
CC		Buna (No Designation)[1]
	E	EPDM
	V	Fluorocarbon
	S	Silicone[2]
	FS	Fluorosilicone
	F	FFKM[3]
Special Options		
D	I	Instrument Cleaned
	K	Krytox Lubricant
	IK	Instrument Cleaned & Krytox Lubricant

1 Standard configuration is 10-32 internal threaded floating cap, and Buna-N seal. No code needed to specify these options. Floating cap is highly recommended on at least one half of the disconnect to allow for self alignment upon connection.
2 Silicone seals should only be selected if connection/disconnection will be very infrequent.
3 FFKM seals are special order, and may come with minimum order requirement or extended lead time.

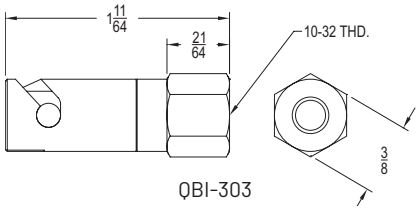
High Pressure Bayonet Quick Disconnects, Single Shut-Off

DESCRIPTION
Bayonet quick disconnects rated for use up to 3,000 psig. Internal end will shut off when disconnected. No shut-off in external end. Quarter turn to connect and disconnect.

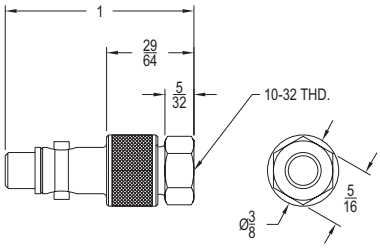
MAXIMUM PRESSURE RATING
3,000 psig while connected, 1,500 psig while disconnected, 200 psig while connecting or disconnecting.

MATERIAL
303 stainless steel internal end, 303 stainless steel external end.

SEALS
Buna-N O-rings. Optional materials: EPDM and Fluorocarbon. See page 11.



QBI-303



QBE-303

Part Number 303 SS	Mating Half	Connection
QBI-303	internal end	10-32 internal thread
QBE-303	external end	10-32 internal thread

High Pressure Bayonet Quick Disconnects, Dry Break

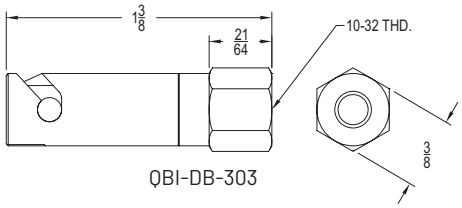
DESCRIPTION
Bayonet quick disconnects rated for use up to 3,000 psig. Internal end and external end will shut off when disconnected. Additionally, the design minimizes dead volume to essentially eliminate leakage when disconnecting. Quarter turn to connect and disconnect.

MAXIMUM PRESSURE RATING
3,000 psig while connected, 1,500 psig while disconnected, 200 psig while connecting or disconnecting.

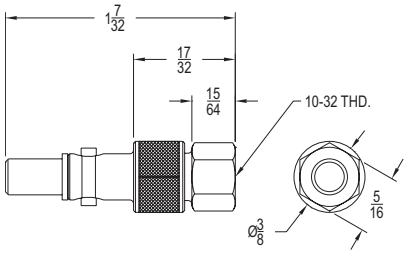
MAXIMUM SPILL VOLUME
Approximately 0.065ml upon disconnection.

MATERIAL
303 stainless steel internal end, 303 stainless steel external end.

SEALS
Buna-N O-rings. Optional materials: EPDM and Fluorocarbon. See page 11.



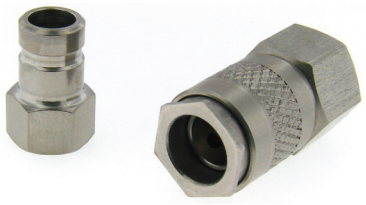
QBI-DB-303



QBE-DB-303

Part Number 303 SS	Mating Half	Connection
QBI-DB-303	internal end	10-32 internal thread
QBE-DB-303	external end	10-32 internal thread

High Flow Quick Disconnects, Single Shut-off



DESCRIPTION

High flow quick disconnects. Internal end will shut off when disconnected.

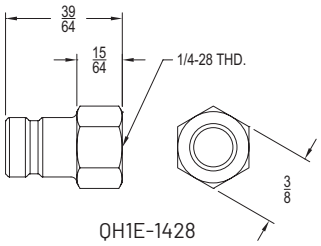
MATERIAL

303 stainless steel body. 316 stainless steel ball bearings and 302 stainless steel springs.

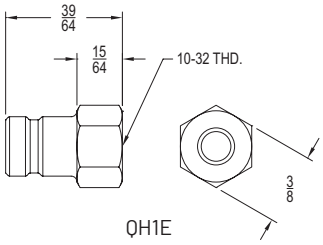
SEALS

Buna-N O-rings. Optional materials: Fluorocarbon. See page 11.

Part Number 303 SS	Mating Half	Connection
QH1I-303	internal end	10-32 internal thread
QH1E	external end	10-32 internal thread
QH1I-1428-303	internal end	¼-28 internal thread
QH1E-1428	external end	¼-28 internal thread



QH1E-1428

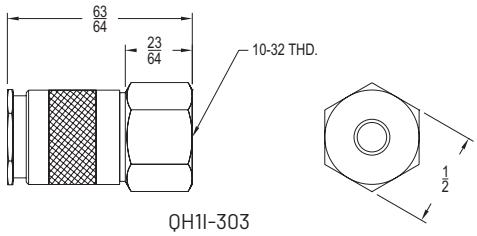


QH1E

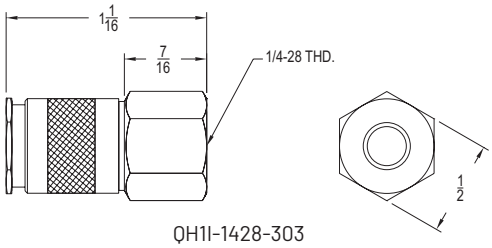
SPOTLIGHT

Custom Products

We are constantly working to design custom fittings, quick disconnects, valves and pressure regulators that satisfy specific customer requirements just like those that you have. Contact us, and a Beswick applications engineer would be happy to discuss your needs with you.



QH1I-303



QH1I-1428-303

High Flow Quick Disconnects, Double Shut-off

DESCRIPTION

High flow quick disconnects. Internal and external ends will shut off when disconnected.

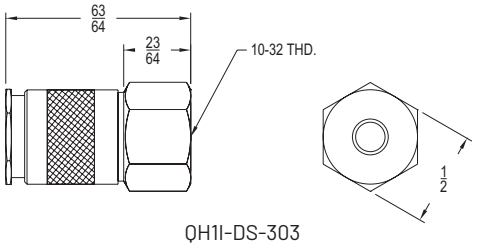
MATERIAL

303 stainless steel body. 316 stainless steel ball bearings and 302 stainless steel springs.

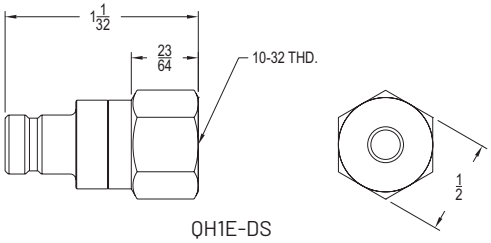
SEALS

Buna-N O-rings. Optional material: Fluorocarbon. See page 11.

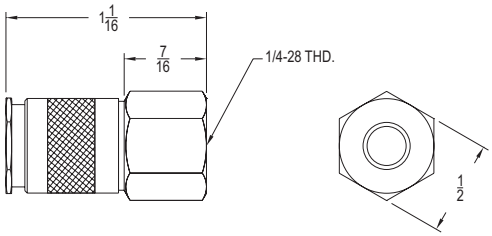
Part Number 303 SS	Mating Half	Connection
QH1I-DS-303	internal end	10-32 internal thread
QH1E-DS	external end	10-32 internal thread
QH1I-DS-1428-303	internal end	¼-28 internal thread
QH1E-DS-1428	external end	¼-28 internal thread



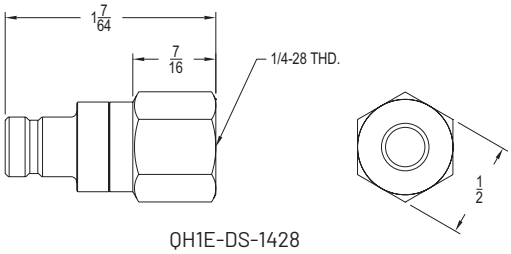
QH1I-DS-303



QH1E-DS



QH1I-DS-1428-303



QH1E-DS-1428

High Flow Quick Disconnects, Dry Break

PART DESIGNATION: QDA3L-BBB-3CD
Replace each underlined letter with a code.
A, BBB, and C must be filled in. D is an extra available option.

Half of Assembly	Code	Description
A	I	Internal (female) Half
	E	External (male) Half
Connection Style		
BBB	8E	M8x1.25 External Thread
	54I	5/16-24 Internal Thread
	54E	5/16-24 External Thread
	14C	1/4" Compression Fitting
Seal Material		
C	E	EPDM
	V	Fluorocarbon
Special Options		
D	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

DESCRIPTION

High flow quick disconnects. Internal and external ends will shut off when disconnected. The design minimizes dead volume (the space between the internal and external ends when connected) to essentially eliminate any leakage when disconnecting. The fitting allows for a substantial amount of flow while maintaining a small envelope 9/16" (14.3 mm) hex body.

EFFECTIVE ORIFICE

.0180" (4.6mm)

MAXIMUM SPILL VOLUME

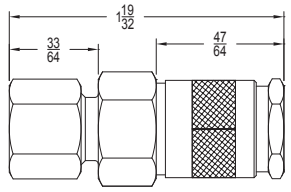
Approximately 0.065ml upon disconnection.

MATERIAL

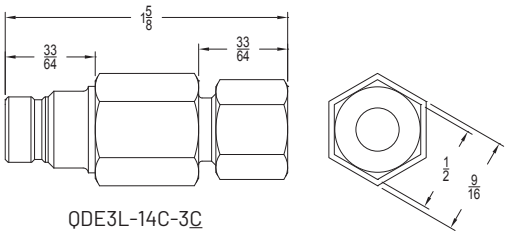
303 stainless steel body. 316 stainless steel ball bearings and 302 stainless steel springs.

SEALS

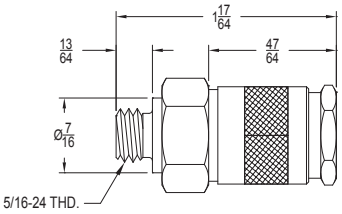
EPDM or Fluorocarbon O-ring seals. See page 11.



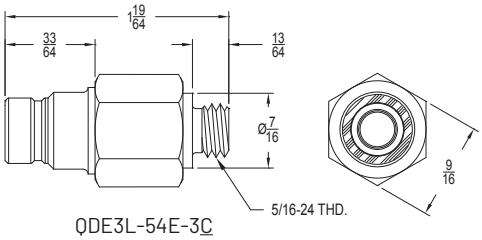
QDI3L-14C-3C



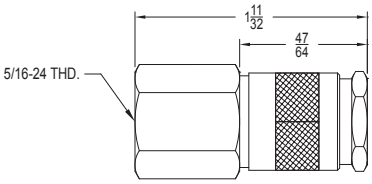
QDE3L-14C-3C



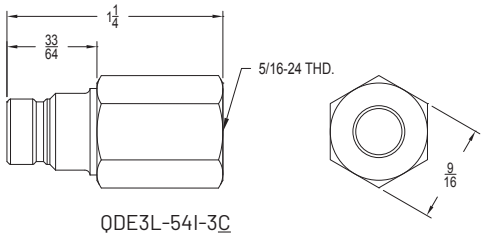
QDI3L-54E-3C



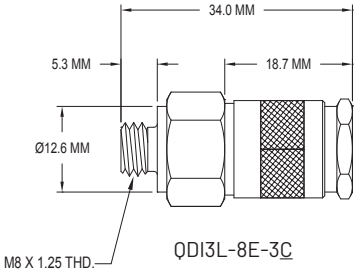
QDE3L-54E-3C



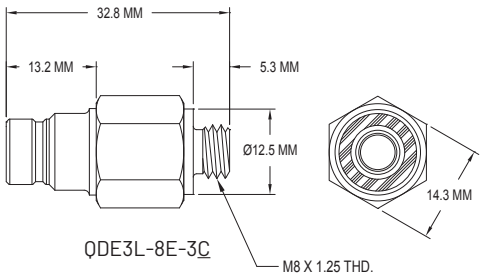
QDI3L-54I-3C



QDE3L-54I-3C



QDI3L-8E-3C



QDE3L-8E-3C

Multiple Line Quick Disconnects, Internal End

DESCRIPTION

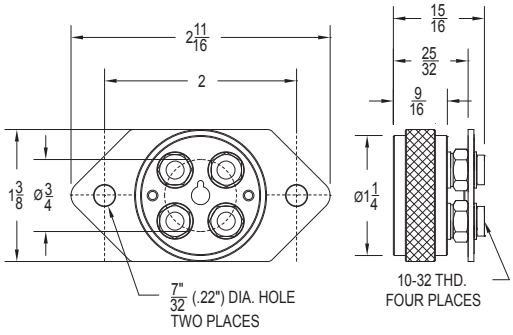
The snap-type multiple line quick disconnect features a releasing sleeve that permits one-hand connecting or disconnecting of several fluid lines simultaneously. Simply push the sleeve in to disconnect the fluid lines and push the internal and external ends together to connect the lines. The design incorporates a keyed location pin to ensure correct orientation of the fluid lines during connection.

MATERIAL

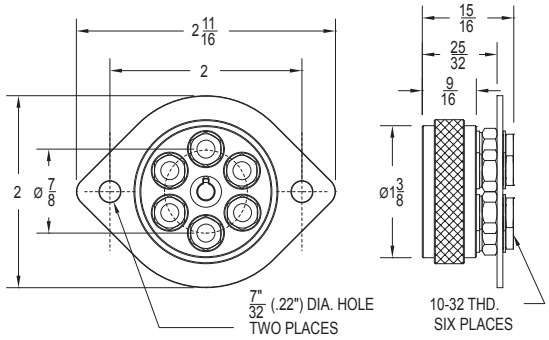
Brass, 303 or 316 stainless steel body. 316 stainless steel ball bearings and 302 or 316 stainless steel springs in the flow path. This item also includes an acetal (AKA Delrin®) releasing sleeve and stainless steel and ENP brass components not in the flow path.

SEALS

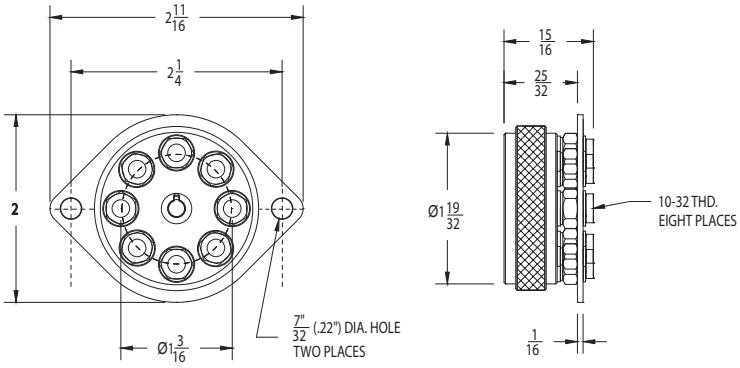
Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, Silicone, and Fluorosilicone. See page 11.



QDC4L-101-I



QDC6L-101-I



QDC8L-101-I

PART DESIGNATION INTERNAL/FEMALE HALF:
QDCAL-101-I-BB-CCC-DE
Replace each underlined letter with a code. A must be filled in. BB, CCC, D and E are extra available options.

Number of Lines	Code	Description
A	4	Four Lines
	6	Six Lines
	8	Eight Lines
Shut-Off[1]		
BB		Single Shut-off (No Designation)[2]
	DS	Double Shut-off
Body Material		
CCC		Brass (No Designation)[2]
	303	303 Stainless Steel
	316	316 Stainless Steel
Seal Material		
D		Buna-N (No Designation)[2]
	E	EPDM
	V	Fluorocarbon
	S	Silicone[3]
	FS	Fluorosilicone
Special Options		
E	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Must use with mating half of same type. For example, a double shut-off internal/female half is only compatible with a double shut-off external/male mating half.
2 Standard configuration is single shut-off, 10-32 internal thread, brass body and Buna-N seal. No code needed to specify these options.
3 Silicone seals should only be selected if connection/disconnection will be very infrequent.

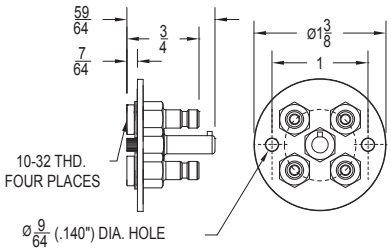
NOTE: The releasing sleeve diameters can be used to determine an appropriate clearance hole for mounting the internal side of the quick disconnect.

Multiple Line Quick Disconnects, External End

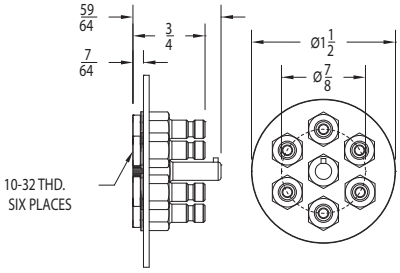
PART DESIGNATION EXTERNAL/MALE HALF:
QDCAL-101-E-BB-CCCC-DDD-EF
Replace each underlined letter with a code. A must be filled in.
BB, CCCC, DDD, E and F are extra available options.

Number of Lines	Code	Description
A	4	Four Lines
	6	Six Lines
	8	Eight Lines
Shut-Off[1]		
BB		Single Shut-off (No Designation)
	DS	Double Shut-off
Connection Style[2]		
CCCC	EB1	10-32 internal thread
	MN10	10-32 external thread
	1008-1	.170" to 3/16" (4.5mm) Long Barb
	1008-2	.170" to 3/16" (4.5mm) Short Barb
	1332	1/8" (3.2mm) Barb
	1132	3/32" (2.4 mm) Barb
	1016	5/64" (2.0mm) Barb
	1012	1/16" (1.6mm) Barb
	CB181	Compression Fitting for use with 1/8" OD Plastic or Metal Tubing
Body Material		
DDD	Single Shut-Off Configurations	
		303 Stainless Steel (No Designation)
	316	316 Stainless Steel
	Double Shut-Off Configurations	
		303 Stainless Steel QDC & Brass Fitting (No Designation)
	303	303 Stainless Steel QDC & 303 Stainless Steel Fitting
	316	316 Stainless Steel
Seal Material		
E		Buna-N or No O-ring (No Designation)
	E	EPDM
	V	Fluorocarbon
	S	Silicone[3]
	FS	Fluorosilicone
Special Options		
F	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

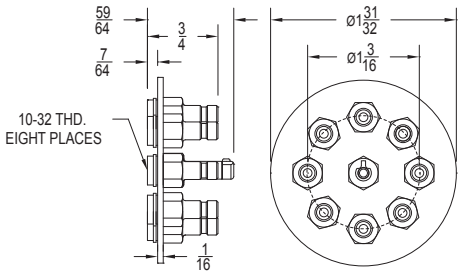
1 Must use with mating half of same type. For example, a double shut-off internal/female half is only compatible with a doubld shut-off external/male mating half.
2 Double shut-off configurations only. Leave this field blank if you have selected a single shut-off configuration.
3 Silicone seals should only be selected if connection/disconnection will be very infrequent.



QDC4L-101-E



QDC6L-101-E

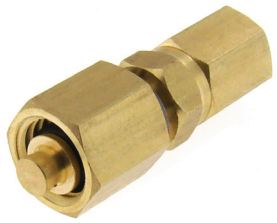


QDC8L-101-E

Internal, Screw Type Quick Disconnect

DESCRIPTION

Internal end of the Beswick miniature screw-type quick disconnect. The screw-type quick disconnect allows for fast set-up and break-down of fluid lines and facilitates easy component replacement. When the internal end (QDC-1F, QDC-2F or QDC-5F) and the external end (QDC-1M, QDC-2M or QDC-3M) are screwed together, a valve in the external end opens to permit flow. When the external end and internal end are disconnected, the valve in the external end closes to prevent fluid from exiting. The QDC-4F and QDC-5M can be used when no shut-off valve is needed. The screw-type quick disconnects are economical and a good choice when connects/disconnects are infrequent. Beswick snap-type quick disconnects may be a better choice for more frequent connects/disconnects or greater convenience is desired.



MATERIAL

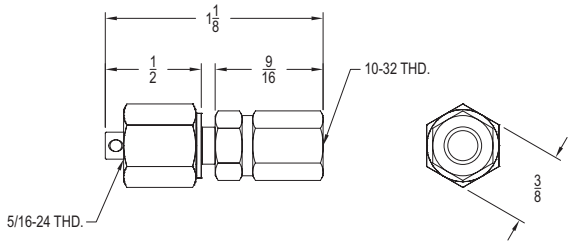
Brass body & nut with one steel E-ring.

SEALS

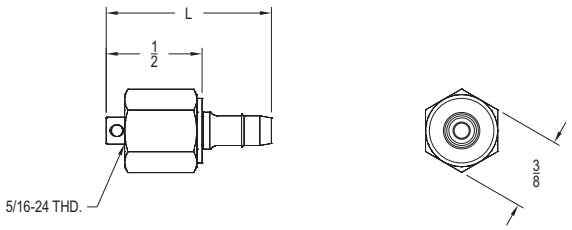
Two Buna-N O-rings. Optional material: Fluorocarbon. See page 11.

NOTE: To order with 3/8" diameter knurled sleeve instead of 3/8" hexagonal sleeve add "K" after the "F" in the part number. For example, QDC-1FK specifies the QDC-1F with a 3/8" diameter knurled sleeve.

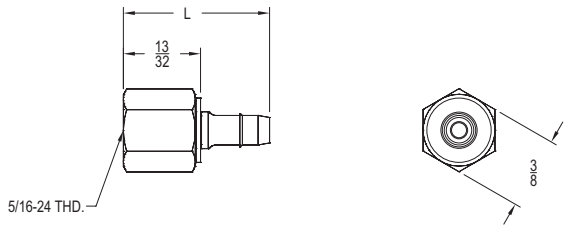
Suggested Tube ID [1] / Thread Size	Part Number Brass	L	Use with Beswick Fitting Number(s)
10-32 internal	QDC-1F	1 1/8	QDC-1M, QDC-2M or QDC-3M
.170 to 3/16	QDC-2F-1008-1	1	QDC-1M, QDC-2M or QDC-3M
	QDC-4F-1008-1	29/32	QDC-5M (no shut-off)
1/8	QDC-2F-1332	27/32	QDC-1M, QDC-2M or QDC-3M
	QDC-4F-1332	49/64	QDC-5M (no shut-off)
3/32	QDC-2F-1132	3/4	QDC-1M, QDC-2M or QDC-3M
	QDC-4F-1132	43/64	QDC-5M (no shut-off)
5/64 (2mm)	QDC-2F-1016	3/4	QDC-1M, QDC-2M or QDC-3M
	QDC-4F-1016	43/64	QDC-5M (no shut-off)
1/16	QDC-2F-1012	3/4	QDC-1M, QDC-2M or QDC-3M
	QDC-4F-1012	43/64	QDC-5M (no shut-off)
1/8-27 NPT external	QDC-5F	1 21/64	QDC-1M, QDC-2M or QDC-3M



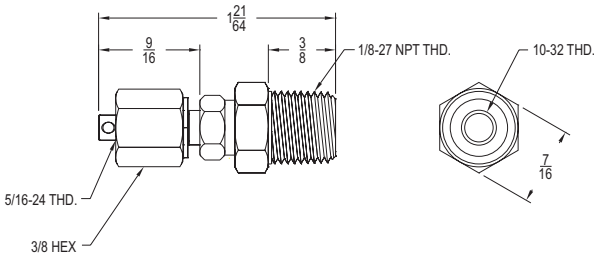
QDC-1F



QDC-2F



QDC-4F
(use with QDC-5M only)



QDC-5F

[1] Suggested tube ID is for polyurethane or vinyl tubing. Consult factory if you plan to use a different tubing material.

External, Screw Type Quick Disconnect

DESCRIPTION

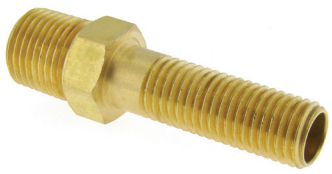
External end of miniature screw-type quick disconnect. This end, except for QDC-5M, is equipped with a shut-off valve to prevent air or fluid from exiting when disconnected.

MATERIAL

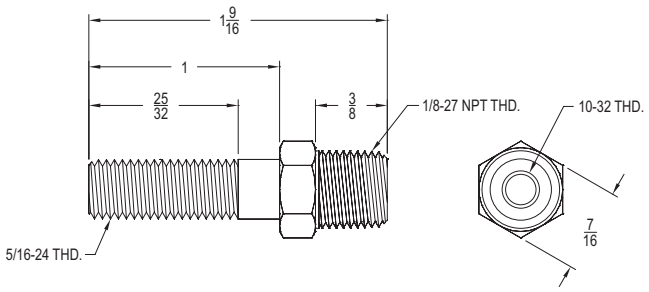
Brass body with plated brass valve mechanism with 410 stainless steel washers. and brass lock nuts on panel mount configurations.

SEALS

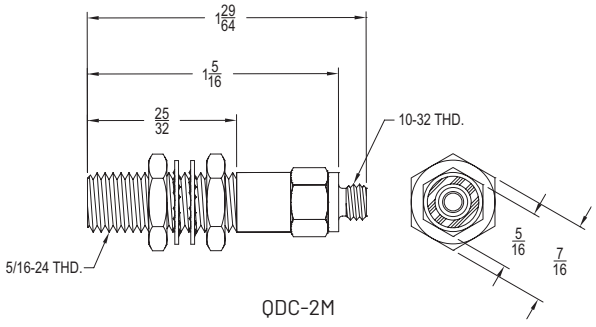
EPDM seals on valve mechanism; and one Buna-N O-ring, OR-516-40-B, on QDC-2M and QDC-5M. See Page 11.



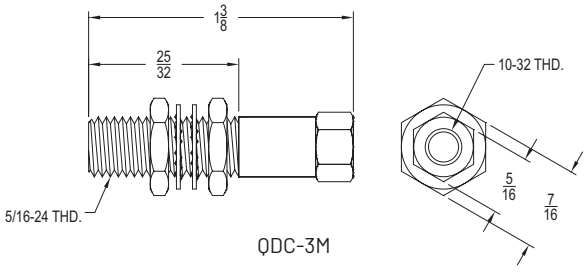
Thread	Part Number Brass	Shut-off Valve	Panel-Mount	Use With
1/8 NPT external	QDC-1M	yes	yes	QDC-1F, QDC-2F, or QDC-5F
10-32 external	QDC-2M	yes	yes up to 1/4 thick	
10-32 internal	QDC-3M	yes		
10-32 external	QDC-5M	no	no	QDC-4F



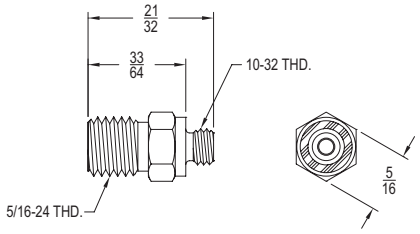
QDC-1M



QDC-2M



QDC-3M



QDC-5M
(use with QDC-4F only)

Pressure Regulator Types

Piston vs. Diaphragm Regulators

Piston Regulators – Beswick Engineering introduced its first piston style pressure regulator over 48 years ago. These regulators are economical and relatively accurate. They are an excellent choice for applications requiring higher outlet pressures in the range of 30-400 psig.

Diaphragm Regulators – Beswick diaphragm regulators offer a large valve to sensing area ratio and a near frictionless design. These features reduce hysteresis and improve accuracy over a piston style regulator. This style of regulator is an ideal choice for applications with very low outlet pressures (<1 to 30 psig) or flow rates.

Single-Stage vs. Multi-Stage Regulators

Single - Stage – Single-stage regulators are best suited for applications where the inlet pressures and flow rates will remain relatively consistent at all times.

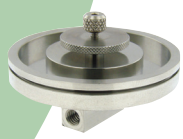
Multi-Stage – A multi-stage regulator is best suited for applications where supply pressures will be fluctuating or decaying over time (e.g. when coming from a tank of compressed gas). The multi-stage design is able to hold outlet pressures steady with minimal droop or rise, even with very wide swings in supply pressure or flow.

Beswick's ever growing line of award winning pressure regulators sets an industry standard for miniaturization, light weight, and reliable performance. The following pages highlight the various options available when selecting a Beswick regulator and for which type of application condition each is best suited.

Relieving vs Non-Relieving Regulators

Relieving Regulators – A relieving (also known as self-relieving) regulator allows excess downstream pressure to be vented to atmosphere, even if there is no flow (dead ended).

Non-Relieving Regulators – A non-relieving regulator will not vent excess downstream pressure to the atmosphere. This type is preferred, when the media running through the regulator will be a liquid or a hazardous or expensive gas.



High Resolution Diaphragm Cap

One of the major factors affecting a regulator's performance is the ratio of valve area to sensing area. With this in mind, Beswick now offers a larger high resolution diaphragm cap for the most demanding applications. This cap greatly increases the sensing area when installed on a compatible regulator, providing a higher degree of accuracy and resolution at very low outlet pressures and flow rates. This cap is available on almost all standard diaphragm style regulators.

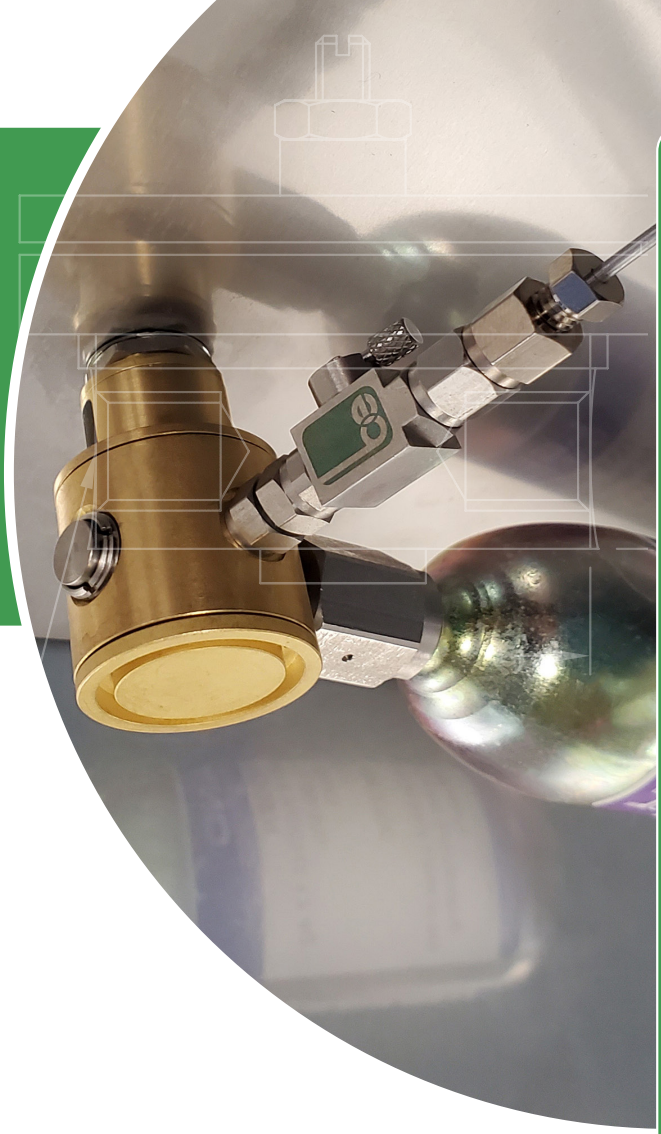
Coil Spring

When installed on a compatible diaphragm regulator, the optional coil spring cap allows for improved stability and resolution, particularly at higher outlet pressure settings. This cap is recommended for applications requiring an outlet pressure over 30 psig.

We 100% test each one of our regulators.
Contact a Beswick engineer for more information.

PRESSURE REGULATORS

Beswick's ever growing line of award winning pressure regulators sets an industry standard for miniaturization, light weight, and reliable performance. There are many different types available, from diaphragm pressure regulators to piston and back pressure regulators.



NOTE: Photos in this catalog are not actual size, For dimensions, please refer to the schematic drawings.

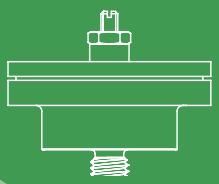
Pressure Regulator Type Comparison

Family	Type	# Stages	Max Inlet (psig)	Outlet Range (psig)	Body Material Options	Seal Options	Features
PRD	Diaphragm	1	500	0-50	BR, AL, 303, 316	B,E,V	Miniature
PRDB	Diaphragm	1	500	0-50	BR, 303, 316	B,E,V	High Accuracy
PRDB8	Diaphragm	1	500	0-50	303, 316	B,E,V	Manifold Mount
PRDB-18MM	Diaphragm	1	500	0-20	BR	B,E,V	Sub-Miniature
PRDHF	Diaphragm	1	500	0-50	BR, AL, 303, 316	B,E,V	High Flow
PRDHF8	Diaphragm	1	500	0-50	BR, 303, 316	B,E,V	High Flow , Manifold Mount
PRD28	Piston 1st, Diaphragm 2nd	2	500	0-30	BR	B,E,V	Manifold Mount
PRD3	Diaphragm	2	500	0-30	BR, AL, 303, 316	B,E,V	Miniature
PRD4HP	Piston 1st, Diaphragm 2nd & 3rd	3	3000	0-30	BR, 316	B,E,V, H	High Inlet Pressures
PR-MLS	Piston	1	500	0-100	BR, 303	B,E,V	Ultra Miniature
PR	Piston	1	500	10-400	BR, AL, 303	B,E,V	High outlet pressures
PCFCD	Diaphragm	1	500	10 (differential)	BR, 316	B,E,V	Pressure Compensated Flow Control
BPR	Piston	1	500	0-400	BR, AL, 303	B,E,V	Back Pressure Regulator
VRD	Diaphragm	1	-14.7	-12.7 to 0	BR, AL, 303, 316	B,E,V	Vacuum Regulator
VRD8	Diaphragm	1	-14.7	-12.7 to 0	BR, 303	B,E,V	Vacuum Regulator, Manifold Mount
VRV	Diaphragm	1	500	-12.7 to 0	303	B,E,V	Vacuum Relief Valve

BR = Brass, AL = Aluminum, 303 = 303 Stainless Steel, 316 = 316 Stainless Steel, B = Buna-N, E = EPDM, V = Fluorocarbon, H = HNBR

SPOTLIGHT

Tips For Properly Setting Your New Regulator



1. We recommend that you initially set your new regulator dead ended (no flow downstream) by slowly turning the adjustment screw in the clockwise direction to the set point.

2. If this is a normally flowing application, we recommend opening up flow downstream after step 1. The outlet pressure will drop, and further adjustment may be necessary.

3. Outlet pressure should always be set on the rise. If you need to decrease outlet pressure, it is recommended that you reduce the outlet pressure below the set point, by turning the adjustment counterclockwise, and then slowly increase the outlet pressure. In applications that are normally dead ended (no flow) you must vent the pressure downstream of the regulator after turning the adjustment counterclockwise and then let the outlet pressure come back up to the new lower set point.

4. Once the desired outlet pressure is reached we recommend venting/dumping the downstream pressure a few times to make certain the pressure regulator returns the desired outlet pressure. If it doesn't, make the necessary adjustments until the regulator consistently returns to the desired set point. This method helps to break in the regulator and take slack out of the system that might cause the outlet pressure to vary from the desired set point.

Ultra-Miniature Single-Stage Diaphragm Pressure Regulator

DESCRIPTION

The PRD is a miniature single-stage diaphragm style pressure regulator. It is an excellent choice for applications with a consistent inlet pressure and low outlet pressure.

Inlet Range: This is a single-stage regulator and is ideal for applications with steady inlet pressures up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-50 psig. The large valve to sensing area ratio and frictionless design of Beswick's diaphragm style regulators make them especially well suited for low pressure regulation, such as ½ psig.

Approximate Weight: 25g in brass and stainless steel (303 & 316). Weight will vary slightly, depending on configuration. Selecting the 2 inch high resolution cap option adds approximately 50-60g to total weight.

Porting: 10-32 internal threaded inlet and outlet ports.

Non-relieving regulator.

MATERIAL

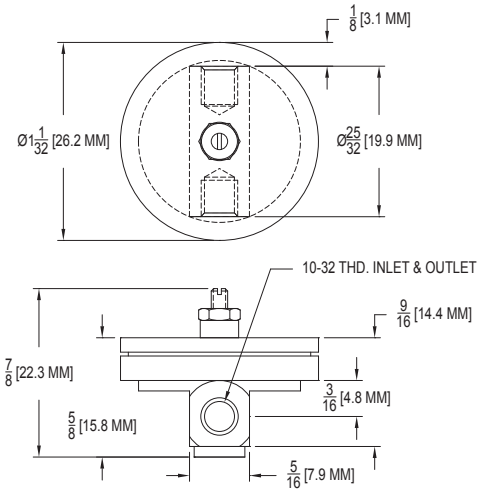
Brass, Aluminum, 303 or 316 stainless steel.

SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

PRD-1N1-C

PRD-2N2-C



PRD-1N1-C (see website for additional drawings and 3D models)

PART DESIGNATION: PRD-ANB-C-DEF
Replace each underlined letter with a designator. A, B and C must be filled must be filled in. D, E, and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut[1]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
	5	Internal 5/64" Hex Key Adjustment[2]
	6	Micro Adjustment Knob[2]
	7	3/8" Hex Adjustment Knob[2]
Body Style		
B	1	1" Standard Cap
	2	1" Standard Cap with 10-32 Panel Mount
	3	1" Standard Cap with 15/32-32 Panel Mount
	4	1" Standard Cap with M3 External Reference Port
	6	2" High Resolution Cap[3]
	7	2" High Resolution Cap With 15/32-32 Panel Mount[3]
	8	2" High Resolution Cap With Coil Spring
	9	1" Coil Spring Cap
Outlet Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
	4	0-40 psi[4]
	5	0-50 psi[4]
Body Material[5]		
D		Brass (No Designation)
	A	Aluminum
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hex lock nut on 2N2 configurations.
2 Adjustment Style 5, 6 , and 7, can only be selected in conjunction with a coil spring cap (body style 8 or 9).
3 Max outlet pressure range is 10 psig with this cap.
4 A coil spring cap is required with 0-40 psig and 0-50 psig outlet range.
5 We do not stock all body styles in every material. Contact factory for availability.

Ultra-Miniature High Accuracy Diaphragm Pressure Regulator

DESCRIPTION

The PRDB series regulator features an improved valve design compared to the PRD series regulators. This allows for improved seal reliability and precision at very low outlet pressures, pressure differentials, and flow rates.

Inlet Range: This is a single-stage regulator and is ideal for applications with steady inlet pressures up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-50 psig. The large valve to sensing area ratio and frictionless design of Beswick's diaphragm style regulators make them especially well suited for low pressure regulation, such as ½ psig.

Approximate Weight: 25g in brass and stainless steel (303 & 316). Weight will vary slightly, depending on configuration. Selecting the 2 inch high resolution cap option adds approximately 50-60g to total weight.

Porting: 10-32 internal threaded inlet and outlet ports. Non-Relieving Regulator.

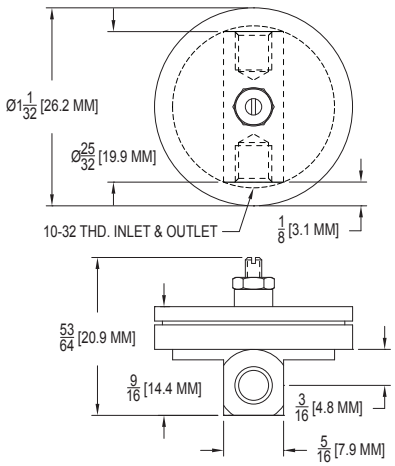
MATERIAL

303 or 316 stainless steel.

SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

PRDB-3N1-C



PRDB-1N1-C (see website for additional drawings and 3D models)

PART DESIGNATION: PRDB-ANB-C-DEF
Replace each underlined letter with a designator. A, B and C must be filled must be filled in. D, E, and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut[1]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
	5	Internal 5/64" Hex Key Adjustment[2]
	6	Micro Adjustment Knob[2]
	7	3/8" Hex Adjustment Knob[2]
Body Style		
B	1	1" Standard Cap
	2	1" Standard Cap with 10-32 Panel Mount
	3	1" Standard Cap with 15/32-32 Panel Mount
	4	1" Standard Cap with M3 External Reference Port
	6	2" High Resolution Cap[3]
	7	2" High Resolution Cap With 15/32-32 Panel Mount[3]
	8	2" High Resolution Cap With Coil Spring
	9	1" Coil Spring Cap
Outlet Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
	4	0-40 psi[4]
	5	0-50 psi[4]
Body Material		
D		Brass (No Designation)
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hex lock nut on 2N2 configurations.
2 Adjustment Style 5, 6, and 7, can only be selected in conjunction with a coil spring cap (body style 8 or 9).
3 Max outlet pressure range is 10 psig with this cap.
4 A coil spring cap is required with 0-40 psig and 0-50 psig outlet range.

Ultra-Miniature, Manifold Mount, High Accuracy Diaphragm Pressure Regulator

DESCRIPTION

The PRDB8 features performance similar to the PRDB, but in a convenient manifold mount configuration.

Inlet Range: This is a single-stage regulator and is ideal for applications with steady inlet pressures up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-50 psig. The large valve to sensing area ratio and frictionless design of Beswick's diaphragm style regulators make them especially well suited for low pressure regulation, such as ½ psig.

Approximate Weight: 24g in stainless steel (303 & 316). Weight will vary slightly, depending on configuration. Selecting the 2 inch high resolution cap option adds approximately 50-60g to total weight.

Porting: 10-32 external threaded inlet port. 0.050" (1.27mm) diameter outlet ports. Non-Relieving Regulator.

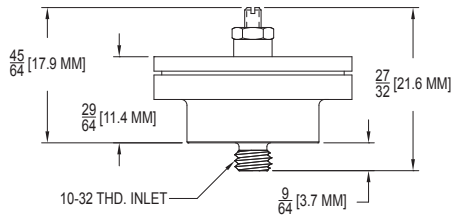
MATERIAL

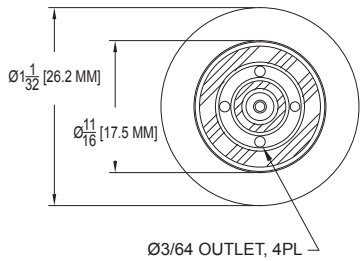
303 or 316 stainless steel.

SEALS

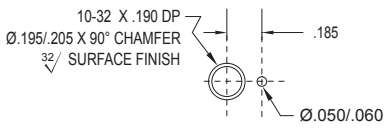
Buna-N. Optional materials: EPDM and Fluorocarbon.

PRDB8-2N1-C





PRDB8-1N1-C (see website for additional drawings and 3D models)



SUGGESTED PORT DIMENSIONS

Note: Care must be taken during installation to avoid shearing the manifold mount thread. Recommended installation torque is 9-12 in lbs.

PART DESIGNATION: PRDB8-ANB-C-DEF
Replace each underlined letter with a designator. A, B, C, and D must be filled in. E, and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
	5	Internal 5/64" Hex Key Adjustment[1]
	6	Micro Adjustment Knob[1]
	7	3/8" Hex Adjustment Knob[1]
Body Style		
B	1	1" Standard Cap
	4	1" Standard Cap with M3 External Reference Port
	6	2" High Resolution Cap[2]
	8	2" High Resolution Cap With Coil Spring
	9	1" Coil Spring Cap
Outlet Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
	4	0-40 psi[3]
	5	0-50 psi[3]
Body Material		
D	3	303 Stainless Steel
	6	316 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 Adjustment Style 5, 6, and 7, can only be selected in conjunction with a coil spring cap (body style 8 or 9).
2 Max outlet pressure range is 10 psig with this cap.
3 Coil spring cap is required for 0-40 psig and 0-50 psig outlet range.

Sub-Miniature Diaphragm Pressure Regulator

DESCRIPTION

The PRDB-18MM series regulator is our smallest diaphragm style regulator. It is ideal for applications where space and weight are critical. It offers some of the performance benefits of our larger diaphragm style regulators, like the PRDB, while setting an industry standard for miniaturization and light weight.

Inlet Range: This is a single-stage regulator and is ideal for applications with steady inlet pressures up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-20 psig.

Approximate Weight: 15g in brass. Weight will vary slightly, depending on configuration.

Porting: Two M3 x 0.5 internal threaded inlet and outlet ports. Non-Relieving Regulator

PRDB-18MM-2-B

MATERIAL

Brass

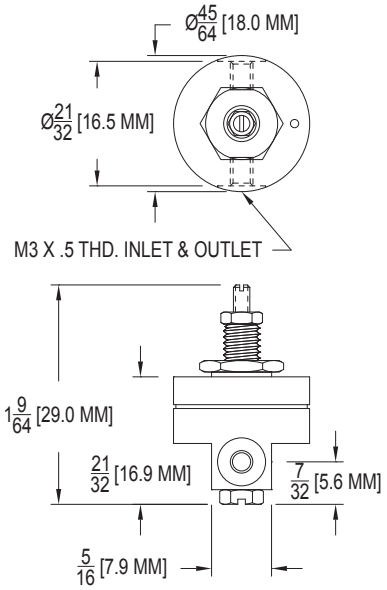
SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

PART DESIGNATION: PRDB-18MM-A-B-C-D
Replace each underlined letter with a designator. A and B must be filled in. C and D are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw - screwdriver adjustment [1]
	2	Knurled Knob with 3mm hexagonal lock nut
	3	Knurled Knob with 3/4" dia. knurled lock disc
Outlet Pressure Range		
B	1	0-10 psig
	2	0-20 psig
Seal and Diaphragm Material		
C		Buna-N (No Designation) [2]
	V	Fluorocarbon
	E	EPDM
Special Options		
D	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 Supplied with a 3/16" hexagonal lock nut.
2 Standard body material is brass and standard seal material is Buna-N. No code is needed to specify brass body or Buna-N seals.



PRDB-18MM-1-B (see website for additional drawings and 3D models)

BESWICK ADVANTAGE
100%
TESTING

We take the time to functionally test 100% of our regulators before shipping to ensure that you receive the highest quality product.

Ultra Miniature Single-Stage Diaphragm High Flow Pressure Regulator

DESCRIPTION

The PRDHF series regulator allows for significantly higher flow when compared to the PRD and PRDB series pressure regulators.

Inlet Range: This is a single-stage regulator and is ideal for applications with steady inlet pressures up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-50 psig.

Approximate Weight: 35g in brass and stainless steel (303 & 316), 18g in aluminum. Weight will vary slightly, depending on configuration. Selecting the 2 inch high resolution cap option adds approximately 50-60g to total weight.

Porting: 10-32 internal threaded inlet and outlet ports.
Non-Relieving Regulator

MATERIAL

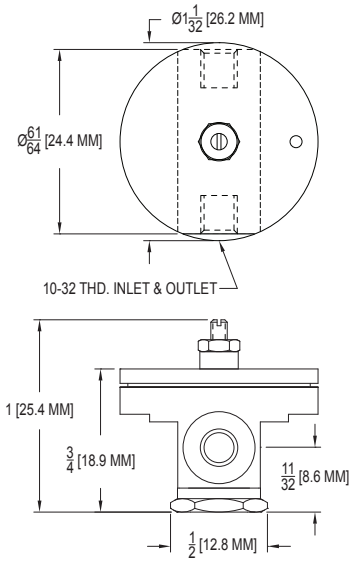
Brass, Aluminum, 303 or 316 stainless steel.

SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

NOTE: The PRDHF series pressure regulator is not recommended for applications that would subject the regulator to sudden spikes or bursts of supply pressure.

PRDHF-3N1-C



PRDHF-1N1-C (see website for additional drawings and 3D models)

PART DESIGNATION: PRDHF-ANB-C-DEF
Replace each underlined letter with a designator. A, B and C must be filled in. D, E and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut[1]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
	5	Internal 5/64" Hex Key Adjustment[2]
	6	Micro Adjustment Knob[2]
	7	3/8" Hex Adjustment Knob[2]
Body Style		
B	1	1" Standard Cap
	2	1" Standard Cap with 10-32 Panel Mount
	3	1" Standard Cap with 15/32-32 Panel Mount
	4	1" Standard Cap with M3 External Reference Port
	6	2" High Resolution Cap[3]
	7	2" High Resolution Cap With 15/32-32 Panel Mount[3]
	8	2" High Resolution Cap With Coil Spring
	9	1" Coil Spring Cap
Outlet Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
	4	0-40 psi[4]
	5	0-50 psi[4]
Body Material		
D		Brass (No Designation)
	A	Aluminum
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hex lock nut on 2N2 configurations.
2 Adjustment Style 5, 6, and 7, can only be selected in conjunction with a coil spring cap (body style 8 or 9).
3 Max outlet pressure range is 10 psig with this cap.
4 Coil spring cap is required for 0-40 psig and 0-50 psig outlet range

Manifold Mount High Flow Pressure Regulator

DESCRIPTION

The PRDHF8 series regulator is a single-stage regulator that features performance similar to the PRDHF series regulator, but in a convenient manifold mount configuration. It allows for significantly higher flow when compared to the PRDB8 series pressure regulators.

Inlet Range: This is a single-stage regulator and is ideal for applications with steady inlet pressures up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-50 psig.

Approximate Weight: 52g in brass and stainless steel (303 & 316). Weight will vary slightly, depending on configuration. Selecting the 2 inch high resolution cap option adds approximately 50-60g to total weight.

Porting: 5/16-24 external threaded inlet port. 3/32" (2.4mm) diameter outlet ports. Non-Relieving Regulator.

MATERIAL

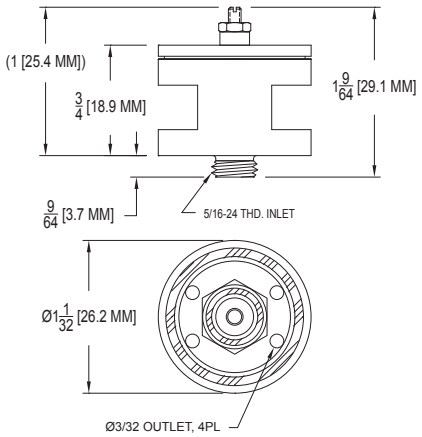
Brass, 303 or 316 stainless steel.

SEALS

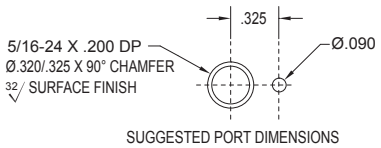
Buna-N. Optional materials: EPDM and Fluorocarbon.

NOTE: The PRDHF8 series pressure regulator is not recommended for applications that would subject the regulator to sudden spikes or bursts of supply pressure.

PRDHF8-1N1-C



PRDHF8-1N1-C (see website for additional drawings and 3D models)



PART DESIGNATION: **PRDHF8-ANB-C-DEF**
Replace each underlined letter with a designator. A, B, and C must be filled in. D, E, and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
	5	Internal 5/64" Hex Key Adjustment[1]
	6	Micro Adjustment Knob[1]
	7	3/8" Hex Adjustment Knob[1]
Body Style		
B	1	1" Standard Cap
	4	1" Standard Cap with M3 External Reference Port
	6	2" High Resolution Cap[2]
	8	2" High Resolution Cap With Coil Spring
	9	1" Coil Spring Cap
Outlet Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
	4	0-40 psi[3]
	5	0-50 psi[3]
Body Material		
D		Brass (No Designation)
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 Adjustment Style 5, 6, and 7, can only be selected in conjunction with a coil spring cap (body style 8 or 9).
2 Max outlet pressure range is 10 psig with this cap.
3 Coil spring cap is required for 0-40 psig and 0-50 psig outlet range.

Ultra Miniature Manifold Mount Two-Stage Pressure Regulator

DESCRIPTION

The PRD28 series regulator is a two stage manifold mount regulator. The first stage is a piston stage and the second is a diaphragm stage.

Inlet Range: This is a two stage regulator and is ideal for applications with fluctuating or decaying inlet pressures, up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-30 psig. The large valve to sensing area ratio and frictionless design of Beswick's diaphragm style regulators make them especially well suited for low pressure regulation, such as ½ psig. The two stage design allows the regulator to maintain a consistent outlet pressure despite wide swings in the inlet/source pressure.

Approximate Weight: 52g in brass. Weight will vary slightly, depending on configuration. Selecting the 2 inch high resolution cap option adds approximately 50-60g to total weight.

Porting: 5/16-24 external threaded inlet port. 3/32" (2.4mm) diameter outlet ports. Non-Relieving Regulator.

PRD28-3N1-C

MATERIAL

Brass.

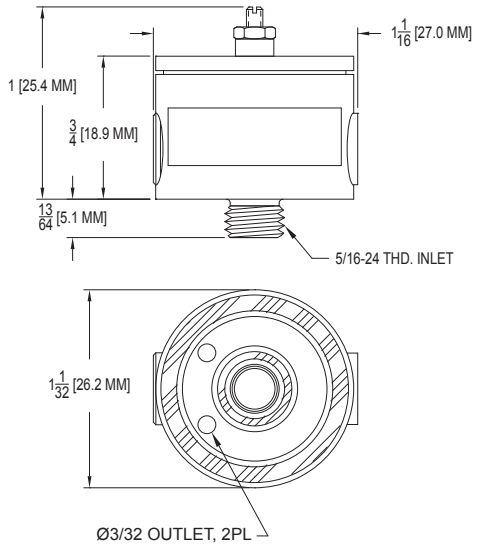
SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

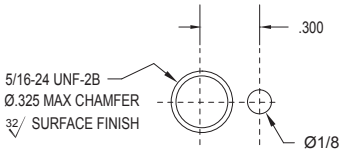
PART DESIGNATION: **PRD28-ANB-C-DE**
Replace each underlined letter with a designator. A, B, and C must be filled in. D, and E are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
Body Style		
B	1	1" Standard Cap
	6	2" High Resolution Cap[1]
Outlet Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
Seal and Diaphragm Material		
D		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
E	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Max outlet pressure range is 10 psig with this cap.



PRD28-1N1-C (see website for additional drawings and 3D models)



SUGGESTED PORT DIMENSIONS

Ultra Miniature Two-Stage Diaphragm Pressure Regulator

DESCRIPTION

The PRD3 is the next generation of our award winning PRD2 family of regulators, featuring larger 10-32 threaded inlet and outlet ports and an improved valve design.

Inlet Range: This is a two stage regulator and is ideal for applications with fluctuating or decaying inlet pressures, up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-30 psig. The large valve to sensing area ratio and frictionless design of Beswick's diaphragm style regulators make them especially well suited for low pressure regulation, such as ½ psig. The two stage design allows the regulator to maintain a consistent outlet pressure despite wide swings in the inlet/source pressure.

Approximate Weight: 66g in brass and stainless steel (303 & 316), 25g in aluminum. Weight will vary slightly, depending on configuration. Selecting the 2 inch high resolution cap option adds approximately 50-60g to total weight.

Porting: 10-32 internal threaded inlet and outlet ports. Non-Relieving Regulator.

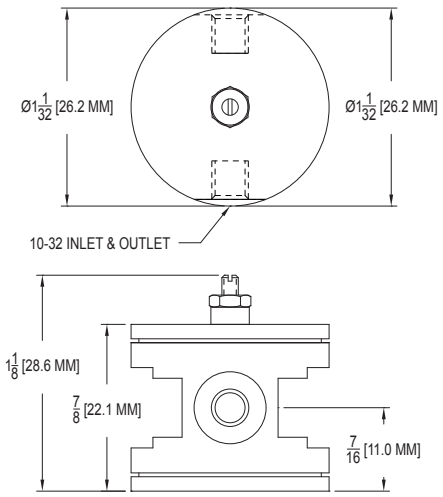
MATERIAL

Brass, aluminum, 303 or 316 stainless steel.

SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

PRD3-2N2-C



PRD3-1N1-C (see website for additional drawings and 3D models)

PART DESIGNATION: PRD3-ANB-C-DEF
Replace each underlined letter with a code.
A, B and C must be filled in. D, E and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut [1]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
Body Style		
B	1	1" Standard Cap
	2	1" Standard Cap with 10-32 Panel Mount
	6	2" High Resolution Cap[2]
	7	2" High Resolution Cap with 15/32-32 Panel Mount[2]
Outlet Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
Body Material		
D		Brass (No Designation)
	A	Aluminum
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hexagonal lock nut on 2N2 configuration.
2 Max outlet pressure range is 10 psig with this cap.

Ultra Miniature Three-Stage High Pressure Diaphragm Regulator

DESCRIPTION

Beswick's award winning PRD4HP is a compact three stage regulator, ideal for applications requiring accurate regulation of high pressure fluids down to very low pressures and flow rates. The PRD4HP has a piston type first stage and diaphragm type 2nd and 3rd stage. This design improves upon and supersedes the PRD3HP series regulator.

Inlet Range: The PRD4HP is a three stage regulator capable of accurately reducing very high inlet pressures, up to 3,000 psig. It is ideal for applications where the source fluid will be coming from a cylinder of high pressure compressed gas.

Outlet Range: Maximum outlet range 0-40 psig. The large valve to sensing area ratio and frictionless design of Beswick's diaphragm style regulators make them especially well suited for low pressure regulation, such as ½ psig. The three stage design allows the regulator to maintain a consistent outlet pressure despite wide swings in the inlet/source pressure.

Approximate Weight: 76g in brass and 316 stainless steel. Weight will vary slightly, depending on configuration. Selecting the 2 inch high resolution cap option adds approximately 50-60g to total weight.

Porting: 1/4-28 internal threaded inlet port with integrated 20 micron sintered filter element, 10-32 internal threaded outlet port. Non-Relieving Regulator.

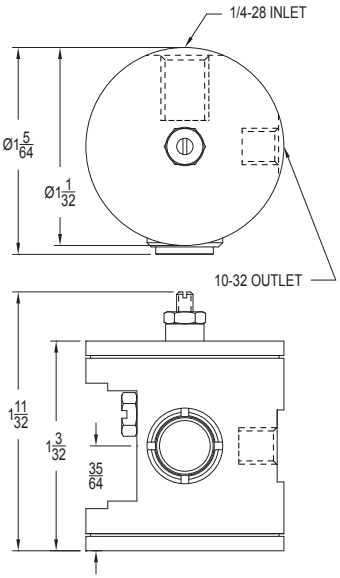
MATERIAL

Brass or 316 stainless steel.

SEALS

Buna-N. Optional Materials: EPDM, Fluorocarbon, and HNBR.
All models also contain PEEK in the flow path.

PRD4HP-2N1-C
PATENTED



PRD4HP-1N1-C (see website for additional drawings and 3D models).

PART DESIGNATION: PRD4HP-ANB-C-DEF
Replace each underlined letter with a code.
A, B and C must be filled in. D, E and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut [1]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
Body Style		
B	1	1" Standard Cap
	2	1" Standard Cap with 10-32 Panel Mount
	6	2" High Resolution Cap[2]
	7	2" High Resolution Cap With 15/32-32 Panel Mount[2]
Outlet Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
	4	0-40 psi[3]
Body Material		
D		Brass (No Designation)
	6	316 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
	H	HNBR
Special Options		
F	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hex lock nut on 2N2 configurations.
2 Max outlet pressure range is 10 psig with this cap.
3 0-40 psig outlet range may have lower resolution and slower reaction time.

Do you require a higher outlet pressure?
Contact the factory for additional options.

PISTON REGULATORS

Single-Stage Piston Pressure Regulator

DESCRIPTION

The PR family of regulators offers relatively precise pressure regulation in a versatile, economical, miniature package. A wide selection of porting configurations and adjustment styles are available, offering design freedom.

Inlet Range: This is a single-stage regulator and is ideal for applications with steady inlet pressures up to a maximum of 500 psig.

Outlet Range: Maximum outlet range 0-400 psig. Piston style regulators contain coil springs and are especially well suited for applications requiring higher outlet pressures (> 10 psig).

Approximate Weight: 72g in brass and stainless steel, and 33g in aluminum. Weight will vary slightly, depending on configuration.

Porting: Eight different porting configurations are available. See opposite page for more details.Relieving and Non-Relieving configurations are available.

Mounting: All models are supplied with a 15/32-32 thread, with two 9/16 hex nuts and 2 washers for panel mounting.

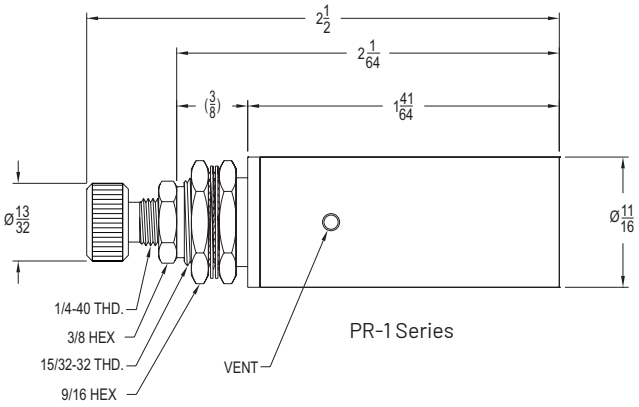
MATERIAL

Brass, aluminum, or 303 stainless steel body. 300 series stainless steel adjustment shaft, springs, hex nuts, and internals. 410 stainless steel washers.

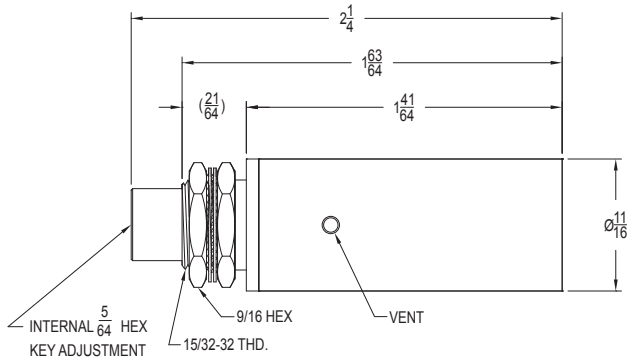
SEALS

Buna-N O-rings. Optional materials: EPDM and Fluorocarbon.

ADJUSTMENT TYPES



PR-1 Series



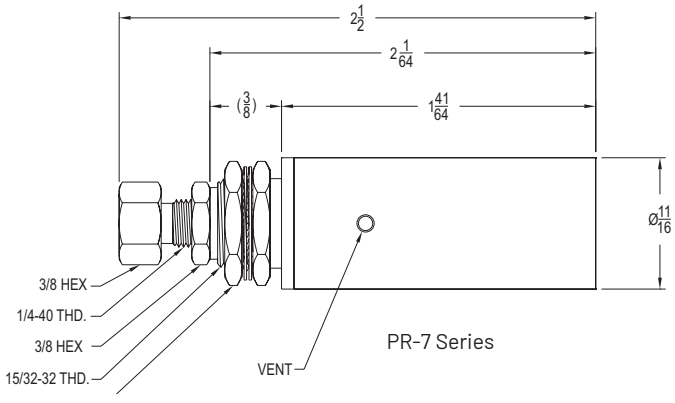
PR-5 Series

Note: Tamper resistant adjustment (Type 5) discourages unauthorized pressure adjustment.

PART DESIGNATION: PR-ABC-DD-EFG
Replace each underlined letter with a designator. A, B, C, and DD must be filled in. E, F, and G are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Knurled Knob with 3/8" hexagonal lock nut
	5	Internal 5/64" Hex Key Adjustment
	7	3/8" Hex Adjustment with 3/8" hexagonal lock nut
Relieving or Non Relieving		
B	N	Non-Relieving
	R	Relieving
Port Configuration / Body Style		
C	1	Type 1
	2	Type 2
	3	Type 3
	4	Type 4
	5	Type 5
	6	Type 6
	7	Type 7
	8	Type 8
Outlet Pressure Range		
DD	03	0-30 psig
	05	0-50 psig
	10	0-100 psig
	40	0-400 psig[1]
Body Material		
E		Brass (No Designation)
	A	Aluminum[2]
	3	303 Stainless Steel[2]
Seal Material		
F		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
G	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

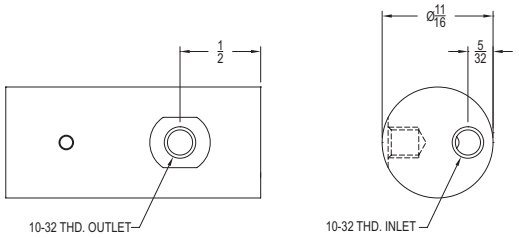
1 Adjustment cap #5 or #7 is recommended for outlet pressure set points up to 150 psig. Adjustment cap #7 required for outlet pressures >150 psig.
2 Not all body styles are currently stocked in aluminum or 303 stainless steel. Consult the factory for availability.



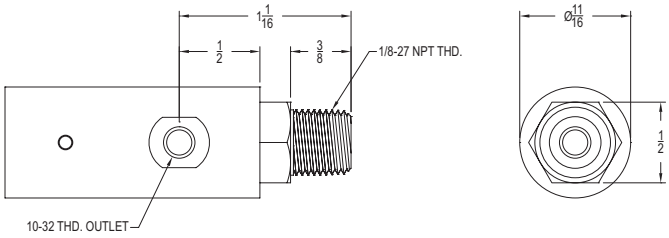
PR-7 Series

Single-Stage Piston Pressure Regulator

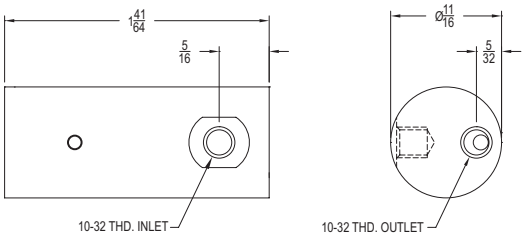
PORT LOCATIONS



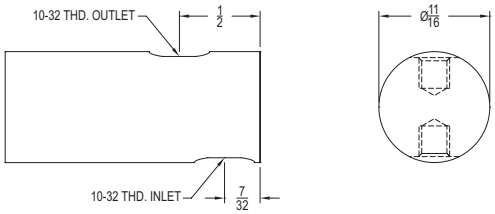
Type 1



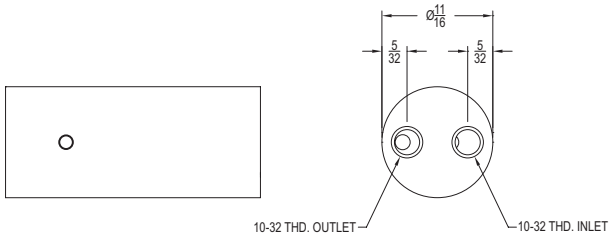
Type 2
(available in brass only)



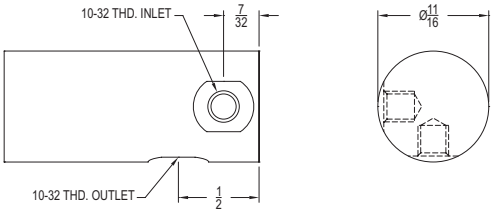
Type 3



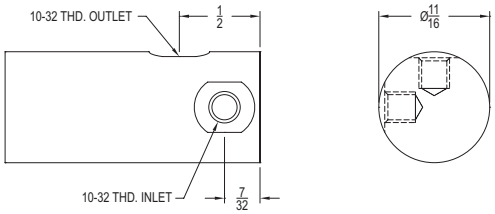
Type 4



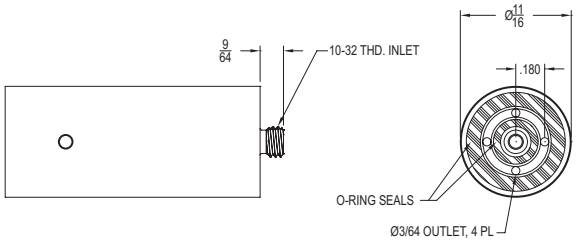
Type 5



Type 6



Type 7



Type 8
(Available in 303 stainless steel only.)

Sub-Miniature Single-Stage Piston Pressure Regulator

DESCRIPTION

Beswick's PR-MLS series single-stage piston style pressure regulators offer relatively precise pressure regulation in an extremely compact package. The PR-MLS is the smallest regulator that we currently offer and is primarily intended for applications where space saving is critical.

Inlet Range: This is a single-stage regulator and is ideal for applications with steady inlet pressures up to a maximum of 500 psig.

Outlet Range: 0-100 psig.

Approximate Weight: 6.2g in brass and 303 stainless steel. Weight will vary slightly, depending on configuration.

Porting: 10-32 external threaded inlet port and barbed, compression, or 10-32 threaded outlet port. A cartridge/manifold mount version is also available with 10-32 external threaded inlet port and two 1/16" (1.6mm) diameter outlet ports. Non-Relieving Regulator.

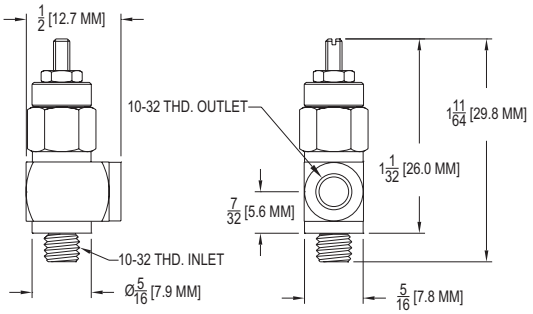
MATERIAL

Brass or 303 stainless steel body. All configurations come with 300 series stainless steel stud and internals.

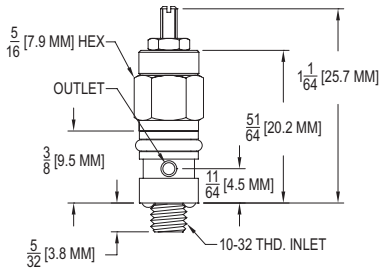
SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

PR-MLS-10-2-3



PR-MLS-10-1



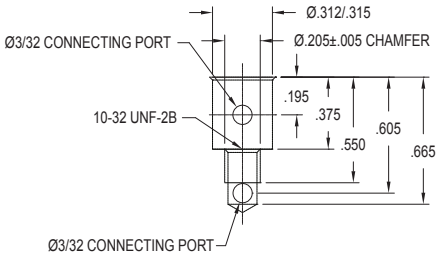
PR-MLS-C8-1

See website for additional drawings and 3D models.

PART DESIGNATION: **PR-MLS-AA-BC-DD-EFG**
Replace each underlined letter with a designator.
AA and B must be filled in. C, DD, E, F, and G are extra available options.

Elbow Outlet	Code	Description
AA	10	Internal 10-32 Thread
	1E	External 10-32 Thread
	12	1/16" ID Barb
	16	5/64" (2mm) ID Barb
	11	3/32" ID Barb
	13	1/8" ID Barb
	82	.170"-3/16" ID Barb
	8A	1/8" OD Compression
	C8	Cartridge Mount[1]
Adjustment Style on Cap		
B	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut[2]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
Mounting Style		
C		No Panel Mount (No Designation)
	P	10-32 Panel Mount Thread
Outlet Pressure Range		
DD		5-45 psig (No Designation)
	LP	0-25 psig
	HP	20-100 psig
Body Material		
E		Brass (No Designation)
	3	303 Stainless Steel
Seal Material		
F		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
G	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Cartridge mount available with 303 stainless steel body material only.
2 3mm hex lock nut on panel mount configurations.



SUGGESTED PORT DIMENSIONS

PRESSURE COMPENSATED FLOW CONTROLS

Reference Pressure

Most regulators are referenced to ambient pressure conditions, however in special applications a customer may wish to reference the regulator to a pressure that is different from the ambient pressure. Beswick offers a special regulator cap (PCFCD cap) with an M3 internal thread tapped into the reference port instead of a non-threaded hole. This provides a way for the customer to reference the regulator to a unique pressure source. The PCFCD cap can be installed on many of our diaphragm pressure regulators. Consult a Beswick applications engineer for more details.

Pressure Compensated Flow Control Valve with Low Friction Diaphragm

DESCRIPTION

The PCFCD-1N1 is designed to maintain a constant flow rate, which the customer can adjust, regardless of upstream or downstream pressure variations. It works with both liquids (incompressible fluids) and gases (compressible fluids), but is primarily intended for the control of liquids. The pressure regulation is accomplished with a low friction diaphragm mechanism.

Inlet Range: The PCFCD is rated for a maximum inlet pressure of 135 psig at 70 degrees Fahrenheit and a minimum pressure differential of 20 psig ΔP is required for this valve to regulate properly. Contact a Beswick applications engineer if you plan to use this product at elevated temperatures.

Pressure Differential Setting: Factory preset to maintain a 10 psig differential across the adjustable orifice.

Effective Orifice: 0" to 0.032" (0 to 0.8mm) with standard and high resolution needle.

Flow Control Range:
Especially well suited for control of low flow rates.

- 0 to 4.2 gallons per hour (0 to 265 sccm) of water.
- 0 to 20 scfh (0 to 9.4 slpm) of air.
- High flow needles available. Consult factory for details

Approximate Weight: 45g in brass and stainless steel. Weight will vary slightly, depending on configuration.

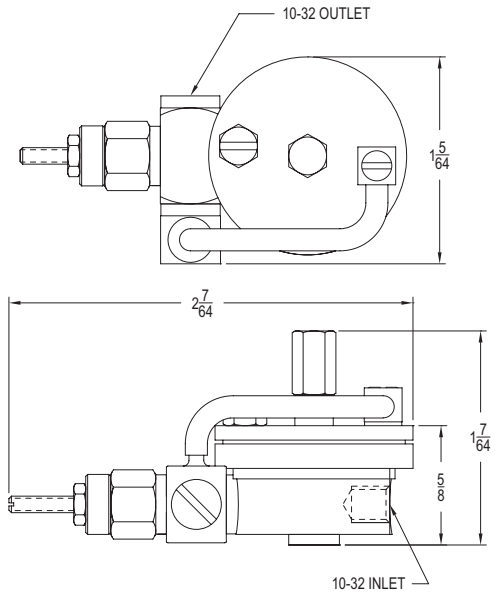
Porting: 10-32 internal threaded inlet and outlet port.

MATERIAL

Brass or 316 stainless steel body. Polyurethane, 18-8 stainless steel, and 300 series stainless steel components in flow path.

SEALS

Buna-N O-rings and diaphragm. Optional materials: EPDM and Fluorocarbon. See page 11.



PCFCD-1N1

2008 design news GOLDEN MOUSETRAP Winner

Design News magazine "2008 Golden Mousetrap" winner

PART DESIGNATION: PCFCDA-BNC-DEF
Replace each underlined letter with a designator.
B and C must be filled in. A, D, E, and F are optional.

Needle Valve Type	Code	Description
A		Standard Needle Valve (No Designation)
	H	Higher Resolution Needle Valve
Needle Valve Adjustment		
B	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut[1]
	3	Knurled Knob with 3/4" dia. knurled lock disc[2]
	4	Slotted Screw with 3/4" dia. knurled lock disc
Needle Valve Mounting Style		
C	1	No Special Mount
	2	10-32 Panel Mount Thread
Body Material		
D		Brass (No Designation)
	6	316 Stainless Steel
Seal Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hex lock nut on 2N2 configurations.
2 Panel mount option not recommended with type 3 adjustment style.

PISTON BACK PRESSURE REGULATORS

Single-Stage Piston Back Pressure Regulator

DESCRIPTION

A back pressure regulator is a modulating device, set to maintain the operating pressure of the system upstream of the back pressure regulator. It contains a normally closed valve element and is typically placed at the end of the fluid line. The regulator will crack open when pressures upstream reach the set pressure (adjustable), allowing excess pressure to vent from the outlet port. When pressures drop down below the set pressure again, the regulator will close.

Inlet Range: The BPR can handle a maximum inlet pressure of 500 psig.

Cracking Pressure Range: Maximum cracking pressure range 0- 400 psig. Piston style regulators contain coil springs and are especially well suited for applications requiring higher cracking pressures (>10 psig).

Approximate Weight: 72g in brass and stainless steel, and 33g in aluminum. Weight will vary slightly, depending on configuration.

Porting: Eight different porting configurations are available. See opposite page for more details.

Mounting: All models are supplied with a 15/32-32 thread, with two 9/16" hex nuts and 2 washers for panel mounting.

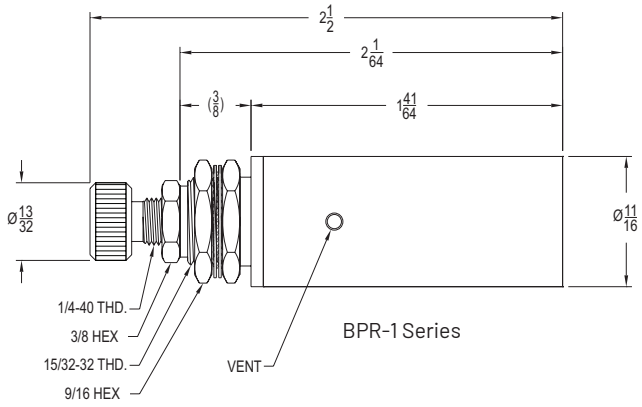
MATERIAL

Brass, aluminum, or 303 stainless steel body. 300 series stainless steel adjustment shaft, springs, hex nuts, and internals. 410 stainless steel washers.

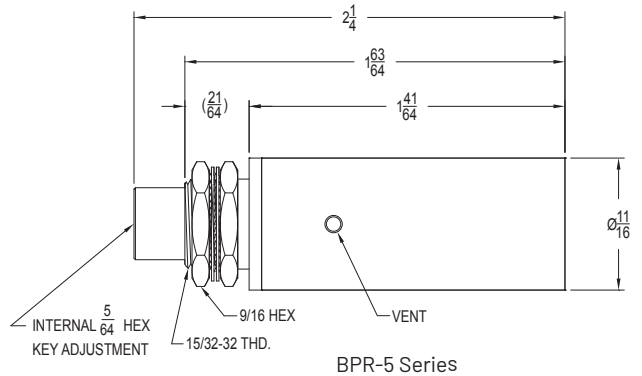
SEALS

Four Buna-N O-rings except for type 8 which has six Buna-N O-rings. Optional materials: EPDM and Fluorocarbon.

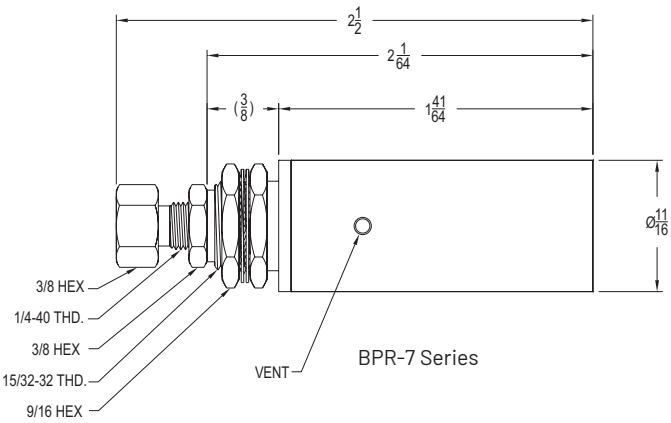
ADJUSTMENT TYPES



BPR-1 Series



BPR-5 Series



BPR-7 Series

PART DESIGNATION: BPR-ANB-CC-DEF
Replace each underlined letter with a designator. A, B, and CC must be filled in. D, E, and F are extra available options.

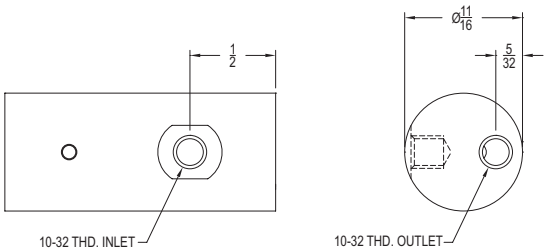
Adjustment Style on Cap	Code	Description
A	1	Knurled Knob with 3/8" hexagonal lock nut
	5	Internal 5/64" Hex Key Adjustment
	7	3/8" Hex Adjustment with 3/8" hexagonal lock nut
Port Configuration / Body Style		
B	1	Type 1
	2	Type 2
	3	Type 3
	4	Type 4
	5	Type 5
	6	Type 6
	7	Type 7
	8	Type 8
Cracking Pressure Range		
CC	03	0-30 psig
	05	0-50 psig
	10	0-100 psig
	40	0-400 psig[1]
Body Material		
D		Brass (No Designation)
	A	Aluminum[2]
	3	303 Stainless Steel[2]
Seal Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Adjustment cap #5 or #7 is recommended for outlet pressure set points up to 150 psig. Adjustment cap #7 required for outlet pressures >150 psig.
2 Not all body styles are currently stocked in Aluminum or 303 stainless steel. Consult the factory for availability.

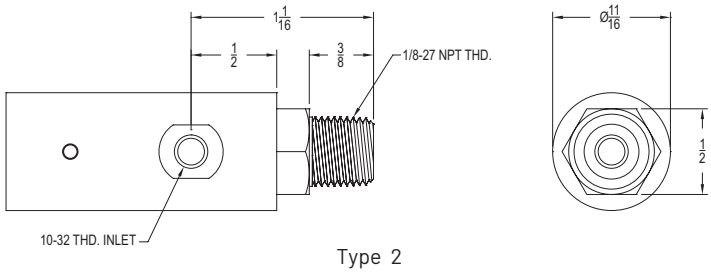
Note: Tamper resistant adjustment (Type 5) discourages unauthorized pressure adjustment.

Single-Stage Piston Back Pressure Regulator

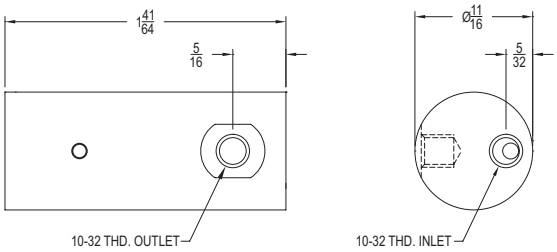
PORT LOCATIONS



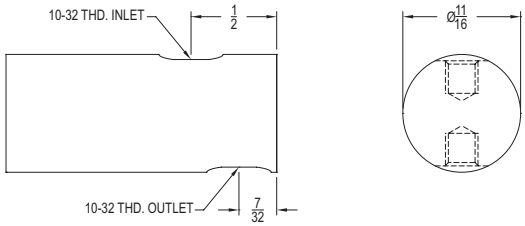
Type 1



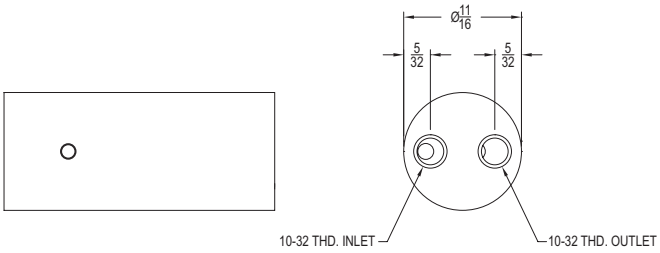
Type 2
(available in brass only)



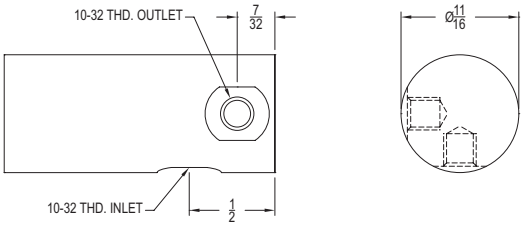
Type 3



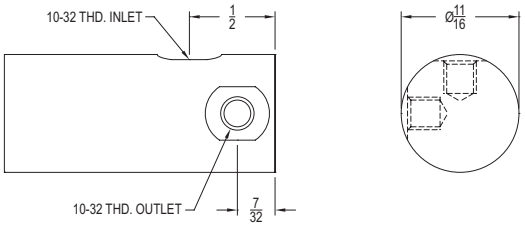
Type 4



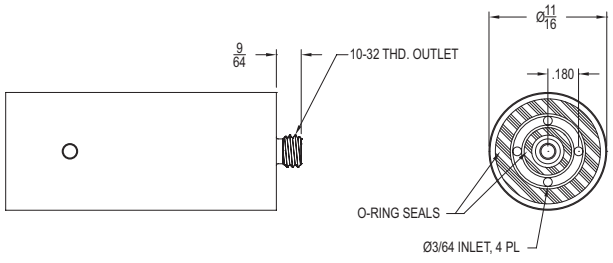
Type 5



Type 6



Type 7



Type 8
(available in 303 stainless steel only.)

DIAPHRAGM VACUUM REGULATORS

Ultra-Miniature Diaphragm Vacuum Regulator

DESCRIPTION

The VRD is a single-stage vacuum regulator

Vacuum Control Range: When placed in line after a vacuum source, it will control vacuum from 0 psig (29.5 in-Hg) down to -12.7 psig (4 in-Hg).

Approximate Weight: 25g in brass and stainless (303 & 316), 15g in aluminum. Weight will vary slightly, depending on configuration.

Porting: 10-32 internal threaded inlet and outlet port. Vacuum source should be connected to the inlet (deeper) port.

Non-Relieving Regulator. You can increase the vacuum setting (greater vacuum) by turning the knob clockwise. You cannot decrease the vacuum setting (less vacuum) from the initial setting unless you vent the downstream line to atmosphere.

VRD-3N1-3

MATERIAL

Brass, aluminum, 303 or 316 stainless steel body. 18-8 stainless steel springs in flow path.

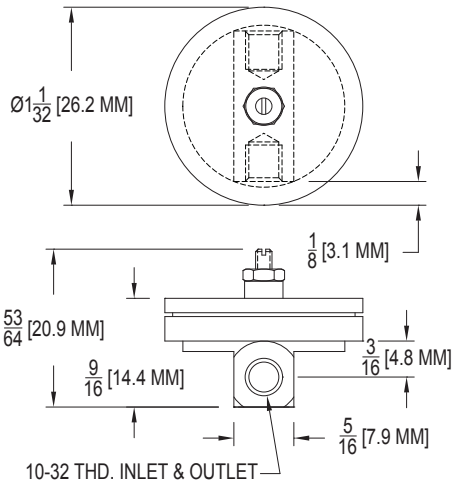
SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

PART DESIGNATION: **VRD-ANB-CDE**
Replace each underlined letter with a code.
A and B must be filled in. C, D, and E are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut [1]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
Body Style		
B	1	1" Standard Cap
	2	1" Standard Cap with 10-32 Panel Mount
	6	2" High Resolution Cap
	7	2" High Resolution Cap with 15/32-32 Panel Mount
Body Material		
C		Brass (No Designation)
	A	Aluminum
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal and Diaphragm Material		
D		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
E	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hex lock nut on 2N2 configurations.



VRD-1N1 (see website for additional drawings and 3D models)

Ultra-Miniature Manifold Mount Diaphragm Vacuum Regulator

DESCRIPTION

The VRD8 is a manifold mount configuration of the VRD single-stage vacuum regulator.

Vacuum Control Range: When placed in line after a vacuum source, it will control vacuum from 0 psig (29.5 in-Hg) down to -12.7 psig (4 in-Hg).

Approximate Weight: 25g in brass and stainless steel. Weight will vary slightly, depending on configuration.

Porting: 10-32 external threaded inlet port. 0.050" (1.27 mm) diameter outlet ports.

Non-Relieving Regulator. You can increase the vacuum setting (greater vacuum) by turning the knob clockwise. You cannot decrease the vacuum setting (less vacuum) from the initial setting unless you vent the downstream line to atmosphere.

MATERIAL

Brass, and 303 stainless steel. 18-8 stainless steel springs in flow path.

SEALS

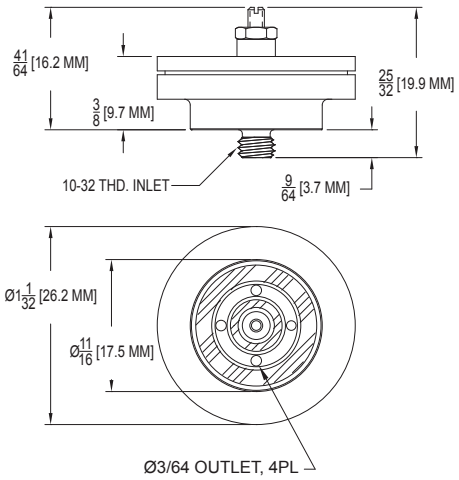
Buna-N. Optional materials: Fluorocarbon and EPDM.

NOTE: Care must be taken during installation to avoid shearing the manifold mount thread. Recommended torque spec is 7-9 in lbs.

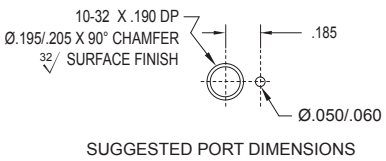
VRD8-2N1-3

PART DESIGNATION: **VRD8-ANB-CDE**
Replace each underlined letter with a code.
A and B must be filled in. C, D, and E are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
Body Style		
B	1	1" Standard Cap
	6	2" High Resolution Cap
Body Material		
C		Brass (No Designation)
	3	303 Stainless Steel
Seal and Diaphragm Material		
D		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
E	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant



VRD8-1N1 (see website for additional drawings and 3D models).



SUGGESTED PORT DIMENSIONS

Ultra-Miniature Diaphragm Vacuum Relief Valve

DESCRIPTION

The VRV functions very much like a single-stage pressure regulator, except this modified design allows the user to set the outlet pressure below atmospheric pressure. The VRV would be placed in between a vacuum line and a positive pressure source. When the vacuum source downstream draws pressure in the line below a desired set pressure, the VRV will crack open, allowing positive pressure to enter the system.

Vacuum Control Range: The VRV will control vacuum from 0 psig (29.5 in-Hg) down to -12.7 psig (4 in-Hg).

Approximate Weight: 25g in 303 stainless steel. Weight will vary slightly, depending on configuration.

Porting: 10-32 internal threaded inlet and outlet port. Positive pressure source should be connected to the inlet (deeper) port.

VRV-3N1-3

MATERIAL

303 stainless steel body. 18-8 stainless steel springs in flow path.

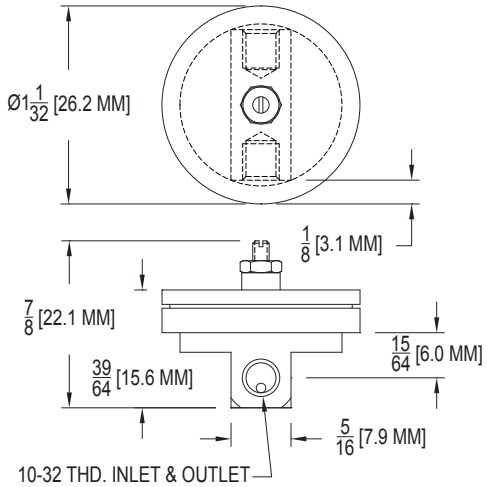
SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

PART DESIGNATION: **VRV-ANB-3CD**
Replace each underlined letter with a code.
A and B must be filled in. C and D are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut [1]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
Body Style		
B	1	1" Standard Cap
	2	1" Standard Cap with 10-32 Panel Mount
	6	2" High Resolution Cap
	7	2" High Resolution Cap with 15/32-32 Panel Mount
Seal and Diaphragm Material		
C		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
D	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hex lock nut on 2N2 configurations.

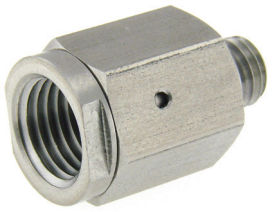


VRV-1N1-3 (see website for additional drawings and 3D models)

Gas Cylinder Pierce Fittings

DESCRIPTION

The GCP series fittings are designed to allow easy connection from 3/8-24 or 1/2-20 threaded compressed gas cylinders directly to the inlet port of a Beswick multi-stage regulator, like the PRD4HP. The fitting contains a pin, which pierces the gas cylinder upon connection. Both ends are sealed, to ensure a leak tight link.



MATERIAL

303 stainless steel.

SEALS

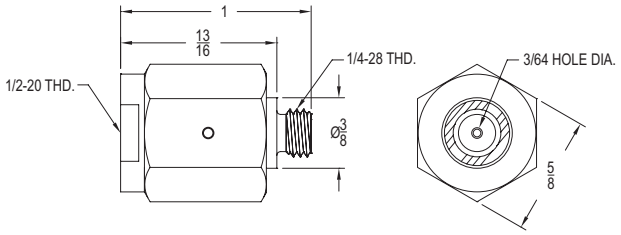
One urethane washer and one Buna-N O-ring seal. All configurations contain a urethane washer. Buna-N can be replaced with EPDM or Fluorocarbon.

NOTE: Minimum Thread length requirement on mating cylinder:
GCP-1412: 17/32"
GCP-1438: 3/8"
GCP-1038: 3/8"

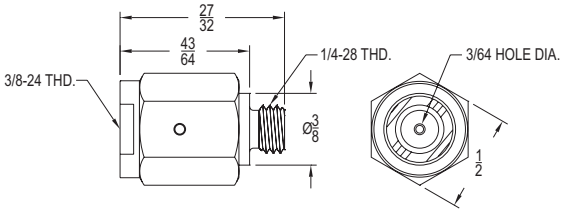
PART DESIGNATION: GCPAAAA-BBCC-3DE
Replace each underlined letter with a code.
BB and CC must be filled in. AAAA, D and E are optional.

Filter Element	Code	Description
AAAA		No Filter (No Designation)[1]
	F05	5 Micron Porous Metal Disc - Bronze
	F20	20 Micron Porous Metal Disc - Bronze
	F40	40 Micron Porous Metal Disc - Bronze
	F05-6	5 Micron Porous Metal Disc - 316 Stainless Steel
	F20-6	20 Micron Porous Metal Disc - 316 Stainless Steel
	F40-6	40 Micron Porous Metal Disc - 316 Stainless Steel
	S43-6	43 Micron Wire Mesh Screen - 316 Stainless Steel
External Thread		
BB	14	1/4-28
	10	10-32[2]
Internal Thread		
CC	38	3/8-24
	12	1/2-20
O-ring Seal Material[3]		
D		Buna (No Designation)[1]
	E	EPDM
	EB	Black EPDM
	V	Fluorocarbon
Special Options		
E	I	Instrument Cleaned
	K	Krytox
	IK	Instrument cleaned & Krytox Lubricant

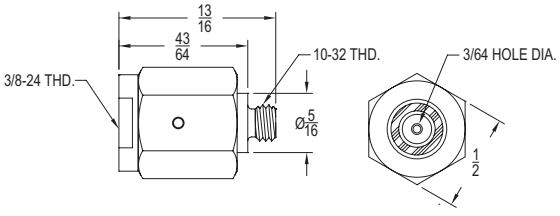
1 Standard configuration is Buna-N O-ring and No Filter. No code is needed to specify these options.
2 Only available with 3/8-24 internal thread (CC) option at this time.
3 O-ring seal only. All configurations also contain a urethane washer seal.



GCP-1412



GCP-1438



GCP-1038

Valve Types

Needle Valves
Beswick needle valves are an excellent choice for applications requiring precision or variable flow control. High flow and high resolution models are available.

Check Valves
Beswick miniature check valves allow free flow in one direction and no flow (checked) in the other. Low cracking pressure and adjustable cracking pressure configurations are available.

Flow Control Valves
Beswick in-line flow control valves feature fixed or variable orifices for precision control of liquid or gaseous media flow rates. Some versions contain an integral check valve for free return flow.

Award winning designs provide the best performance in the smallest package size (M3, 10-32 & 1/4-28 threaded ports). Machined from brass, aluminum, or corrosion resistant stainless steel and assembled with leak tight O-ring seals, these valves are suitable for a wide range of application conditions. All valves are incredibly small and light weight (most configurations are 2 to 25 grams).

Rapid Pressurization Valve
The RPV is used to protect a pneumatic actuator such as a chuck, press, or gripper from sudden bursts of high pressure. This allows the user to limit the impact that a work piece experiences, without sacrificing the rapid speed of a free flowing connection.

Slide Sleeve Valves
The MSV series slide sleeve valves are simple in-line on/off valves. They are actuated by sliding the knurled sleeve on the body forward or backward. Venting & non-venting configurations are available.

Relief Valves
Beswick RVD and RV2 series miniature relief valves are normally closed valves, which crack open on rising pressure. Factory preset and field adjustable configurations are available.

Ball Valves
Beswick's award winning stainless steel ball valve design is one of the smallest true ball valves available on the market. It is available in on/off, selector, and mixing and diverting configurations.

Multiport Rotary Selection Valve
Beswick multiport rotary selection valves feature one common inlet or outlet port, and anywhere from two to six selectable ports. The SV series is available with detents, for manual operation, or without detents, to operate from a servo motor (not supplied).

Stem Actuated Valves
The SAV is available as as a 2-way normally open, 2-way normally closed, or 3-way normally closed valve. The valve is actuated by depressing the stem. Push button and pilot actuators are available.

VALVES

Beswick ball valves, relief valves, and stem actuated valves are 100% tested before shipment. Award winning designs provide the best performance in the smallest package size (M3, 10-32 & 1/4-28 threaded ports). Machined from brass,aluminum, or corrosion resistant stainless steel and assembled with leak-tight O-ring seals, these valves are suitable for a wide range of application conditions. All valves are incredibly small and light weight (most configurations are 2 to 25 grams).

NOTE: Photos in this catalog are not actual size, For dimensions, please refer to the schematic drawings.

MINIATURE NEEDLE VALVES

Miniature Needle Valve - Elbow & Cartridge Style- 10-32 Thread

DESCRIPTION

The needle valve is an adjustable orifice which can be used to control flow rates, mini-cylinders, nozzles, timing circuits, filling heads, bleed vents, and in many other applications. The adjusted flow remains stable even during temperature fluctuations as the needle and valve seat are both manufactured from stainless steel.

Working Pressure Range: The NV is rated for a maximum inlet pressure of 500 psig. The metal to metal seal provides positive shut-off down to 25 in Hg (vacuum). Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

Effective Orifice:

- Standard Needle: 0" to 0.032" (0 to 0.8 mm). About 0 to 1 SCFM air flow at 50 psig.
- High Resolution Needle: 0" to 0.032" (0 to 0.8 mm). About 0 to 1 SCFM air flow at 50 psig. Especially well suited for control of low flow rates.
- High Flow Needle: 0" to 0.059" (0 to 1.5 mm). About 0 to 3 SCFM air flow at 50 psig.

Adjustment: All versions come equipped with a 2-56 threaded adjustment screw.

- About 2.25 revolutions of the adjustment screw from fully opened to fully closed with standard needle specified.
- About 8.25 revolutions of the adjustment screw from fully opened to fully closed with high resolution needle specified.
- About 3.25 revolutions of the adjustment screw from fully opened to fully closed with high flow needle specified.

Approximate Weight: 10g in brass and stainless steel (303 & 316). Weight will vary slightly, depending on configuration.

Porting: 10-32 external threaded inlet port. Many outlet configurations available. The valve body (elbow or tee) swivels 360 degrees to facilitate installation and orientation.

MATERIAL

Brass, ENP brass, 303 or 316 stainless steel body. All models have 316 stainless steel needle, 303 or 316 stainless steel stud and cap, stainless steel lock nut, and optional nickel plated brass or stainless steel knob.

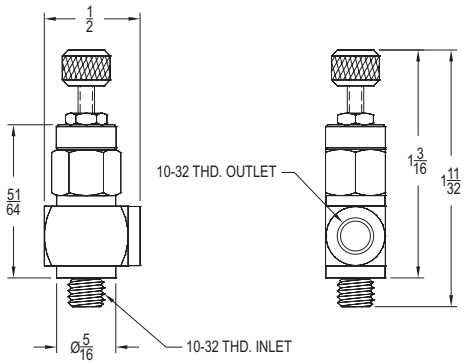
SEALS

Three Buna-N O-rings. Optional materials: EPDM, Fluorocarbon and Silicone. See page 11.

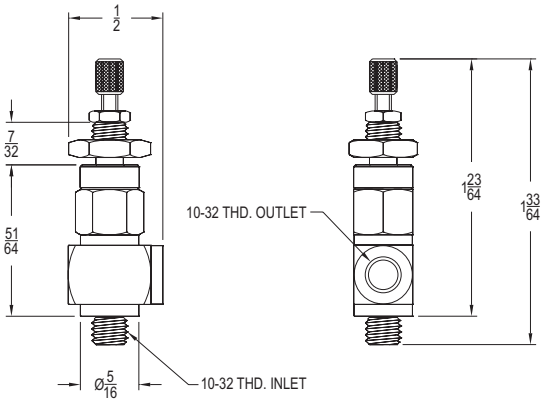
PART DESIGNATION: NVAB-CC-DE-FGH
Replace each underlined letter with a code.
A, CC and D must be filled in. B, E, F, G, and H are extra available options.

Valve Configuration	Code	Description
A	L	Elbow Style
	T	Tee Style
	C	Cartridge Style [1]
Needle Type		
B		Standard Needle (No Designation) [2]
	H	High Resolution Needle
	F	High Flow Stud/Body & Needle
Elbow Outlet		
CC	10	Internal 10-32 Thread [1] (Standard)
	1E	External 10-32 Thread
	12	1/16" ID Barb
	16	5/64" (2mm) ID Barb
	11	3/32" ID Barb
	13	1/8" ID Barb
	81	0.170"-3/16" ID Long Barb
	82	0.170"-3/16" ID Short Barb
	8S	1/8" OD Symmetrical Brass Compression
	8A	1/8" OD Asymmetrical Brass or Stainless Compression
Adjustment Style on Cap		
D	1	Slotted Screw with 3/16" hexagonal lock nut.
	2	Knurled Knob with 3/16" hexagonal lock nut. [3]
	3	Knurled Knob with 3/4" dia. knurled lock disc. [4]
	4	Slotted Screw with 3/4" dia. knurled lock disc.
Mounting Style		
E		No Special Mount (No Designation) [2]
	P	10-32 Panel Mount Thread
Body Material		
F		Brass (No Designation) [2]
	N	ENP Brass
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal Material		
G		Buna-N (No Designation) [2]
	V	Fluorocarbon
	E	EPDM
	S	Silicone
Special Options		
H	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

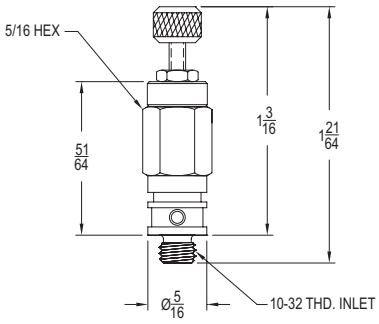
1 Cartridge needle valve always utilizes "10" designator for elbow outlet. Cartridge body is only available in 303 stainless steel.
2 Standard body material is brass and standard seal material is Buna-N. No code is needed to specify standard needle, no mounting, brass body, or Buna-N seals.
3 3mm hexagonal lock nut on 2P configuration.
4 Panel mount not recommended with type 3 adjustment style.



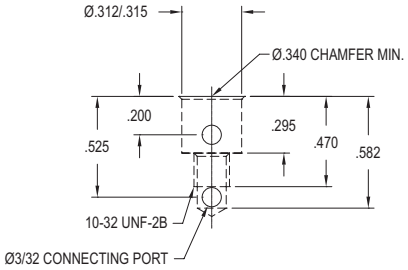
NVL-10-2-3



NVL-10-2P

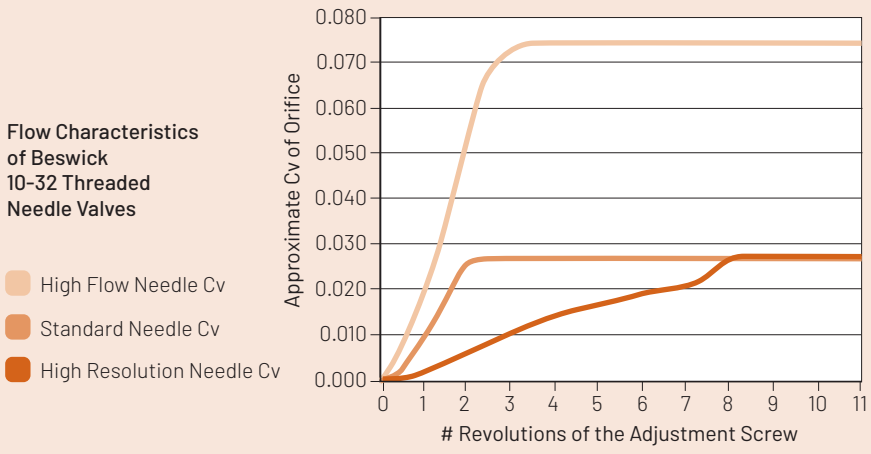


NVC-10-2-3



SUGGESTED PORT DIMENSIONS

Flow Characteristics of Beswick 10-32 Threaded Needle Valves



Miniature Needle Valve - Elbow & Cartridge Style - M3 Thread

DESCRIPTION

Beswick's smallest needle valve. The NV3 is a great choice for applications where space and/or weight savings is critical.

Working Pressure Range: The NV3 is rated for a maximum inlet pressure of 300 psig. The metal to metal seal provides positive shut-off down to 25 in Hg (vacuum). Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

Effective Orifice: 0" to 0.032" (0 to 0.8 mm) for both the standard and high resolution needles. About 0 to 1 SCFM air flow at 50 psig. The high resolution is especially well suited for control of low flow rates.

Adjustment: All versions come equipped with a 1-72 threaded adjustment screw. About 4 revolutions of the adjustment screw from fully opened to fully closed with standard needle specified. About 9 revolutions with high resolution needle specified.

Approximate Weight: 1.5 to 2g in brass and stainless steel (303 & 316). Weight will vary slightly, depending on configuration.

Porting: M3 external threaded inlet port. Many outlet configurations available. The valve body (elbow) swivels 360 degrees to facilitate installation and orientation.

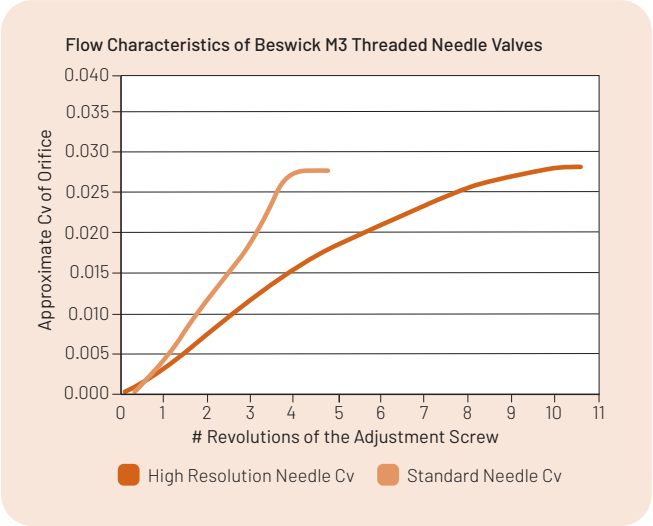
MATERIAL

Brass, 303 or 316 stainless steel body, with 303 or 316 stainless steel stud, and 316 stainless steel needle.

SEALS

Three Buna-N O-rings. Optional materials: EPDM, Fluorocarbon and Silicone.

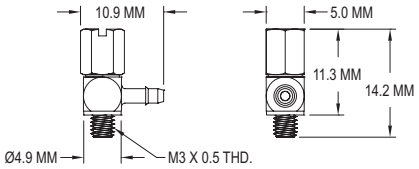
NOTE: NV3 adjustment screw is designed for use with flat head 3/32" or 2.5mm screwdriver.



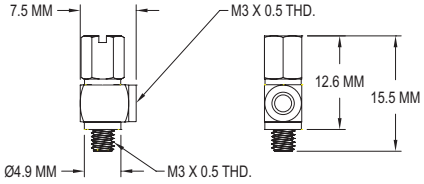
PART DESIGNATION: NV3AB-CCCC-DEF
Replace each underlined letter with a code.
CCCC must be filled in. A, B, D, E and F are extra available options.

Body Configuration	Code	Description
A		Elbow Style (No Designation) [1]
	T	Tee Style [2]
	C	Cartridge Style [3]
Needle Type		
B		Standard Needle (No Designation) [1]
	H	High Resolution Needle [4]
Elbow Outlet		
CCCC	1132	3/32" ID Barb
	1016	5/64" (2mm) ID Barb
	1012	1/16" ID Barb
	M3I	M3 Internal Thread
	M3	For use with Cartridge Style Body Configuration Only [3]
Body Material		
D		Brass (No Designation) [1]
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal Material		
E		Buna-N (No designation) [1]
	V	Fluorocarbon
	E	EPDM
	S	Silicone
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

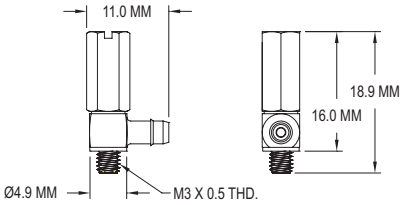
1 Standard body is brass elbow, and standard seal material is Buna-N. No designation is required for the brass elbow body, Buna-N seals, or standard needle.
2 At this time the tee style is only available with the 1012 or M3I threaded outlet configuration.
3 Cartridge needle valve always utilizes "M3" designator for elbow outlet. Cartridge body is only available in 303 stainless steel.
4 High resolution needle is not available in 316 stainless steel at this time.



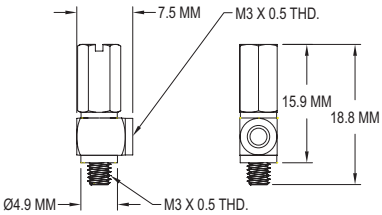
NV3-1132, NV3-1016, NV3-1012



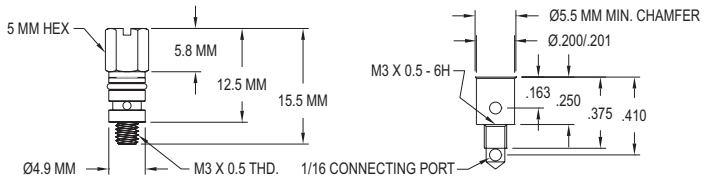
NV3-M3I



NV3H-1132, NV3H-1016, NV3H-1012



NV3H-M3I



SUGGESTED PORT DIMENSIONS

NV3C-M3-3

NEW Miniature In-Line Needle Valve - M3 Thread

DESCRIPTION

The NV3I provides performance similar to the NV3 90 degree and cartridge mount style needle valves, but in a convenient in-line configuration.

Working Pressure Range: The NV3I is rated for a maximum inlet pressure of 1,000 psig. The metal to metal seal provides a positive shut-off down to 25 in HG (vacuum).

Effective Orifice: 0" to .028" (0 to 0.7mm). About 0 to 0.67 SCFM air flow at 50 psig.

Adjustment: All versions come equipped with a 1-72 threaded adjustment screw. About 4 revolutions of the adjustment screw from fully opened to fully closed.

Approximate Weight: 4g.

Porting: M3 internal threaded inlet and outlet ports.

Mounting: All models are supplied with a 1/4-28 thread, 3/8" hex nut, and lock washer for panel mounting.

MATERIAL

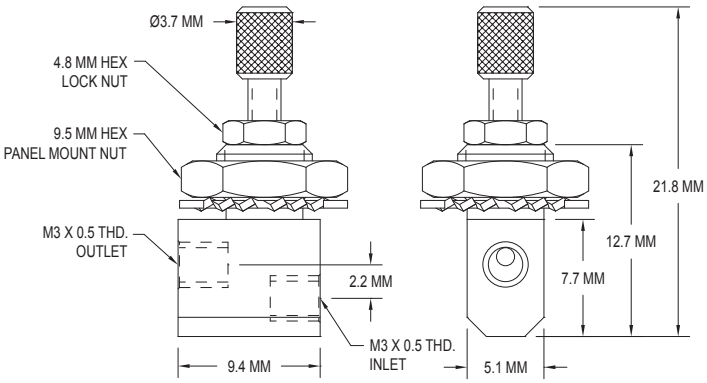
303 stainless steel.

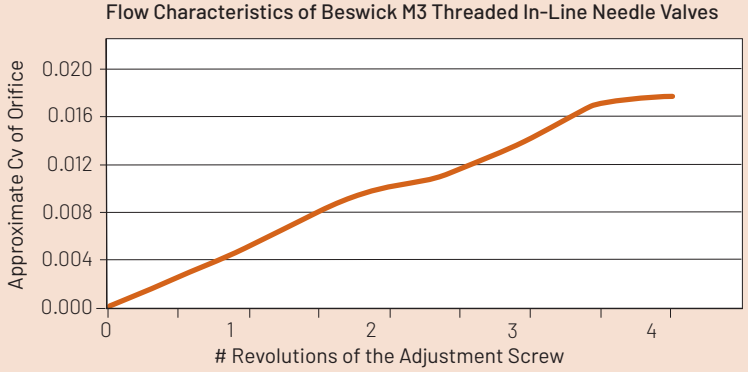
SEALS

Buna-N O-ring standard. Optional Materials: EPDM, Fluorocarbon, and Silicone. See page 11.

PART DESIGNATION: **NV3I-M3-A-3BC**
Replace each underlined letter with a code.
A must be filled in. B and C are extra available options.

Adjustment Style	Code	Description
A	1	Slotted Screwdriver Adjustment
	2	Knurled Knob Adjustment
O-ring Seal Material		
B		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
	S	Silicone
Special Options		
C	I	Instrument Cleaned
	K	Krytox Lubricant
	IK	Instrument Cleaned & Krytox Lubricant





Adjustable Cracking Pressure Check Valve -10-32 Thread

DESCRIPTION

The Beswick CKVA is a poppet style check valve with adjustable cracking pressure range of 1 to 40 psig.

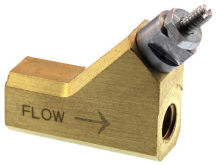
Maximum Back Pressure: 250 psig
Effective Orifice: Approximately 1/32" (0.8 mm)
Approximate Weight: 12.2g in brass and stainless steel.
Porting: 10-32 internal threaded inlet and outlet ports.

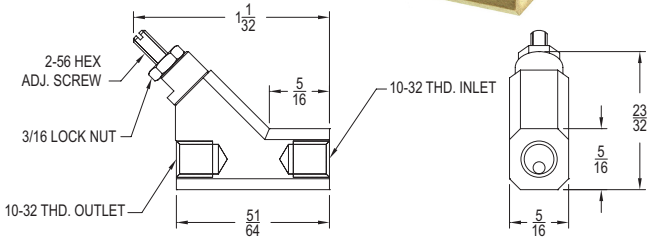
MATERIAL

Brass, 303 or 316 stainless steel.

SEALS

Buna-N. Optional Materials: EPDM and Fluorocarbon. See page 11.





Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless
CKVA-10-1	CKVA-10-1-303	CKVA-10-1-316

NEW Check Valve - High Flow & Low Cracking Pressure - 3/8" Hex Body

DESCRIPTION

The CKV38 series check valve permits free flow in one direction and no flow (checked) in the opposite direction. This valve is specified in many applications because of its very low cracking pressure (typically less than 0.5 psig), its excellent repeatability, and leak-tight operation.

Maximum Back Pressure: 100 psig
Effective Orifice: Approximately 5/64" (2 mm)
Approximate Weight: 9g in stainless steel (303 & 316).
Porting: 1/4-28 internal or external threaded inlet and outlet ports.

NOTE: Check valve elements are typically actuated by reverse pressure and are best suited for applications with over 5 psi of back pressure. If the valve is required to check with minimal back pressure, contact a Beswick applications engineer to discuss available options.

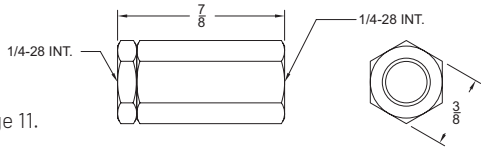
Check valve elements are designed for regular use. If the valve is not used for an extended period of time, the duckbill element may stick upon first use, resulting in a one-time higher cracking pressure requirement.

MATERIAL

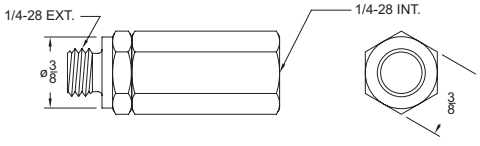
303 or 316 stainless steel.

SEALS

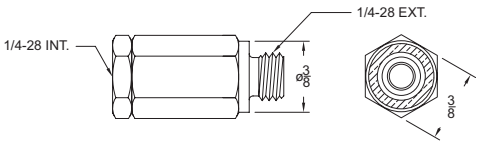
Silicone duckbill and O-rings. Optional Materials: EPDM and Fluorocarbon. See page 11.



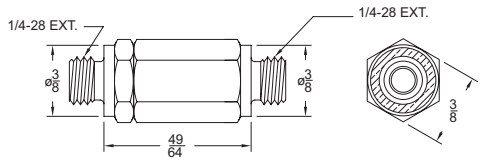
CKV38-14F-14F-C



CKV38-14M-14F-C



CKV38-14F-14M-C



CKV38-14M-14M-C

PART DESIGNATION: **CKV38-AAA-BBB-CDE**
Replace each underlined letter with a code.
AAA, BBB, CCC, and D must be filled in. E is optional.

Inlet Connection	Code	Description
AAA	14M	1/4-28 Male
	14F	1/4-28 Female
Outlet Connection		
BBB	14M	1/4-28 Male
	14F	1/4-28 Female
Body Material		
C	3	303 Stainless Steel
	6	316 Stainless Steel
Duckbill & Seal Material		
D	S	Silicone
	V	Fluorocarbon
	E	EPDM
Special Options		
E	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

NOTE: Barbed and 10-32 threaded configurations coming soon. See website for details.

Check Valve - Low Cracking Pressure - 5/16" Hex Body

DESCRIPTION

The CKV series check valve permits free flow in one direction and no flow (checked) in the opposite direction. This valve is specified in many applications because of its very low cracking pressure (typically less than 0.5 psig), its excellent repeatability, and leak-tight operation.

Working Pressure Range: The unique design of the check valve housing permits the valve to handle back pressure up to 250 psig. Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing. Barbed configurations with optional inlet filter are limited to 50 psig max back pressure.

Effective Orifice: Approximately 0.035" to 0.040" without filter installed.

Approximate Weight: 6-8g in brass and stainless steel (303 & 316). Weight will vary slightly, depending on configuration.

Porting: 10-32 internal thread, 10-32 external thread, or barbed ports.

NOTE: Check valve elements are typically actuated by reverse pressure and are best suited for applications with over 5 psig of back pressure. If the valve is required to check with minimal back pressure, contact a Beswick applications engineer to discuss available options.

Check valve elements are designed for regular use. If the valve is not used for an extended period of time, the duckbill element may stick upon first use, resulting in a one-time higher cracking pressure requirement.

MATERIAL

Brass, 303 or 316 stainless steel body, with optional bronze or 316 stainless steel filter element.

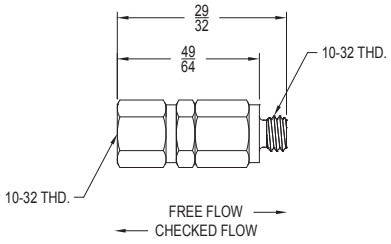
SEALS

Buna-N. Optional Materials: Silicone, EPDM, and Fluorocarbon.

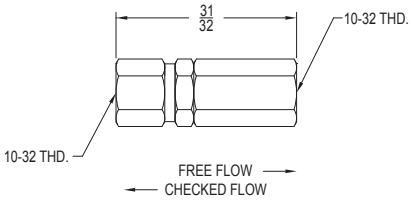
PART DESIGNATION: CKVAAA-B-CC-DD-EEE-F-GGGHI
Replace each underlined letter with a code.
CC and DD must be filled in. All others are extra available options.

Inlet Filter	Code	Description
AAA		No inlet filter (No Designation)
	F05	5 micron sintered filter
	F20	20 micron sintered filter
	F40	40 micron sintered filter
	S43	43 micron screen filter[1]
Inlet Filter Material		
B		Bronze, or no filter (No Designation)
	6	316 Stainless Steel
Inlet Porting		
CC	10F	10-32 internal thread
	10M	10-32 external thread
	81	Barb for 0.170"-3/16" (4.5mm) ID tubing
	13	Barb for 1/8" (3.2mm) ID tubing
	11	Barb for 3/32" (2.4mm) ID tubing
	16	Barb for 5/64" (2.0 mm) ID tubing
	12	Barb for 1/16" (1.6mm) ID tubing
Outlet Porting		
DD	10F	10-32 internal thread
	10M	10-32 external thread
	81	Barb for 0.170"-3/16" (4.5mm) ID tubing
	13	Barb for 1/8" (3.2mm) ID tubing
Outlet Filter		
EEE		No outlet filter (No Designation)
	F05	5 micron sintered filter
	F20	20 micron sintered filter
	F40	40 micron sintered filter
	S43	43 micron screen filter[1]
Outlet Filter Material		
F		Bronze, or no filter (No Designation)
	6	316 Stainless Steel
Body Material		
GGG		Brass (No Designation)
	303	303 Stainless Steel
	316	316 Stainless Steel
Duckbill & Seal Material		
H		Buna-N (No designation)
	V	Fluorocarbon
	E	EPDM
	S	Silicone
Special Options		
I	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

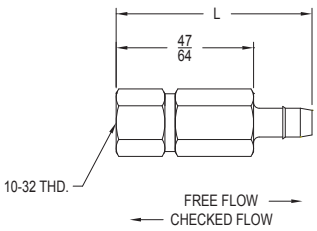
1 43 Micron Screen is only available in 316 SS.



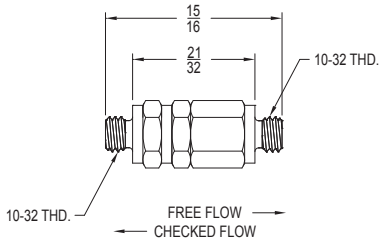
CKV-10F-10M



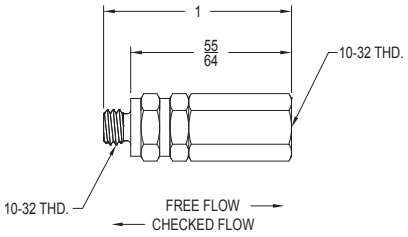
CKV-10F-10F



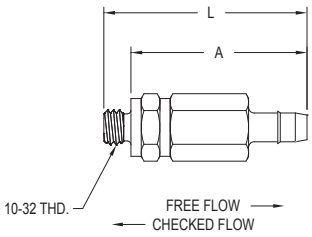
CKV-10F-81, L=1 13/64
CKV-10F-13, L=1 3/64



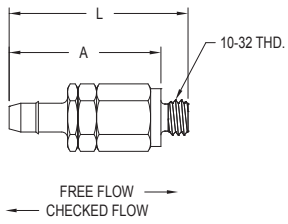
CKV-10M-10M



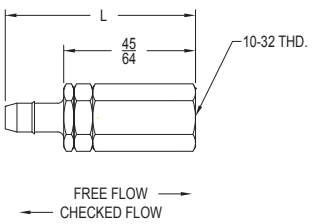
CKV-10M-10F



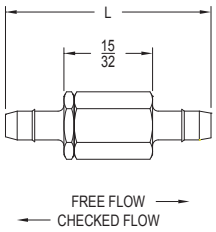
CKV-10M-81, L=1 1/4, A=1 3/32
CKV-10M-13, L=1 3/32, A=15/16



CKV-81-10M, L=1 7/64, A=31/32
CKV-13-10M, L=61/64, A=13/16
CKV-11/12/16-10M, L=55/64, A=23/32



CKV-81-10F, L=1 11/64
CKV-13-10F, L=1 1/64
CKV-11/12/16-10F, L=59/64



CKV-81-81, L=1 27/64
CKV-81-13, L=1 1/4
CKV-13-81, L=1 1/4
CKV-13-13, L=1 3/32
CKV-11/12/16-81, L=1 11/64
CKV-11/12/16-13, L=1

Check Valve - Low Cracking Pressure - 5mm Hex Body

DESCRIPTION

This Ultra Miniature low cracking pressure check valve permits free flow in one direction and no flow (checked) in the opposite direction. This valve is specified in many applications because of its very low cracking pressure (typically less than 0.5 psig), its excellent repeatability, and leak-tight operation.

Working Pressure Range: The unique design of the check valve housing permits the valve to handle a back pressure of up to 250 psig. Barbed configurations are limited to 100 psig, when used with appropriately sized polyurethane tubing. With a clamp installed, the limiting factor generally becomes the burst pressure of the tubing.

Approximate Weight: 1.5g to 2g in brass and stainless steel (303 & 316). Weight will vary slightly, depending on configuration.

Effective Orifice: Approximately 0.035" to 0.040".

Porting: M3 internal thread, M3 external thread, or barbed ports. Many configurations available. Custom variations of barbed and threaded bodies are available, as well as variations with built-in screen filters or sintered metal filters. Contact the factory for details.

NOTE: Check valve elements are typically actuated by reverse pressure and are best suited for applications with over 5 psig of back pressure. If the valve is required to check with minimal back pressure, contact a Beswick applications engineer to discuss available options.

NOTE: Check valve elements are designed for regular use. If the valve is not used for an extended period of time, the duckbill element may stick upon first use, resulting in a one-time higher cracking pressure requirement.

MATERIAL

Brass, 303 or 316 stainless steel.

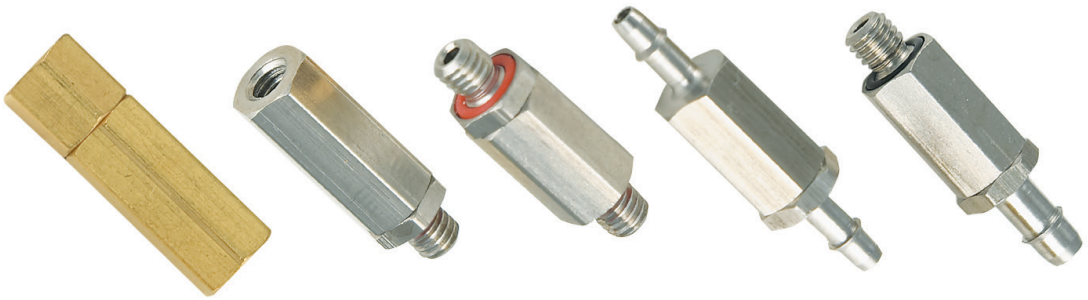
SEALS

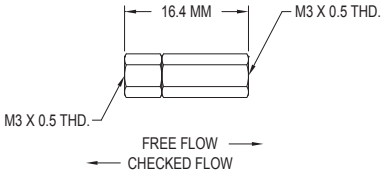
Silicone. Optional materials: EPDM, Fluorocarbon, and FFKM (Perfluoroelastomer). FFKM available only for CKV-M3FM3F, CKV-M3FM3F-303, CKV-XX-M3F-303, CKV-M3F-XX-303, and CKV-M3-XX-XX-303.

PART DESIGNATION: CKV-AA-BBB-CCC-DDD-EF
Replace each underlined letter with a designator. BBB and CCC must be filled in. AA, DDD, E and F are extra available options.

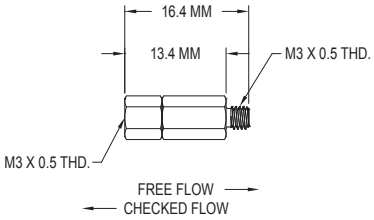
Port Configuration	Code	Description
AA		At Least One M3 Threaded Port (No Designation)
	M3	Barb to Barb
Inlet Port Connection		
BBB	M3M	M3 Male Thread[1]
	M3F	M3 Female Thread
	13	1/8" (3.2mm) ID Tube Barb
	11	3/32" (2.4mm) ID Tube Barb
	16	5/64" (2.0mm) ID Tube Barb
	12	1/16" (1.6mm) ID Tube Barb
Outlet Port Connection		
CCC	M3M	M3 Male Thread
	M3F	M3 Female Thread
	13	1/8" (3.2mm) ID Tube Barb
	11	3/32" (2.4mm) ID Tube Barb
	16	5/64" (2.0mm) ID Tube Barb
	12	1/16" (1.6mm) ID Tube Barb
Body Material		
DDD		Brass (No Designation)[2]
	303	303 Stainless Steel
	316	316 Stainless Steel[3]
Duckbill and O-ring Material		
E		Silicone (No Designation)
	E	EPDM
	V	Fluorocarbon
	F	FFKM[4]
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	IX	Instrument Cleaned & No Lubrication

1 Also available with integral 20 micron 316 stainless steel filter element. Contact factory for details.
2 We currently only stock M3M and M3F port configurations in brass. Other configurations may have extended lead times.
3 We do not currently stock port configurations 11 or 16 in 316 stainless steel. These configurations may have extended lead times.
4 FFKM seal option is currently available with barbed or M3F port types.

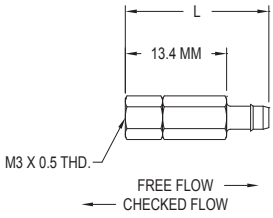




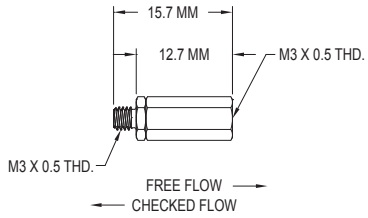
CKV-M3F-M3F



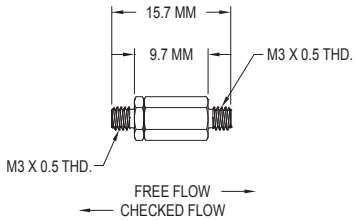
CKV-M3F-M3M



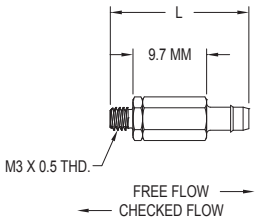
CKV-M3F-13, L=21.4 MM
CKV-M3F-11/12/16, L=19.0 MM



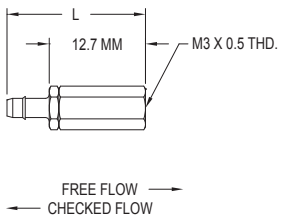
CKV-M3M-M3F



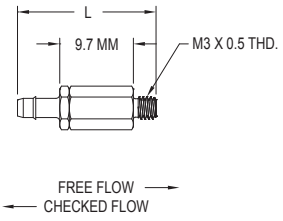
CKV-M3M-M3M



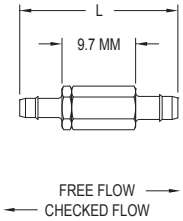
CKV-M3M-13, L=20.7 MM
CKV-M3M-11/12/16, L=18.3 MM



CKV-13-M3F, L=20.7 MM
CKV-11/12/16-M3F, L=18.3 MM



CKV-13-M3M, L=20.7 MM
CKV-11/12/16-M3M, L=18.3 MM



CKV-13-11/12/16, L=23.3 MM
CKV-11/12/16-11/12/16, L=20.9 MM
CKV-13-13, L=25.7 MM

Twist Sleeve Metering Valve

DESCRIPTION

The Beswick MIL-MV series metering valve contains an adjustable orifice. The orifice meters fluid flow, regardless of flow direction through the valve. The O-ring seals fit to make the valve insensitive to vibration, preventing inadvertent changes to the setting.

Working Pressure Range: The MIL-MV is rated for a maximum pressure of 200 psig.

Effective Orifice: The maximum effective orifice should be selected from the options below (0.011" to 0.055", or 0.28mm to 1.4mm), based on the approximate maximum flow needed in the application. All configurations are adjustable down to a fully closed bubble-tight shut off.

Adjustment: The knurled sleeve rotates 360 degrees and is restricted from sliding axially. An O-ring is fitted into an eccentric cavity within the valve, in the same plane as the radial inlet orifice. This O-ring is pressed against the radial inlet orifice when the valve is closed and becomes free of the hole as the sleeve rotates.

Approximate Weight: 16g in brass and 303 stainless. Weight will vary slightly, depending on configuration.

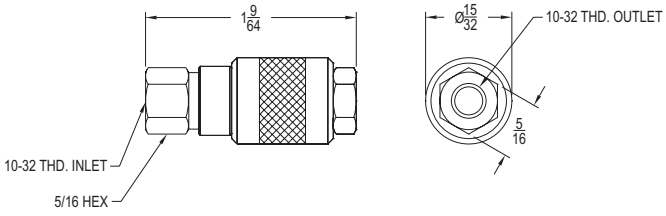
Porting: 10-32 threaded inlet and outlet ports.

MATERIAL

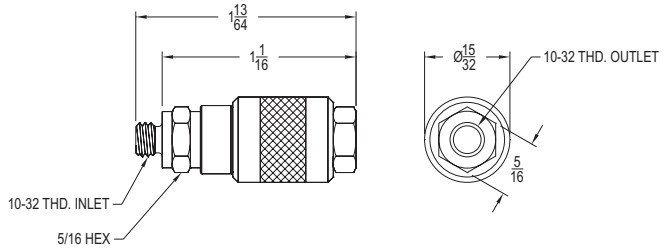
Brass or 303 stainless steel.

SEALS

Five Buna-N O-rings for MIL-MV-XX models. Four Buna-N O-rings for MIL-MV-XX-10 models. Optional Materials: EPDM, Fluorocarbon, and Silicone. See page 11.



MIL-MV-XX-10



MIL-MV-XX

Part Number Brass	Part Number 303 Stainless	Nominal Orifice Diam. (at max flow setting)	Inlet Fitting
MIL-MV-11	MIL-MV-11-303	.011	10-32 external
MIL-MV-11-10	MIL-MV-11-10-303	.011	10-32 internal
MIL-MV-22	MIL-MV-22-303	.022	10-32 external
MIL-MV-22-10	MIL-MV-22-10-303	.022	10-32 internal
MIL-MV-33	MIL-MV-33-303	.033	10-32 external
MIL-MV-33-10	MIL-MV-33-10-303	.033	10-32 internal
MIL-MV-44	MIL-MV-44-303	.044	10-32 external
MIL-MV-44-10	MIL-MV-44-10-303	.044	10-32 internal
MIL-MV-55	MIL-MV-55-303	.055	10-32 external
MIL-MV-55-10	MIL-MV-55-10-303	.055	10-32 internal

Twist Sleeve Flow Control Valve

DESCRIPTION

The Beswick MIL-FC contains an adjustable orifice and check valve. The orifice meters flow in the forward direction, while the check valve permits free return flow. Check valve cracks at < 15 psig. This valve is particularly well suited for control of small bore air cylinders. The O-ring seals fit to make the valve insensitive to vibration, preventing inadvertent changes to the setting.

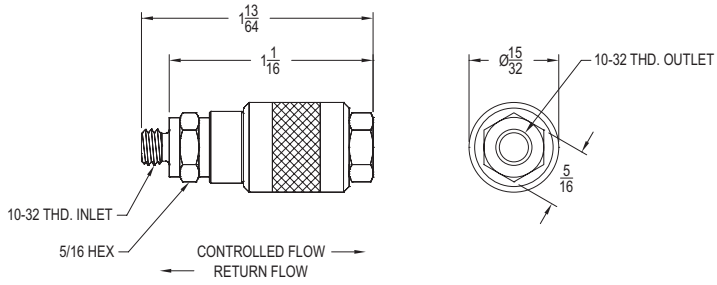
Working Pressure Range: The MIL-FC is rated for a maximum pressure of 200 psig.

Effective Orifice: The maximum effective orifice should be selected from the options below (0.011" to 0.055", or 0.28mm to 1.4mm), based on the approximate maximum metered flow needed in the application. All configurations are adjustable down to a fully closed bubble-tight shut off.

Adjustment: The knurled sleeve rotates 360 degrees and is restricted from sliding axially. An O-ring is fitted into an eccentric cavity within the valve, in the same plane as the radial inlet orifice. This O-ring is pressed against the radial inlet orifice when the valve is closed and becomes free of the hole as the sleeve rotates.

Approximate Weight: 16g in brass and 303 stainless. Weight will vary slightly, depending on configuration.

Porting: 10-32 external threaded inlet and 10-32 internal threaded outlet ports.



MATERIAL

Brass or 303 stainless steel.

SEALS

Five Buna-N O-rings and one Buna-N ball. Optional Materials: No options in stock. See page 11.

Part Number Brass	Part Number 303 Stainless	Nominal Orifice Diam. (at max flow setting)
MIL-FC-11	MIL-FC-11-303	.011
MIL-FC-22	MIL-FC-22-303	.022
MIL-FC-33	MIL-FC-33-303	.033
MIL-FC-44	MIL-FC-44-303	.044
MIL-FC-55	MIL-FC-55-303	.055

Fixed Orifice Flow Control Valve - Tamper Proof

DESCRIPTION

The Beswick MIL-FOFC contains a factory pre-set orifice and check valve. The orifice meters flow in the forward direction, while the check valve permits free return flow. Check valve cracks at < 15 psig. This valve is ideal for applications where improper adjustment of a flow setting could damage the machine or process.

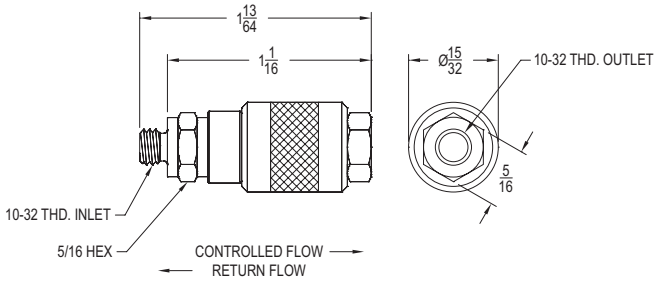
Working Pressure Range: The MIL-FOFC is rated for a maximum pressure of 200 psig.

Effective Orifice: Standard orifice sizes available from 0.004" to 0.0292" (0.1mm to 0.74mm). Other orifice sizes also available upon request.

Adjustment: The orifice within this valve is factory pre-set. Rotation of the knurled sleeve will not change the orifice setting.

Approximate Weight: 16g in brass and 303 stainless. Weight will vary slightly, depending on configuration.

Porting: 10-32 external threaded inlet and 10-32 internal threaded outlet ports.



MATERIAL

Brass or 303 stainless steel.

SEALS

Four Buna-N O-rings and one Buna-N ball. Optional Materials: No options in stock.

Part Number Brass	Part Number 303 Stainless	Orifice Diam. (in inches)[1]
MIL-FOFC-004	MIL-FOFC-004-303	.004
MIL-FOFC-005	MIL-FOFC-005-303	.005
MIL-FOFC-006	MIL-FOFC-006-303	.006
MIL-FOFC-007	MIL-FOFC-007-303	.007
MIL-FOFC-008	MIL-FOFC-008-303	.008
MIL-FOFC-009	MIL-FOFC-009-303	.009
MIL-FOFC-010	MIL-FOFC-010-303	.010
MIL-FOFC-011	MIL-FOFC-011-303	.011
MIL-FOFC-012	MIL-FOFC-012-303	.012
MIL-FOFC-014	MIL-FOFC-014-303	.014
MIL-FOFC-016	MIL-FOFC-016-303	.016
MIL-FOFC-018	MIL-FOFC-018-303	.018
MIL-FOFC-020	MIL-FOFC-020-303	.020
MIL-FOFC-025	MIL-FOFC-025-303	.025
MIL-FOFC-0292	MIL-FOFC-0292-303	.029

[1] Other orifice sizes are available upon request.

NEW Rapid Pressurization Valve

DESCRIPTION

The RPV is used to protect a pneumatic actuator such as a chuck, press, or gripper from sudden bursts of high pressure. The internal needle valve restricts the initial movement of the actuator to a user defined speed, and then opens up upon sensing back pressure. This allows the user to limit the impact that a work piece experiences when it is clamped down upon without sacrificing the pressurization speed of an open, free flowing connection.

Maximum Pressure Range: Maximum supply pressure is 250 psig.

Approximate Weight: 57g in stainless steel. Weight will vary slightly, depending on configuration.

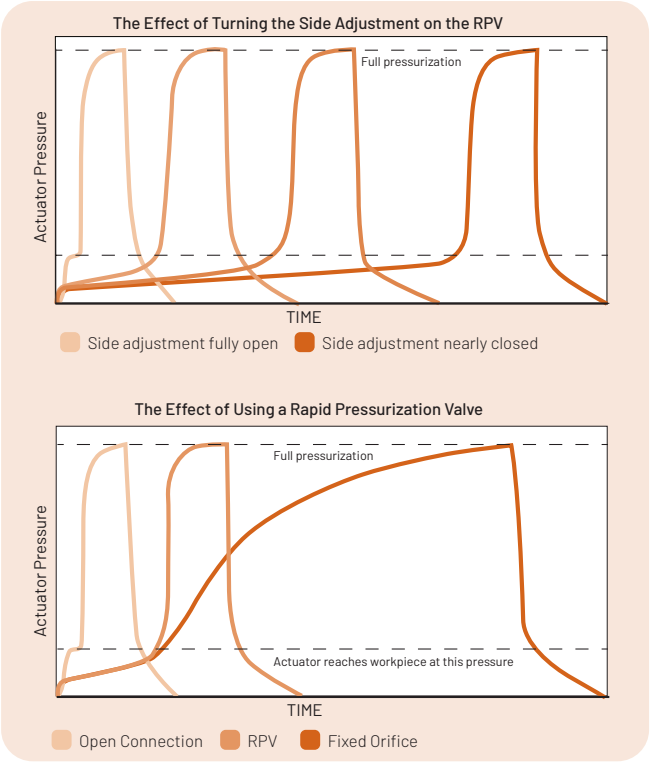
Porting: 10-32 female threaded inlet and outlet ports.

MATERIAL

303 stainless steel.

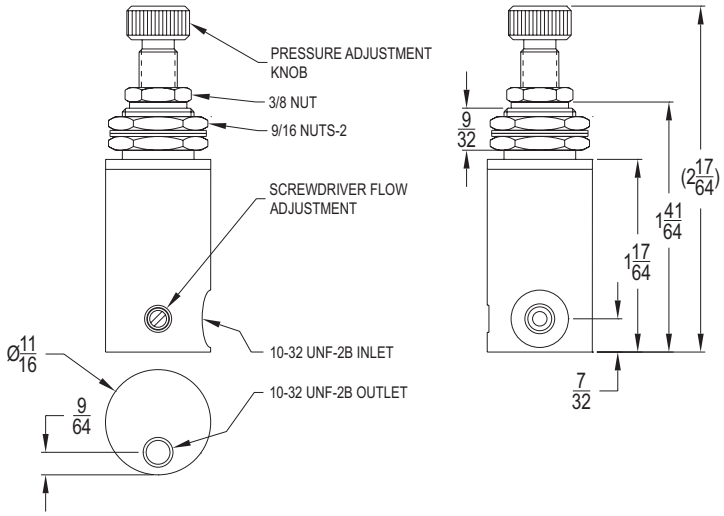
SEALS

Fluorocarbon seals. Optional material: EPDM.



PART DESIGNATION: **RPV-1010-A-1-3BC**
Replace each underlined letter with a code.
A and B must be filled in. C is optional.

Opening Pressure Adjustment	Code	Description
A	1	Knurled Knob with 3/8" hexagonal lock nut
	5	Internal 5/64" Hex Key Adjustment
	7	3/8" Hex Adjustment with 3/8" hexagonal lock nut
Seal Material		
B	V	Fluorocarbon
	E	EPDM
Special Options		
C	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant



SLIDE SLEEVE VALVES

Non-Venting Slide Sleeve Valve - M3 Thread

DESCRIPTION

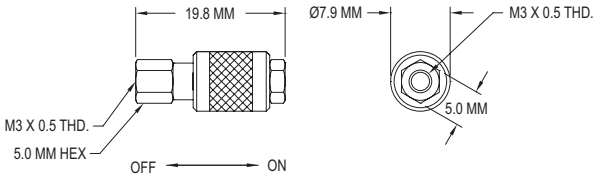
The M3SV series ultra miniature M3 threaded non-venting slide sleeve valve is another addition to Beswick's growing M3 product line. It provides efficient control (on/off) of gas or liquid in an in-line configuration. The valve can be attached directly in a fluid circuit and does not require panel mounting. The valve is a 2-way (non-venting) device. There is no preferred flow direction. The inlet can be through either M3 internal threaded port.

Working Pressure Range: The M3SV is rated for a maximum pressure of 250 psig.

Effective Orifice: Approximately 0.024" to 0.028" (0.6mm to 0.7mm).

Approximate Weight: 4.25g in brass and 303 stainless.

Porting: M3 internal threaded inlet and outlet ports.



MATERIAL

Brass or 303 stainless steel.

SEALS

Four Buna-N O-rings. Optional materials: EPDM, Fluorocarbon and Silicone. See page 11.

NOTE: A barbed inlet is available upon request. Consult the factory for more information.

Part Number Brass	Part Number 303 Stainless
M3SV-N	M3SV-N-303

[1] Other orifice sizes are available upon request.

Venting Slide Sleeve Valve - 10-32 Thread

DESCRIPTION

The MSV series slide sleeve valve provides an efficient in-line three-way valve. When the sleeve is moved to the "ON" position, fluid is allowed to pass through the valve. When the sleeve is moved to the "OFF" position, the outlet is exhausted to the atmosphere and fluid is prevented from passing through the valve. The valve can be attached directly on a device to be isolated and does not require mounting.

Working Pressure Range: The MSV is rated for a maximum pressure of 200 psig.

Effective Orifice: Approximately 0.039" to 0.042" (1.0mm to 1.1mm).

Approximate Weight: 15g in brass and 303 stainless. Weight will vary slightly, depending on configuration.

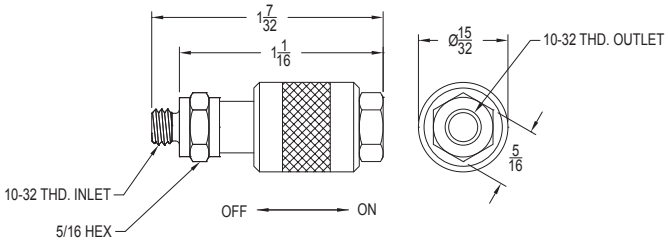
Porting: 10-32 internal, 10-32 external, or barbed inlet port, 10-32 internal threaded outlet port.

MATERIAL

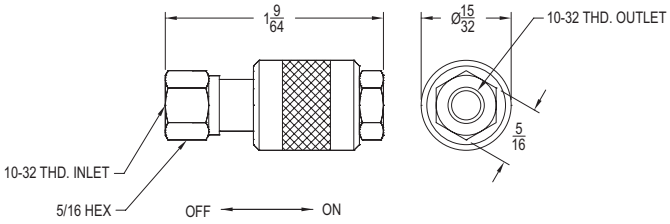
Brass or 303 stainless steel.

SEALS

Buna-N O-rings. Optional Materials: EPDM, Fluorocarbon, and Silicone. See page 11.



MSV-10F10M



MSV-1010

Part Number Brass	Part Number 303 Stainless	Inlet Port	Outlet Port
MSV-1008		Barb Fitting (for .170 to 3/16 tubing)	10-32 internal
MSV-1010	MSV-1010-303	10-32 internal	10-32 internal
MSV-10F10M	MSV-10F10M-303	10-32 external	10-32 internal

Non-Venting Slide Sleeve Valve - 10-32 Thread

DESCRIPTION

The non-venting slide sleeve valve provides an efficient in-line on/off valve. When the sleeve is moved to the "ON" position, fluid is allowed to pass through the valve. When the sleeve is moved to the "OFF" position, fluid is prevented from exiting the outlet port. The valve can be attached directly on a device to be isolated and does not require mounting. The valve is a 2-way (non-venting) device. There is no preferred flow direction. The inlet can be through either 10-32 threaded port.

Working Pressure Range: The MSV-N is rated for a maximum pressure of 500 psig.

Effective Orifice: Approximately 0.039" to 0.042" (1.0mm to 1.1mm).

Approximate Weight: 17g in brass and 303 stainless. Weight will vary slightly, depending on configuration.

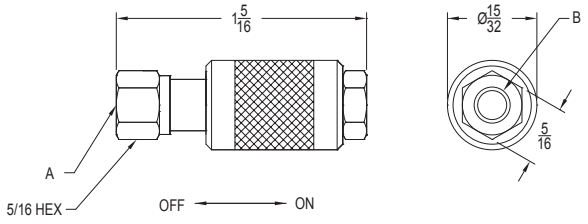
Porting: 10-32 internal, or 10-32 external threaded port A, 10-32 internal threaded port B.

MATERIAL

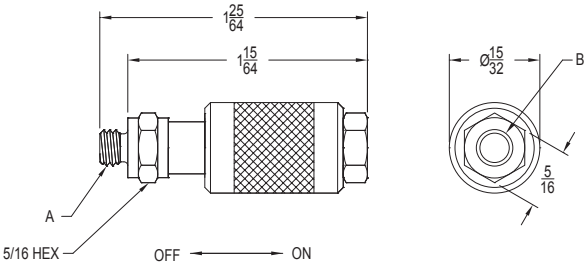
Brass or 303 stainless steel.

SEALS

Buna-N O-rings. Optional materials: EPDM, Fluorocarbon, Silicone, FFKM, and Fluorosilicone. See page 11.



MSV-N-1010



MSV-N-10F10M

Part Number Brass	Part Number 303 Stainless	Port A	Port B
MSV-N-1010	MSV-N-1010-303	10-32 internal	10-32 internal
MSV-N-10F10M	MSV-N-10F10M-303	10-32 external	10-32 internal

In-Line, Diaphragm Relief Valve

DESCRIPTION

Beswick's miniature diaphragm relief valve is an excellent choice for applications requiring a valve which opens on rising pressure. Design offers compactness, light weight and high accuracy.

Maximum Source Pressure: 80 psig.

Cracking Pressure Range: Recommended for cracking pressures in the 3 to 50 psig range.

Approximate Weight: 25g in brass and stainless steel (303 & 316), 15g in aluminum. Weight will vary slightly, depending on configuration.

Porting: 10-32 internal threaded inlet and outlet ports.

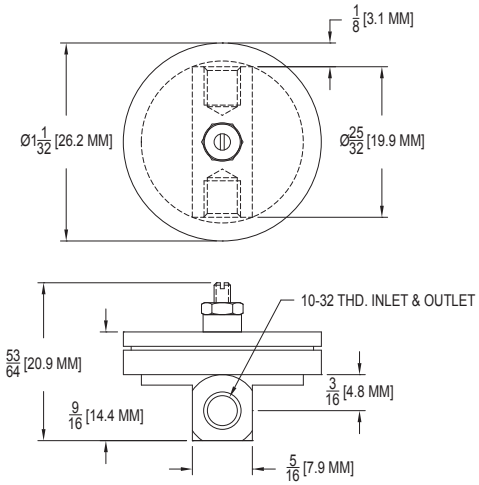
MATERIAL

Brass, aluminum, 303 or 316 stainless steel body.18-8 stainless steel spring in flow path.

SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon. See page 11.

RVD-3N1-C



RVD-1N1-C (see website for additional drawings and 3D models).

PART DESIGNATION: **RVD-ANB-C-DEF**
Replace each underlined letter with a code.
A, B, and C must be filled in. D, E, and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut[1]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
	5	Internal 5/64" Hex Key Adjustment[2]
	6	Micro Adjustment Knob[2]
	7	3/8" Hex Adjustment Knob[2]
Body Style		
B	1	1" Standard Cap
	2	1" Standard Cap with 10-32 Panel Mount
	3	1" Standard Cap with 15/32-32 Panel Mount
	4	1" Standard Cap with M3 External Reference Port
	6	2" High Resolution Cap[3]
	7	2" High Resolution Cap With 15/32-32 Panel Mount[3]
	8	2" High Resolution Cap With Coil Spring
	9	1" Coil Spring Cap
Cracking Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
	4	0-40 psi[4]
	5	0-50 psi[4]
Body Material		
D		Brass (No Designation)
	A	Aluminum
	3	303 Stainless Steel
	6	316 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 3mm hex lock nut on 2N2 configurations.
2 Adjustment Style 5, 6, and 7, can only be selected in conjunction with a coil spring cap (body style 8 or 9).
3 Max cracking pressure range is 10 psig with this cap.
4 A coil spring cap is required with 0-40 psig and 0-50 psig outlet range.

Manifold Mount Diaphragm Relief Valve

DESCRIPTION

Beswick's RVD8 series miniature diaphragm relief valve is an excellent choice for applications requiring a valve which opens on rising pressure. Design offers compactness, light weight and high accuracy. Performance is similar to the RVD series.

Features: Manifold mount configuration.

Maximum Source Pressure: 80 psig.

Cracking Pressure Range: Recommended for cracking pressures in the 3 to 50 psig range. The large diaphragm sensing area and frictionless design make it especially well suited for low cracking pressures below 30 psig.

Approximate Weight: 25g in brass and 303 stainless steel. Weight will vary slightly, depending on configuration.

Porting: 0.050" (1.27mm) diameter inlet ports. 10-32 external threaded outlet port.

MATERIAL

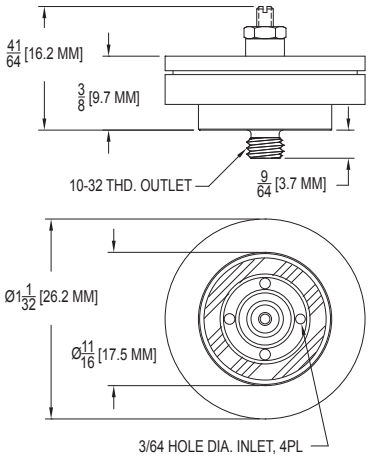
Brass or 303 stainless steel. 18-8 stainless steel spring in flow path.

SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon. See page 11.

NOTE: Care must be taken during installation to avoid shearing the manifold mount thread. Recommended torque spec is 7-9 in lbs.

RVD8-2N1-C-3

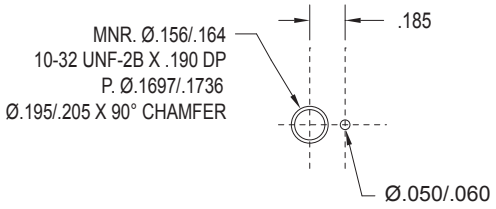


RVD-1N1-C (see website for additional drawings and 3D models).

PART DESIGNATION: RVD8-ANB-C-DEF
Replace each underlined letter with a code.
A, B, and C must be filled in. D, E, and F are extra available options.

Adjustment Style on Cap	Code	Description
A	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
	5	Internal 5/64" Hex Key Adjustment[1]
	6	Micro Adjustment Knob[1]
	7	3/8" Hex Adjustment Knob[1]
Body Style		
B	1	1" Standard Cap
	4	1" Standard Cap with M3 External Reference Port
	6	2" High Resolution Cap[2]
	8	2" High Resolution Cap With Coil Spring
	9	1" Coil Spring Cap
Cracking Pressure Range		
C	0	0-5 psi
	1	0-10 psi
	2	0-20 psi
	3	0-30 psi
	4	0-40 psi[3]
	5	0-50 psi[3]
Body Material		
D		Brass (No Designation)
	3	303 Stainless Steel
Seal and Diaphragm Material		
E		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
F	I	Instrument Cleaned
	X	No Lubrication
	K	Krytox
	IX	Instrument Cleaned & No Lubrication
	IK	Instrument Cleaned & Krytox Lubricant

1 Adjustment Style 5, 6, and 7, can only be selected in conjunction with a coil spring cap (body style 8 or 9).
2 Max cracking pressure range is 10 psig with this cap.
3 Coil spring cap is required for 0-40 psig and 0-50 psig outlet range.



SUGGESTED PORT DIMENSIONS

NEW Ultra-Miniature Piston Relief Valve

DESCRIPTION

The RV-MLS series single-stage piston style pressure relief valves offer relatively precise back pressure regulation in an extremely compact package. The RV-MLS is the smallest relief valve that we currently offer, and is primarily intended for applications where space saving is critical.

Max Inlet Pressure Rating: 500 psig.

Set Pressure Range: 5 to 100 psig.

Approximate Weight: 6.2g in 303 stainless steel. Weight will vary slightly, depending on configuration.

Porting: Multiple inlet port options such as tubing barbs and 10-32 threads, and a male 10-32 threaded outlet port. A cartridge/manifold mount version is also available with 10-32 external threaded outlet port, and two 1/16" (1.6mm) diameter inlet ports.

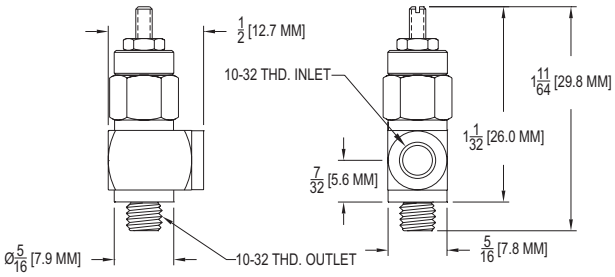
MATERIAL

Brass or 303 stainless steel body. 303 stainless steel stud and internals.

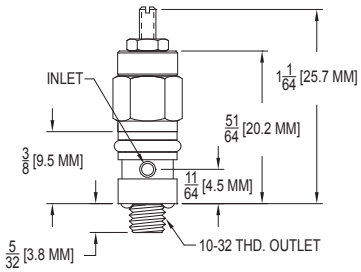
SEALS

Buna-N. Optional Materials: EPDM and Fluorocarbon.

RV-MLS-12-2P-3



RV-MLS-10-1

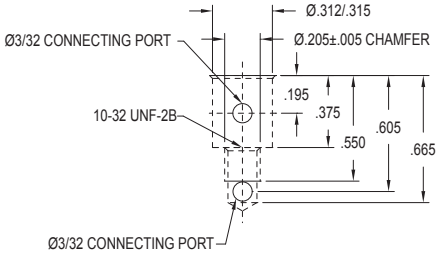


RV-MLS-C8-1-3

PART DESIGNATION: RV-MLS-AA-BC-DD-EFG
Replace each underlined letter with a code.
AA and B must be filled in. C, DD, E, F, and G are extra available options.

Inlet Porting	Code	Description
AA	10	Internal 10-32 Thread
	1E	External 10-32 Thread
	12	1/16" ID Barb
	16	5/64" (2mm) ID Barb
	11	3/32" ID Barb
	13	1/8" ID Barb
	82	.170"-3/16" ID Barb
	8A	1/8" OD Compression
	C8	Cartridge Mount[1]
Adjustment Style on Cap		
B	1	Slotted Screw with 3/16" hexagonal lock nut
	2	Knurled Knob with 3/16" hexagonal lock nut[2]
	3	Knurled Knob with 3/4" dia. knurled lock disc
	4	Slotted Screw with 3/4" dia. knurled lock disc
Mounting Style		
C		No Panel Mount (No Designation)
	P	10-32 Panel Mount Thread
Cracking Pressure Range		
DD		5-45 psig (No Designation)
	HP	20-100 psig
Body Material		
E		Brass (No Designation)
	3	303 Stainless Steel
Seal Material		
F		Buna (No Designation)
	V	Fluorocarbon
	E	EPDM
Special Options		
G	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

1 Cartridge mount available with 303 stainless steel body material only.
2 3mm hex lock nut on panel mount configurations.



SUGGESTED PORT DIMENSIONS

In-Line, Factory Pre-Set Relief Valve

DESCRIPTION

Beswick's RV2 series miniature piston relief valve is an excellent choice for applications requiring a tamper proof valve which opens on rising pressure. The RV2 is factory set to your desired relief pressure. Design offers compactness, and is an outstanding choice for pressure relieving applications from 3 to 30 psig.

Maximum Source Pressure: 500 psig.

Cracking Pressure Range: Factory pre-set cracking pressures from 3 to 30 psig.

Approximate Weight: 41g in brass and stainless steel (303 & 316). Weight will vary slightly, depending on configuration.

Porting: 10-32 internal threaded inlet and outlet ports.

MATERIAL

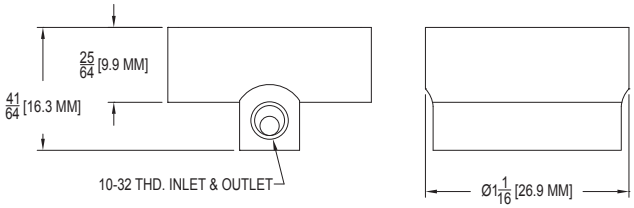
Brass, 303 or 316 stainless steel, with steel spring. (Note: Spring is not in flow path).

SEALS

Buna-N. Optional materials: EPDM and Fluorocarbon.

NOTE: Ask about higher pressure settings.

RV2-1010-PP-3



Part Number Brass	Part Number 303 Stainless	Part Number 316 Stainless	Set Pressure Range (in PSIG)
RV2-1010-PP [1]	RV2-1010-PP-3 [1]	RV2-1010-PP-6 [1]	3 to 30

[1] PP specifies factory pre-set relief pressure in psig (3 to 30 psig). For example, to specify a relief pressure of 9 psig use part number RV2-1010-09.

SPOTLIGHT

Beswick Advantage: Material Options

We stock multiple body and seal material options for nearly all of our products, and are always open to exploring the feasibility of offering new options on a special order basis. Whether your application involves corrosive environments, extreme temperatures, or requires clean materials, we most likely offer a solution that will work for you.

Current ROHS and REACH SVCH compliance documentation can be found on our website:
www.beswick.com/resource_type/compliance-documents

If you are unsure which body or seal material would be best suited for your project, email a Beswick applications engineer at **techsupport@beswick.com**

Miniature Push-to-Fill Valve

DESCRIPTION

Miniature push-to-fill valve with conical shaped input designed to accept rubber tipped shop nozzle. This valve is designed for use with non-hazardous, non-corrosive gases only. It is not designed for use with liquids.

Maximum Pressure: 200 psig.

Cracking Pressure Range: Force to crack the valve is approximately 1 lb, and force to fully open the valve is approximately 3 lb at atmospheric pressure.

Approximate Weight:

- MFV-18: 9.5g in brass and stainless steel.
- MFV-14: 20g in brass.

Porting:

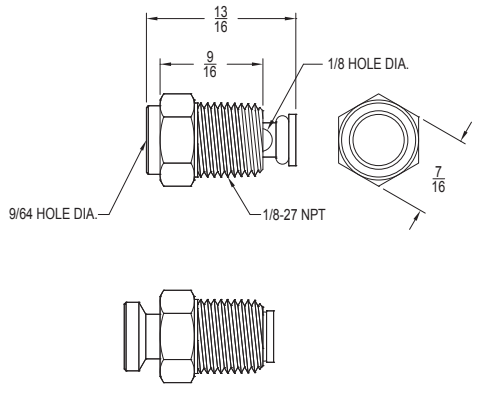
- MFV-18: 9/64" input and 1/8" output hole diameter. 1/8" external NPT connection.
- MFV-14: 11/64" input and 9/64" output hole diameter. ¼" external NPT connection.

MATERIAL

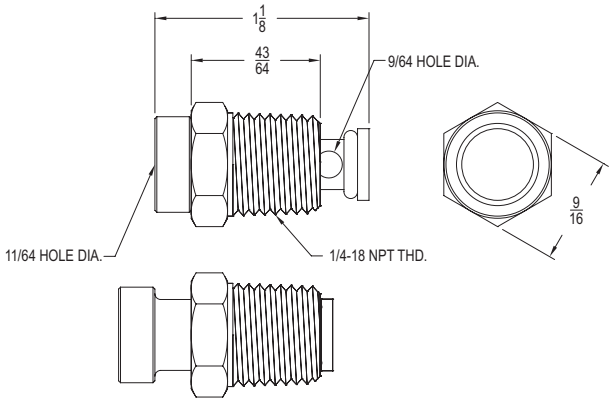
Brass or 303 stainless steel with plated steel or 302 stainless steel spring.

SEALS

One Buna-N O-ring. Optional materials: For MFV-18: EPDM, Fluorocarbon, and Silicone. For MFV-14: EPDM and Fluorocarbon. See page 11.



MFV-18

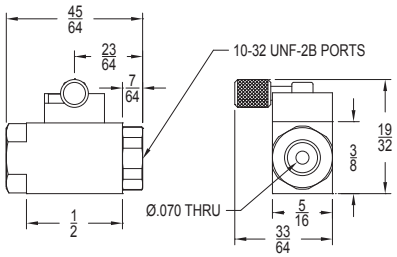


MFV-14

Part Number Brass	Part Number 303 Stainless	Type	Pipe Thread
MFV-18	MFV-18-303	two way, normally closed	1/8 NPT
MFV-14		two way, normally closed	1/4 NPT

BALL VALVES

On/Off Ball Valve - 10-32 Thread



DESCRIPTION

Beswick's miniature ball valve is an excellent choice for applications requiring a compact on/off valve. This design offers small size, light weight, and non-restricted flow.

Working Pressure Range: 500 psig.

Approximate Weight: 9g in stainless steel.

Porting: Both the inlet and outlet ports are tapped 10-32 UNF.

MATERIAL

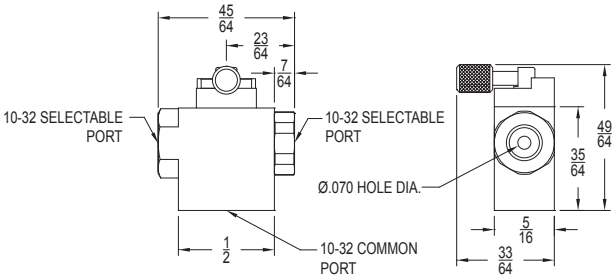
303 or 316 stainless steel body. All configurations contain a 316 stainless steel ball.

SEALS

Buna-N and Teflon®. All configurations contain Teflon seals. Buna-N can be replaced with EPDM, Fluorocarbon, or Silicone.

Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam.
MBV-1010-303	MBV-1010-316	.070

Selector Ball Valve - 10-32 Thread



DESCRIPTION

Beswick's miniature selector ball valve is an excellent choice for applications requiring a port selection valve. The MBVT allows bi-directional flow between a common inlet port on the bottom of the valve, and one of two selectable ports on either side. There is also an "off" position. The design also offers compact size, light weight, and non-restricted flow.

Working Pressure Range: 500 psig.

Approximate Weight: 12g in stainless steel.

Porting: Both the inlet and outlet ports are tapped 10-32 UNF.

MATERIAL

303 or 316 stainless steel body. All configurations contain a 316 stainless steel ball.

SEALS

Buna-N and Teflon®. All configurations contain Teflon seals. Buna-N can be replaced with EPDM, Fluorocarbon, or Silicone.

Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam.
MBVT-1010-303	MBVT-1010-316	.070

Mixing Diverting Ball Valve - 10-32 Thread

DESCRIPTION

Beswick's miniature mixing/diverting ball valve is an excellent choice for applications requiring a port selection valve. The MBVMD allows bi-directional flow between a common inlet port on the bottom of the valve, and one of two selectable ports on either side. There is also a "mixing" position, that allows flow between the common port and both selectable ports simultaneously. This valve does not have an "off" position. The design also offers compact size, light weight, and non-restricted flow.

Working Pressure Range: 500 psig.

Approximate Weight: 12g in stainless steel.

Porting: Both the inlet and outlet ports are tapped 10-32 UNF.

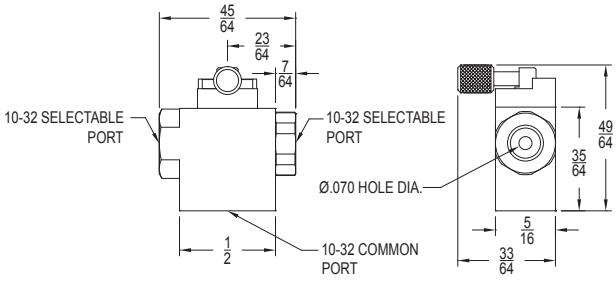
Design News magazine "2011 Golden Mousetrap" winner

MATERIAL

303 or 316 stainless steel body. All configurations contain a 316 stainless steel ball.

SEALS

Buna-N and Teflon®. All configurations contain Teflon seals. Buna-N can be replaced with EPDM, Fluorocarbon, or Silicone.



Part Number 303 Stainless	Part Number 316 Stainless	Hole Diam.
MBVMD-1010-303	MBVMD-1010-316	.070

NEW On/Off Ball Valve - 1/4-28 Thread

DESCRIPTION

The miniature 1/4-28 threaded ball valve is an excellent choice for applications requiring a compact on/off valve. This design offers small size, light weight, and increased flow over the 10-32 threaded MBV design.

Working Pressure Range: 500 psig.

Approximate Weight: 35g in stainless steel.

Effective Orifice: 1/8"

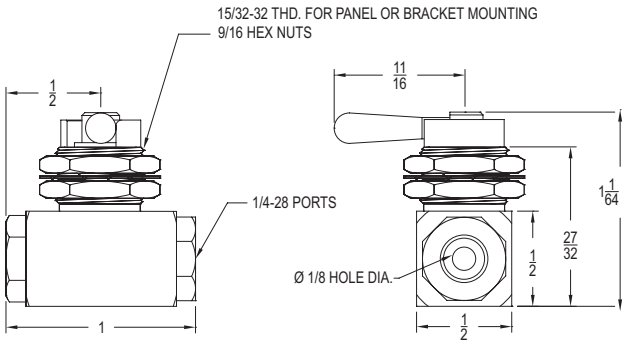
Porting: 1/4-28 internal threaded inlet and outlet ports.

MATERIAL

303 stainless steel body. 316 stainless steel ball.

SEALS

Buna-N and Teflon®. All configurations contain Teflon seals. Buna-N can be replaced with EPDM, Fluorocarbon, or Silicone.



Part Number 303 Stainless	Hole Diam.
MBV-1414-303	1/8"

NEW Selector Ball Valve - 1/4-28 Thread

DESCRIPTION

Beswick's miniature 1/4-28 threaded selector ball valve is an excellent choice for applications requiring a port selection valve. The MBVT-1414 allows bi-directional flow between a common inlet port on the bottom of the valve, and one of two selectable ports on either side. There is also an "off" position. The design also offers compact size, light weight, and increased flow over the 10-32 threaded MBVT design.

Working Pressure Range: 500 psig

Approximate Weight: 40g in stainless steel.

Effective Orifice: 1/8"

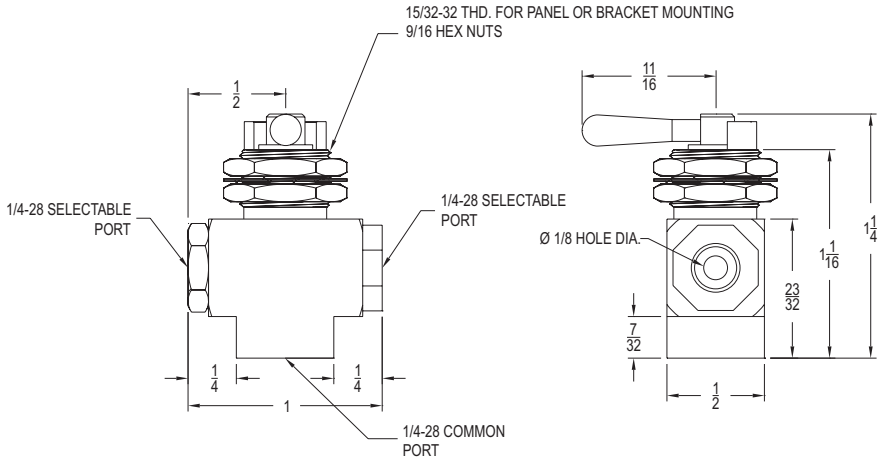
Porting: 1/4-28 internal threaded common and selectable ports.

MATERIAL

303 stainless steel body. 316 stainless steel ball.

SEALS

Buna-N and Teflon®. All configurations contain Teflon seals.
Buna-N can be replaced with EPDM, Fluorocarbon, or Silicone.



Part Number 303 Stainless	Hole Diam.
MBVT-1414-303	1/8"

Multi-Port Rotary Selector Valve

DESCRIPTION

The Beswick selector valve has a unique design which can be used as a quiet replacement for solenoid valves in many applications, and has the ability to operate from a servo motor.

Maximum Source Pressure: 100 psig.

Approximate Weight: About 40g. Weight will vary slightly, depending on configuration.

Actuation: Available with detents for manual or no detents for automatic operation.

Porting: This valve has a single input port and anywhere from two to six output ports. Choice of internal M3 threaded or barbed ports. Consult Factory for other available options.

SV1-6-1012

MATERIAL

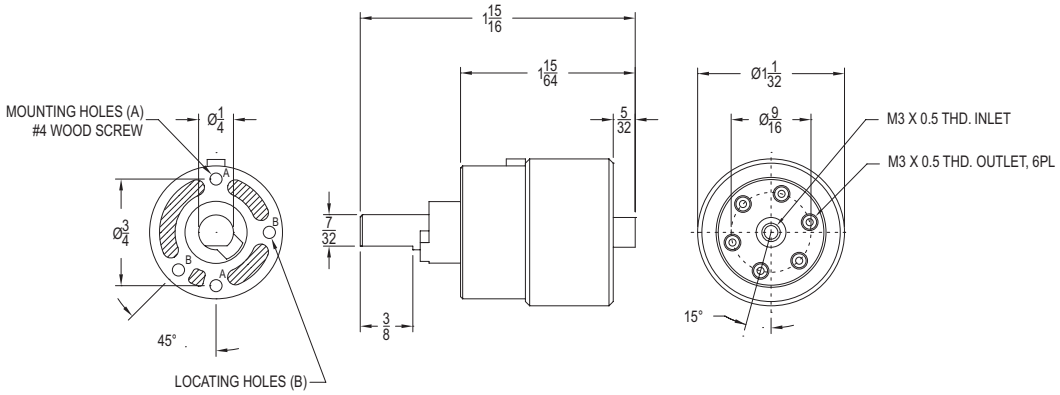
Brass and Ryton® Polyphenylene Sulfide (PPS) body, acetal ball bearings, UHMWP, and Nylatron.

SEALS

Buna-N and Fluorocarbon seals.

NOTE: The standard selector valve is designed with one central input port feeding multiple outputs. A variation of this valve, part number SVPCX- X-XXXX, with integral check valves is designed with multiple inputs feeding one central output port.

This valve is designed for non-hazardous, non-corrosive gases only. It is not designed for use with liquids. Unselected ports vent to atmosphere.



Part Number [1]	Number of Ports (out)	Detents Included
SV1-2-XXXX [2]	2	yes
SV2-2-XXXX [2]	2	no
SV1-3-XXXX [2]	3	yes
SV2-3-XXXX [2]	3	no
SV1-4-XXXX	4	yes
SV2-4-XXXX	4	no
SV1-5-XXXX [3]	5	yes
SV2-5-XXXX [3]	5	no
SV1-6-XXXX	6	yes
SV2-6-XXXX	6	no

1 XXXX refers to the barb size. Refer to Page 29 for M3H barb sizes available.
2 4 port body with screw plug(s) in unused port(s).
3 6 port body with screw plug in unused port.

NEW Multi-Port Selector Ball Valves - 1/4-28 or 10-32 Threaded Ports

DESCRIPTION

The Beswick four and six port selector valves offer bi-directional flow switching between four or six ports. It is designed with one central common port at the bottom of the valve and four or six selectable ports on the perimeter of the valve body. Simply push the flat on the knurled knob while turning the knob to select the active port. It is suitable for use with most liquids and gases (when a compatible O-ring material is selected). Select the O-ring most suitable for your design. Available in both 10-32 and 1/4-28 threaded configurations.

Working Pressure Range: 500 psig.

Approximate Weight: 97g for the MBV4P-1010-303, 121g for the MBV6P-1010-303, 131g for the MBV4P-1414-303.

Effective Orifice: .070" for 10-32 threaded valves.
1/8" for 1/4-28 threaded valves.

Porting: 10-32 or 1/4-28 internal threaded common and selectable ports.

MATERIAL

303 stainless steel body. 316 stainless steel ball.

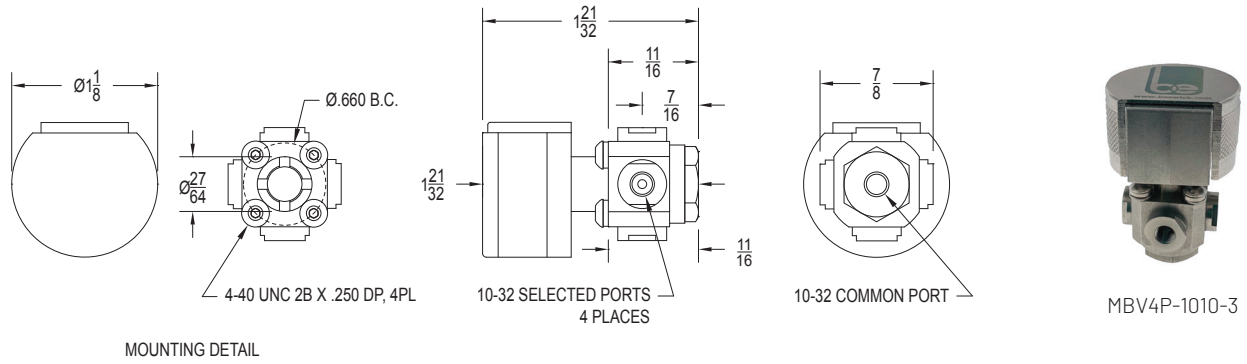
SEALS

Buna-N and Teflon®. All configurations contain Teflon seals.
Buna-N can be replaced with EPDM, Fluorocarbon, or Silicone.

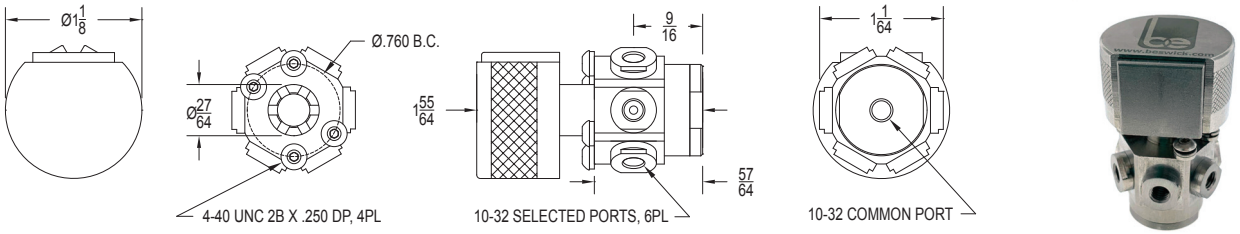
PART DESIGNATION: MBVAP-BBBB-3CD
Replace each underlined letter with a code.
A and BBBB must be filled in. C and D are extra available options.

Number of Selectable Ports	Code	Description
A	4	4 Ports
	6	6 Ports[1]
Thread Size		
BBBB	1010	10-32 Threaded Ports
	1414	1/4-28 Threaded Ports
Seal Material		
C		Buna-N and Teflon® (No Designation)
	E	EPDM and Teflon®
	V	Fluorocarbon and Teflon®
	S	Silicone and Teflon®
Special Options		
D	I	Instrument Cleaned
	K	Krytox
	IK	Instrument Cleaned & Krytox Lubricant

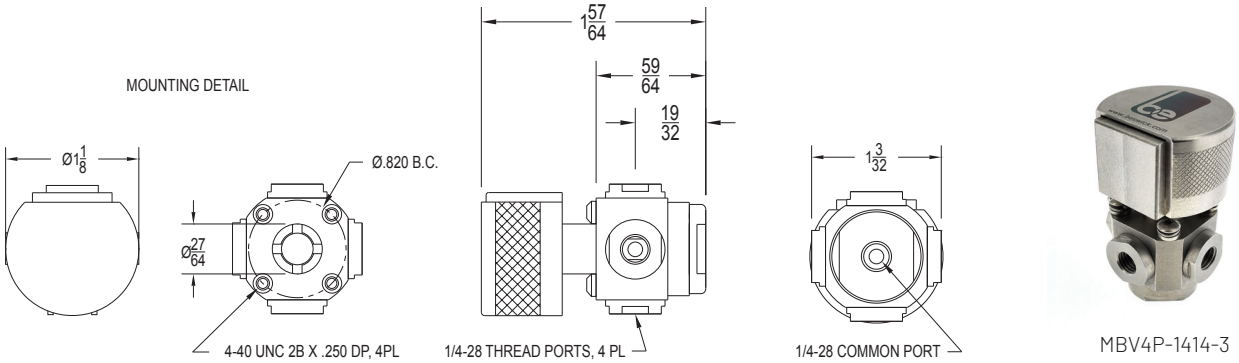
1 6 port model is currently offered with 10-32 threaded ports only.



MBV4P-1010-3



MBV6P-1010-3



MBV4P-1414-3

STEM ACTUATED VALVES & ACCESSORIES

Stem Actuated Valves

DESCRIPTION

Beswick's stem actuated valve is available in 2-way normally opened, 2-way normally closed, and 3-way normally closed configurations. The Beswick miniature stem actuated valve is unique in that the end with the inlet port swivels to provide the flexibility of a universal elbow. This rotating end is held in place by a snap ring and encloses a Buna-N O-ring seal. Other enhancing features of the valve include internal stops on the plunger to prevent override of the stainless steel plunger assembly and a heavy duty return spring.

Working Pressure Range: The pressure range of the valve is 0 to 250 psig with a maximum supply pressure of 300 psig.

Approximate Weight: 33g in brass or stainless steel. Weight will vary slightly, depending on configuration.

Actuation: Actuating force is 28oz. with no differential pressure (add 9.5 oz. for every 100 psig). Full stroke of the plunger is 1/8" of which 1/16" is active. See following page for push button, ball, and pilot actuator accessories.

Porting: 10-32 internal or 1/8" NPT external threaded inlet port. All configurations come with a 10-32 internal threaded outlet port. 3-way configurations exhaust to atmosphere through a 1/16" diameter port in the stem.

MATERIAL

Brass or 303 stainless steel body with stainless steel plunger and steel springs.

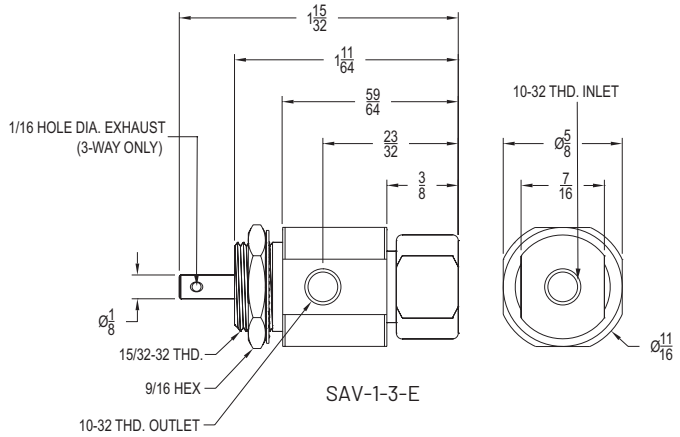
SEALS

Buna-N seals. Optional Material: Fluorocarbon. See page 11.

PART DESIGNATION: SAV-A-BB-C-DDD-EF
Replace each underlined letter with a code.
A and BB must be filled in. C, DDD, E, and F are optional.

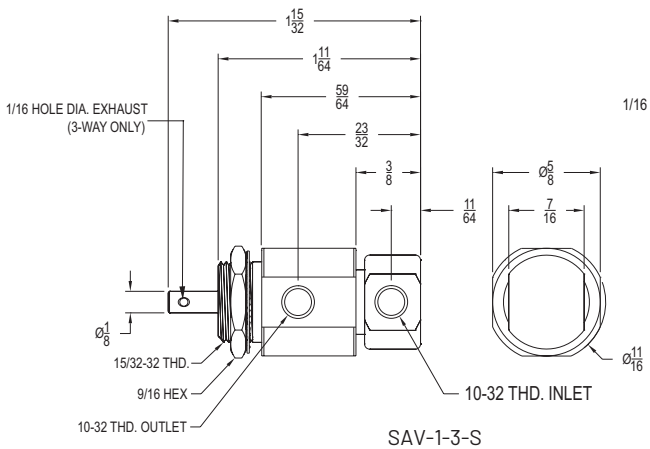
Inlet Port Thread	Code	Description
A	1	10-32 Female Thread
	2	1/8-27 Male NPT thread, and 10-32 Female Thread[1]
Valve Type		
BB	2	2-way normally closed
	2A	2-way normally open
	3	3-way normally closed
Inlet Configuration[2]		
C	E	Swivel Tail with End Inlet
	S	Swivel Tail with Side Inlet
Body Material		
DDD		Brass (No Designation)
	303	303 Stainless Steel
Seal Material		
E		Buna (No Designation)
	V	Fluorocarbon
Special Options		
F	I	Instrument Cleaned
	K	Krytox Lubricant
	IK	Instrument Cleaned & Krytox Lubricant

1 This configuration is currently stocked in brass body material only.
2 Fill in this option only if you selected Inlet Port Connection (A) Type 1. Leave this field blank for 1/8-27 NPT Inlet port.

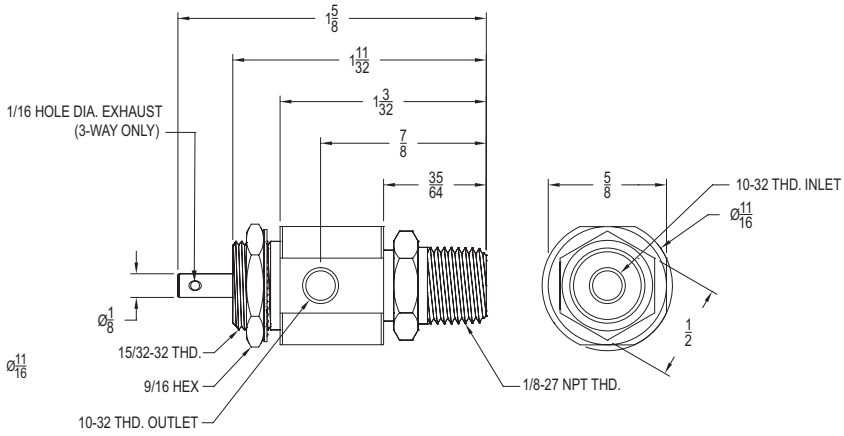


SAV-1-3-E

SAV-1-2-E



SAV-1-3-S



SAV-2-3

Push Button Actuator

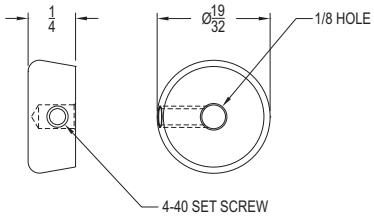
DESCRIPTION

The push-button actuator attaches to the stem of Beswick's two and three-way stem actuated valves. It is designed to permit manual operation of the valve or mechanical actuation where a large target area is required.

MATERIAL

Brass with steel set screw.

Part Number Brass
PBA-1



Ball Actuator

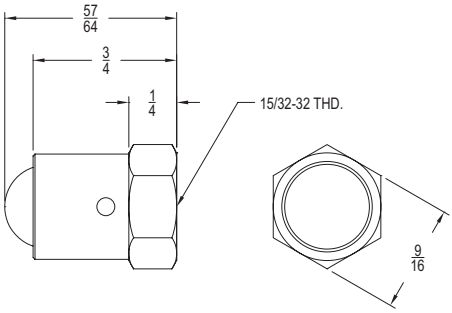
DESCRIPTION

The ball actuator screws onto the panel mount threads of Beswick's two and three-way stem actuated valves and permits actuation of the valve from any direction. A 1/16" thick mounting bracket can be used to mount the stem actuated valve when using the ball actuator.

MATERIAL

Brass body with stainless steel ball.

Part Number Brass
SBA-716



Pilot Actuator

DESCRIPTION

The pressure actuator screws onto the panel mount threads of Beswick's two and three-way stem actuated valves. It transforms the stem actuated valve into a pressure operated valve which responds to a 15 to 60 psig input to the actuator.

MATERIAL

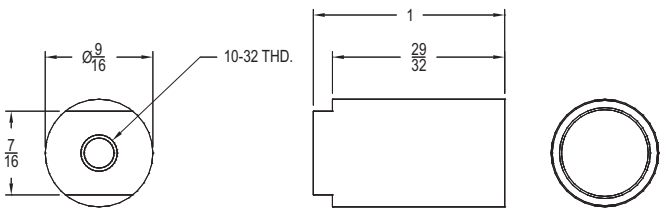
Brass body with steel spring.

SEALS

One Buna-N U-cup.

NOTE: Consult the factory for customized pilot actuators with adjustable input pressure. Panel mount hardware must be removed from the SAV prior to installation of the PAV.

Part Number Brass	Actuation Pressure
PAV-45-20	15-20 psig
PAV-45-30	30 psig
PAV-45-60	60 psig



7/16" Bore Air Cylinder

DESCRIPTION

The 7/16" bore air cylinder is available with 5/32" stroke and features a spring return option.

Force Factor: 0.150 in extension, 0.138 in retraction.

Maximum Pressure Range: 250 psig

Approximate Weight: 31g in brass. Weight will vary slightly, depending on configuration.

Porting: 10-32 internal threaded side inlet, 10-32 internal threaded end inlet, or 1/8" external NPT end inlet.

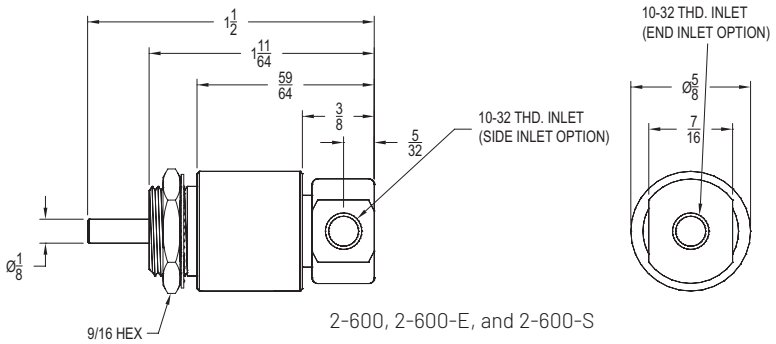
2-600-P

MATERIAL

Brass

SEALS

One Buna-N O-ring and one Buna-N U-cup.



2-600, 2-600-E, and 2-600-S

Part Number Brass	Description	Spring Return
2-600	10-32 side inlet	no
2-600-E	10-32 end inlet	yes
2-600-S	10-32 side inlet	yes
2-600-P	1/8 NPT end inlet	yes

Pressure Conversion Chart

From /To		= psi	= in H_2O	= in Hg	= bar	= mm Hg (torr)	= cm H_2O	= kgm/cm^2	= kPa (kN/m^2)	= atm
atmosphere	x	14.70	406.8	29.92	1.013	760	1033	1.033	101.3	–
kPa (kN/m^2)	x	0.145	4.01	0.295	0.0100	7.5	10.20	10.2×10^{-3}	–	9.87×10^{-3}
kgm/cm^2	x	1 4.22	393.7	28.95	0.981	735.3	1000	–	98.1	0.968
cm H_2O	x	1.42×10^{-2}	0.394	2.89×10^{-2}	9.81×10^{-4}	0.736	–	1.0×10^{-3}	9.81×10^{-2}	9.7×10^{-4}
mm Hg (torr)	x	1.934×10^{-2}	0.535	3.937×10^{-2}	1.33×10^{-3}	–	1.36	1.36×10^{-3}	0.133	1.316×10^{-3}
bar	x	14.5	401.4	29.53	–	750	1020	1.02	100	0.987
in Hg	x	0.491	13.6	–	3.39×10^{-2}	25.4	34.5	3.45×10^{-2}	3.39	3.34×10^{-2}
in H_2O	x	3.61×10^{-2}	–	7.36×10^{-2}	2.49×10^{-3}	1.87	2.54	2.54×10^{-3}	0.249	2.46×10^{-3}
psi	x	–	27.68	2.04	6.89×10^{-2}	51.7	70.3	7.03×10^{-2}	6.90	6.80×10^{-2}

NOTE: All conversions are based on water at 16 degrees Celsius (60 degrees Fahrenheit) and mercury at 0 degrees Celsius (32 degrees Fahrenheit).

1" Bore Air Cylinder

DESCRIPTION

The 2-640 series 1" bore cylinders are machined from brass or stainless steel with a clevis style tail. This novel design has the piston rod supported with two composite bushings. One is in the nose and the other is in the tail assembly. These separated bushings adequately support most couples induced by side loads and/or stress reversals and thus minimize stress raisers, a major source of early failure in cylinders. Dynamic lip seals have a U-shaped cross section. These Beswick cylinders are rebuildable, fit most standard mountings, are ideal for long life service applications and do not require a lubricated air supply. They function exceptionally well in linkage applications and can essentially serve as an "extendible link".

Force Factor: 0.785 in extension, 0.709 in retraction.

Maximum Pressure Range: 250 psig

Approximate Weight: 370g for 1" stroke length, 443g for 2" stroke length.

Porting: Two 10-32 internal threaded ports.

MATERIAL

2-640-2 and 2-640-3: Brass body, nose, tail, closure ring, piston, 300 series stainless steel centerless ground piston rod.

2-640-1 and 2-640-4: 300 series stainless steel body, nose, tail, closure ring, centerless ground piston rod and brass piston.

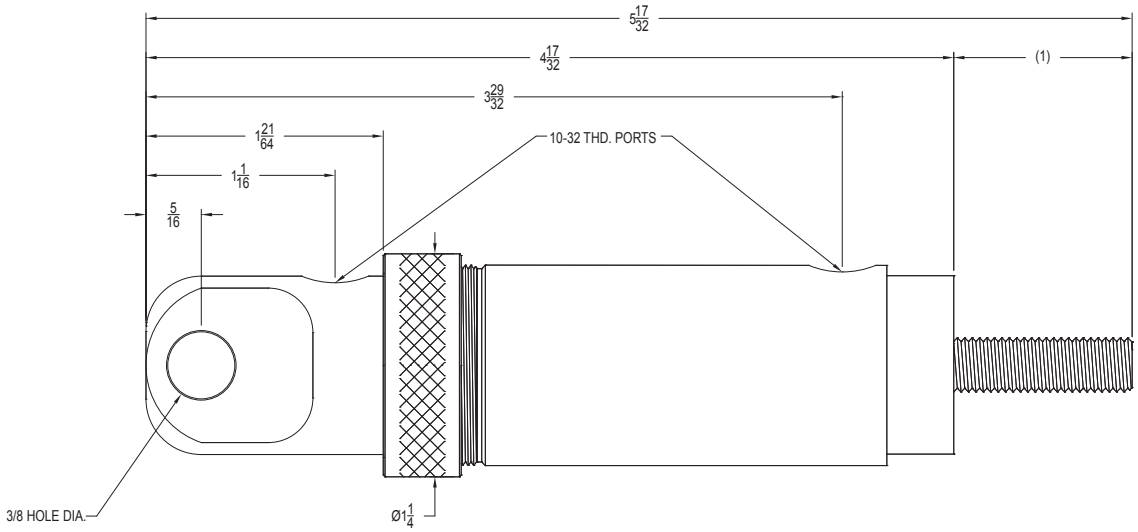
All have composite (self lubricating) bushings.

SEALS

Buna-N O-ring and three moly filled Buna-N U-cups.

NOTE: Replacement seal kit: 2-640-SEAL KIT (customer replaces seals). Factory Repair Service: 2-640-REPAIR (return cylinder to Beswick factory for replacement of seals and bushings.) Factory Overhaul Service: 2-640-OVERHAUL (return cylinder to Beswick factory for replacement of seals, bushings and rod/piston assembly).

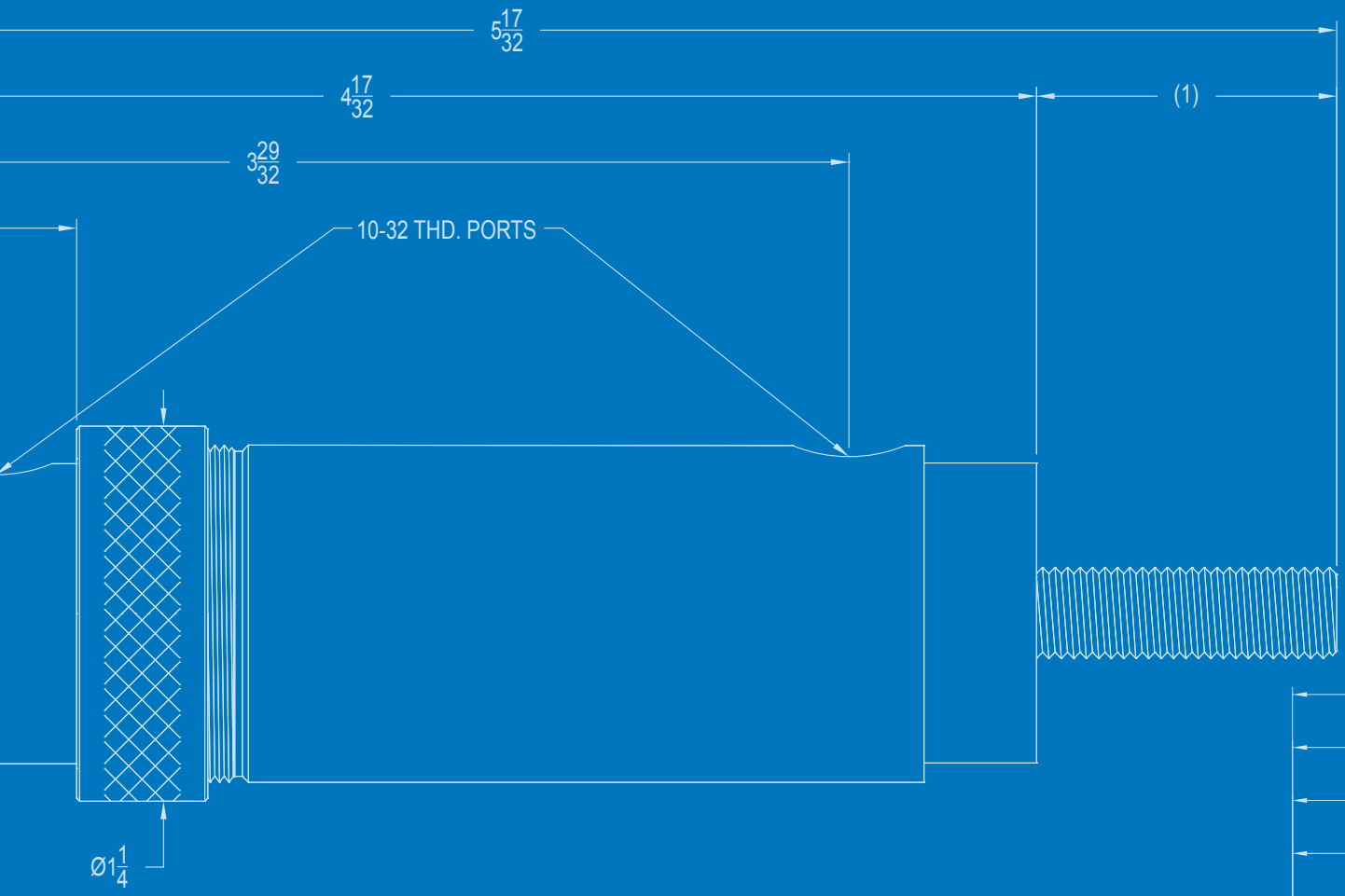
2-640-4

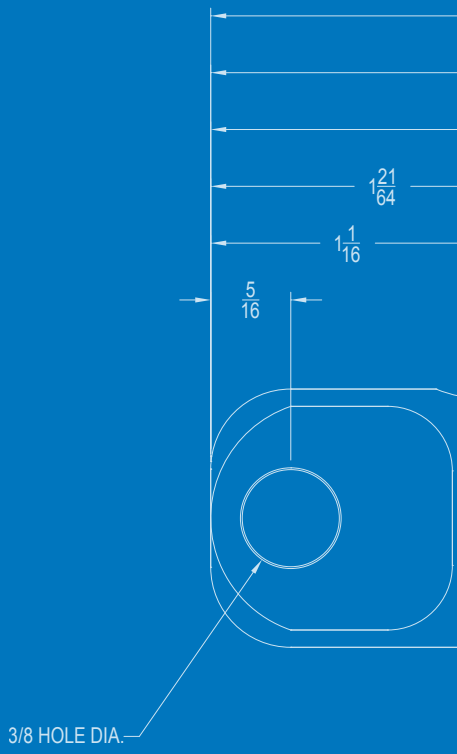


2-640-1

Part Number Brass	Part Number 303 Stainless	Stroke Length
2-640-2	2-640-1	1.0
2-640-3	2-640-4	2.0

BESWICK PART NUMBERS





NOTICE

Beswick Engineering reserves the right to correct errors and change prices, designs, specifications, and/or materials described in this catalog without notice or liability.

Limited Warranty and Limitation of Liability: Beswick warrants that its products as set forth in this catalog shall be free from defects in materials and workmanship under normal use for sixty (60) days from the date of receipt of the product(s) by you. This warranty is limited to the customer and is not transferable. Any implied warranties are limited to sixty (60) days from the date of receipt of the product(s).

The entire liability of Beswick and its suppliers, and your exclusive remedy, shall be (a) return of the price paid for the product that does not meet this warranty that is returned to Beswick at your cost and risk or (b) replacement of the product at Beswick's discretion. This limited warranty is void if any product damage has resulted from accident, abuse, misapplication, service or modification by someone other than Beswick or a Beswick authorized service agent. You shall be solely responsible for determining the suitability of Beswick products for use in your products even if Beswick provides suggestion/application assistance to you.

Beswick, on behalf of itself and its suppliers, disclaims all other warranties, express or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose for all of its products.

In no event shall Beswick or its suppliers be liable to you for any direct, indirect, incidental, special, consequential or exemplary damages whatsoever, including without limitation, the cost to procure substitute products, damages for loss of business profits, business interruption, or other pecuniary loss, arising out of use or inability to use Beswick products.

Exclusions and Limitations: Some jurisdictions do not allow the exclusion or time limitation of certain warranties or the limitation or exclusion of liability for incidental or consequential damages. Accordingly, some of the above limitations may not apply to you.

beswick engineering

Beswick Engineering Co., Inc. (HQ)

284 Ocean Road
Greenland, NH
03840-2442 USA

T. + 1 603 433 1188
F. + 1 603 433 3313

For technical support:
techsupport@beswick.com

To order:
order@beswick.com

Beswick Engineering Co., pte ltd

51 Bukit Batok Cresent
#06-10 Unity Center, Tech Park 21
Singapore 658077

T. + 65 6896 7984
+ 65 6896 7985

spore@beswick.com