

MINIATURE

LFC, LFV, AND LNB SERIES

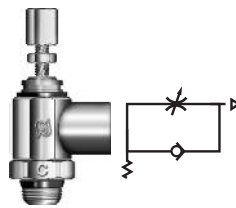
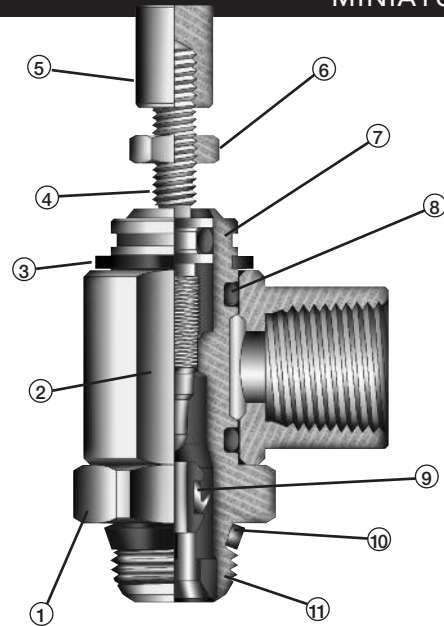
Miniature Flow Controls and Needle Valves

The LFC and LFV Series Flow Controls are designed to allow controlled flow either into or out of the component.

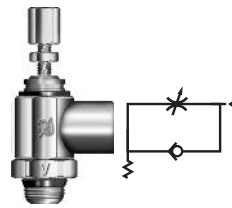
The LNB Series Needle Valve provides a wide range of adjustment in both directions.

Pressure Range: 15 – 145 PSI
Temperature Range: 0° – 160°F
Media: Air/Water
Sizes: Inch and Metric

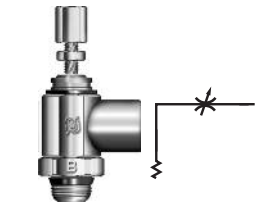
- | | | |
|----|------------------|---------------------|
| 1 | Body | Nickel Plated Brass |
| 2 | Banjo Body | Nickel Plated Brass |
| 3 | Shaft Clip | Stainless Steel |
| 4 | Adjusting Needle | Nickel Plated Brass |
| 5 | Adjusting Knob | Nickel Plated Brass |
| 6 | Locking Nut | Nickel Plated Brass |
| 7 | O-Ring | NBR-70 |
| 8 | O-Ring | NBR-70 |
| 9 | Lip Seal | NBR-70 |
| 10 | Thread Seal | NBR-70 |
| 11 | Seal Support | NBR-70 |



Series LFC (C)
Controlled Flow Out



Series LFV (V)
Controlled Flow In



Series LNB (B)
Needle Valve-
Bi-Directional Flow

SWIFT-FIT

Universal Thread System

The Swift-Fit Universal Thread System allows a wide range of application compatibility.

For example, the 1/8" Swift-Fit Thread is compatible with 1/8" NPT, 1/8" NPTF, 1/8" BSPT, 1/8" BSPP, RC 1/8", and G 1/8" Threads.

The fittings are designed with a lip type seal for exceptional sealing in both pressure and vacuum applications. The thread system will also allow sealing on inclined, concave, and convex surfaces.



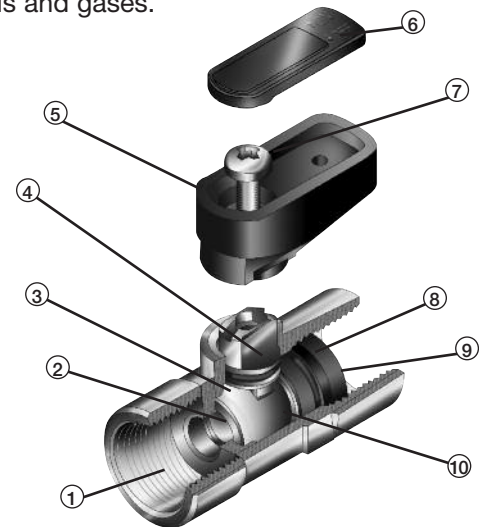
MBV SERIES

Miniature Ball Valves

The Mini Ball Valve body is made of chrome plated brass for corrosion resistance and long life. The valve is designed with a captured stem for blow out proof operation and a teflon seal to accommodate a variety of fluids and gases.

Pressure Range: 0 – 250 PSI
Pipe Sizes: 1/8", 1/4", 3/8", 1/2" NPTF
Temperature Range: 0° – 160°F
Media: Air, Water, Gas

- | | | |
|----|--------------------|---------------------|
| 1 | Body | Chrome Plated Brass |
| 2 | Ball Seats | Teflon |
| 3 | Stem Seal | NBR-70 |
| 4 | Stem | Chrome Plated Brass |
| 5 | Handle | Glass Filled Nylon |
| 6 | Handle Plate | Nylon |
| 7 | Handle Screw | Plated Steel |
| 8 | Ball Retainer Seal | NBR-70 |
| 9 | Ball Retainer | Chrome Plated Brass |
| 10 | Ball | Chrome Plated Brass |



Miniature Series

Flow Controls & Needle Valves

LFC, LFB & LNB Series

MINIATURE

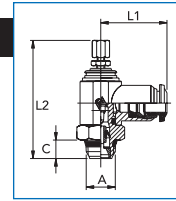
LFC, LFB, AND LNB SERIES

Tube Interface Knob Adjustment

Inch • Metric Tube Valve With Knob Adjustment



Blue Collar Identifies Inch Tube Size
Black Collar Identifies Metric Tube Size

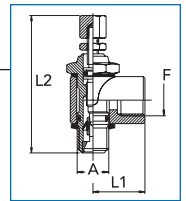


Model Code	Func	A	Tube OD	C	L1	L2 min	L2 max	Model Code	unc	A	Tube OD	C	L1	L2 min	L2 max
LFCU32TAK	C	10-32UNC	1/8"	0.22	0.75	1.30	1.47	LFVS20TKK	V	1/4" SWIFT	6mm	0.27	0.98	1.85	2.08
LFVU32TAK	V	10-32UNC	1/8"	0.22	0.75	1.30	1.47	LNBS20TKK	B	1/4" SWIFT	6mm	0.27	0.98	1.85	2.08
LNBU32TAK	B	10-32UNC	1/8"	0.22	0.75	1.30	1.47	LFCS20TLK	C	1/4" SWIFT	8mm	0.27	1.02	1.85	2.08
LFCU32TBK	C	10-32UNC	5/32"	0.22	0.75	1.30	1.47	LFVS20TLK	V	1/4" SWIFT	8mm	0.27	1.02	1.85	2.08
LFVU32TBK	V	10-32UNC	5/32"	0.22	0.75	1.30	1.47	LNBS20TLK	B	1/4" SWIFT	8mm	0.27	1.02	1.85	2.08
LNBU32TBK	B	10-32UNC	5/32"	0.22	0.75	1.30	1.47	LFCS25TEK	C	3/8" SWIFT	3/8"	0.29	1.18	2.21	2.48
LFCM05TGK	C	M5	3mm	0.16	0.75	1.30	1.47	LFVS25TEK	V	3/8" SWIFT	3/8"	0.29	1.18	2.21	2.48
LFVM05TGK	V	M5	3mm	0.16	0.75	1.30	1.47	LNBS25TEK	B	3/8" SWIFT	3/8"	0.29	1.18	2.21	2.48
LNBM05TGK	B	M5	3mm	0.16	0.75	1.30	1.47	LFCS25TFK	C	3/8" SWIFT	1/2"	0.29	1.28	2.21	2.48
LFCM05THK	C	M5	4mm	0.16	0.75	1.30	1.47	LFVS25TFK	V	3/8" SWIFT	1/2"	0.29	1.28	2.21	2.48
LFVM05THK	V	M5	4mm	0.16	0.75	1.30	1.47	LNBS25TFK	B	3/8" SWIFT	1/2"	0.29	1.28	2.21	2.48
LNBM05THK	B	M5	4mm	0.16	0.75	1.30	1.47	LFCS25TMK	C	3/8" SWIFT	10mm	0.29	1.18	2.21	2.48
LFCM05TJK	C	M5	5mm	0.16	0.79	1.30	1.47	LFVS25TMK	V	3/8" SWIFT	10mm	0.29	1.18	2.21	2.48
LFVM05TJK	V	M5	5mm	0.16	0.79	1.30	1.47	LNBS25TMK	B	3/8" SWIFT	10mm	0.29	1.18	2.21	2.48
LNBM05TJK	B	M5	5mm	0.16	0.79	1.30	1.47	LFCS25TNK	C	3/8" SWIFT	12mm	0.29	1.28	2.21	2.48
LFCM05TKK	C	M5	6mm	0.16	0.81	1.30	1.47	LFVS25TNK	V	3/8" SWIFT	12mm	0.29	1.28	2.21	2.48
LFVM05TKK	V	M5	6mm	0.16	0.81	1.30	1.47	LNBS25TNK	B	3/8" SWIFT	12mm	0.29	1.28	2.21	2.48
LNBM05TKK	B	M5	6mm	0.16	0.81	1.30	1.47	LFCS30TFK	C	1/2" SWIFT	1/2"	0.35	1.38	2.40	2.71
LFCS10TAK	C	1/8" SWIFT	1/8"	0.22	0.83	1.61	1.83	LFVS30TFK	V	1/2" SWIFT	1/2"	0.35	1.38	2.40	2.71
LFVS10TAK	V	1/8" SWIFT	1/8"	0.22	0.83	1.61	1.83	LNBS30TFK	B	1/2" SWIFT	1/2"	0.35	1.38	2.40	2.71
LNBS10TAK	B	1/8" SWIFT	1/8"	0.22	0.83	1.61	1.83	LFCS30TNK	C	1/2" SWIFT	12mm	0.35	1.38	2.40	2.71
LFCS10TBK	C	1/8" SWIFT	5/32"	0.22	0.83	1.61	1.83	LFVS30TNK	V	1/2" SWIFT	12mm	0.35	1.38	2.40	2.71
LFVS10TBK	V	1/8" SWIFT	5/32"	0.22	0.83	1.61	1.83	LNBS30TNK	B	1/2" SWIFT	12mm	0.35	1.38	2.40	2.71
LNBS10TBK	B	1/8" SWIFT	5/32"	0.22	0.83	1.61	1.83	LFCS30TPK	C	1/2" SWIFT	14mm	0.35	1.39	2.40	2.71
LFCS10TCK	C	1/8" SWIFT	1/4"	0.22	0.86	1.61	1.83	LFVS30TPK	V	1/2" SWIFT	14mm	0.35	1.39	2.40	2.71
LFVS10TCK	V	1/8" SWIFT	1/4"	0.22	0.86	1.61	1.83	LNBS30TPK	B	1/2" SWIFT	14mm	0.35	1.39	2.40	2.71
LNBS10TCK	B	1/8" SWIFT	1/4"	0.22	0.86	1.61	1.83								
LFCS10THK	C	1/8" SWIFT	4mm	0.22	0.83	1.61	1.83								
LFVS10THK	V	1/8" SWIFT	4mm	0.22	0.83	1.61	1.83								
LNBS10THK	B	1/8" SWIFT	4mm	0.22	0.83	1.61	1.83								
LFCS10TJK	C	1/8" SWIFT	5mm	0.22	0.85	1.61	1.83								
LFVS10TJK	V	1/8" SWIFT	5mm	0.22	0.85	1.61	1.83								
LNBS10TJK	B	1/8" SWIFT	5mm	0.22	0.85	1.61	1.83								
LFCS10TKK	C	1/8" SWIFT	6mm	0.22	0.89	1.61	1.83								
LFVS10TKK	V	1/8" SWIFT	6mm	0.22	0.89	1.61	1.83								
LNBS10TKK	B	1/8" SWIFT	6mm	0.22	0.89	1.61	1.83								
LFCS10TLK	C	1/8" SWIFT	8mm	0.22	0.94	1.61	1.83								
LFVS10TLK	V	1/8" SWIFT	8mm	0.22	0.94	1.61	1.83								
LNBS10TLK	B	1/8" SWIFT	8mm	0.22	0.94	1.61	1.83								
LFCS20TCK	C	1/4" SWIFT	1/4"	0.27	0.98	1.85	2.08								
LFVS20TCK	V	1/4" SWIFT	1/4"	0.27	0.98	1.85	2.08								
LNBS20TCK	B	1/4" SWIFT	1/4"	0.27	0.98	1.85	2.08								
LFCS20TEK	C	1/4" SWIFT	3/8"	0.29	1.18	2.21	2.48								
LFVS20TEK	V	1/4" SWIFT	3/8"	0.29	1.18	2.21	2.48								
LNBS20TEK	B	1/4" SWIFT	3/8"	0.29	1.18	2.21	2.48								
LFCS20TJK	C	1/4" SWIFT	5mm	0.27	0.98	1.85	2.08								
LFVS20TJK	V	1/4" SWIFT	5mm	0.27	0.98	1.85	2.08								
LNBS20TJK	B	1/4" SWIFT	5mm	0.27	0.98	1.85	2.08								
LFCS20TKK	C	1/4" SWIFT	6mm	0.27	0.98	1.85	2.08								

Code C - Controlled Flow Out
Code V - Controlled Flow In
Code B - Controlled Flow Both Directions

LFC, LFB, LNB SERIES

Female NPTF Interface Knob Adjustment



Model Code	Func	A	Rt Angle Thread F	L1	L2 min	L2 max
LFCU32NDK	C	10-32UNC	10-32UNC	0.39	1.30	1.47
LFVU32NDK	V	10-32UNC	10-32UNC	0.39	1.30	1.47
LNBU32NDK	B	10-32UNC	10-32UNC	0.39	1.30	1.47
LFCS10NAK	C	1/8" SWIFT	1/8" NPTF	0.65	1.61	1.83
LFVS10NAK	V	1/8" SWIFT	1/8" NPTF	0.65	1.61	1.83
LNBS10NAK	B	1/8" SWIFT	1/8" NPTF	0.65	1.61	1.83
LFCS20NBK	C	1/4" SWIFT	1/4" NPTF	0.86	1.85	2.09
LFVS20NBK	V	1/4" SWIFT	1/4" NPTF	0.86	1.85	2.09
LNBS20NBK	B	1/4" SWIFT	1/4" NPTF	0.86	1.85	2.09
LFCS25NCK	C	3/8" SWIFT	3/8" NPTF	1.04	2.21	2.48
LFVS25NCK	V	3/8" SWIFT	3/8" NPTF	1.04	2.21	2.48
LNBS25NCK	B	3/8" SWIFT	3/8" NPTF	1.04	2.21	2.48

Dimensions shown are in inches and are for reference only.

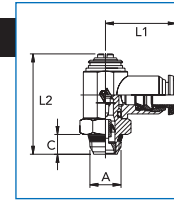
Miniature Series

LFC, Lfv, AND LNB SERIES
Tube Interface Screw Adjustment

Inch • Metric Tube Valve With Knob Adjustment



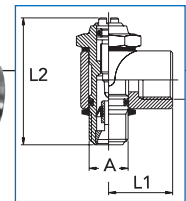
Blue Collar Identifies Inch Tube Size
Black Collar Identifies Metric Tube Size



Model Code	Func	A	Tube OD	C	L1	L2	Model Code	Func	A	Tube OD	C	L1	L2
LFCU32TAS	C	10-32UNC	1/8"	0.16	0.75	0.95	LFVS20TKS	V	1/4" SWIFT	6mm	0.28	0.98	1.40
LFVU32TAS	V	10-32UNC	1/8"	0.16	0.75	0.95	LNBS20TKS	B	1/4" SWIFT	6mm	0.28	0.98	1.40
LNBU32TAS	B	10-32UNC	1/8"	0.16	0.75	0.95	LFCS20TLS	C	1/4" SWIFT	8mm	0.28	1.02	1.40
LFCU32TBS	C	10-32UNC	5/32"	0.16	0.75	0.95	LFVS20TLS	V	1/4" SWIFT	8mm	0.28	1.02	1.40
LFVU32TBS	V	10-32UNC	5/32"	0.16	0.75	0.95	LNBS20TLS	B	1/4" SWIFT	8mm	0.28	1.02	1.40
LNBU32TBS	B	10-32UNC	5/32"	0.16	0.75	0.95	LFCS25TES	C	3/8" SWIFT	3/8"	0.29	1.18	1.61
LFCM05TGS	C	M5	3mm	0.16	0.75	0.95	LFVS25TES	V	3/8" SWIFT	3/8"	0.29	1.18	1.61
LFVM05TGS	V	M5	3mm	0.16	0.75	0.95	LNBS25TES	B	3/8" SWIFT	3/8"	0.29	1.18	1.61
LNBM05TGS	B	M5	3mm	0.16	0.75	0.95	LFCS25TFS	C	3/8" SWIFT	1/2"	0.29	1.28	1.61
LFCM05THS	C	M5	4mm	0.16	0.75	0.95	LFVS25TFS	V	3/8" SWIFT	1/2"	0.29	1.28	1.61
LFVM05THS	V	M5	4mm	0.16	0.75	0.95	LNBS25TFS	B	3/8" SWIFT	1/2"	0.29	1.28	1.61
LNBM05THS	B	M5	4mm	0.16	0.75	0.95	LFCS25TMS	C	3/8" SWIFT	10mm	0.29	1.20	1.61
LFCM05TJS	C	M5	5mm	0.16	0.79	0.95	LFVS25TMS	V	3/8" SWIFT	10mm	0.29	1.20	1.61
LFVM05TJS	V	M5	5mm	0.16	0.79	0.95	LNBS25TMS	B	3/8" SWIFT	10mm	0.29	1.20	1.61
LNBM05TJS	B	M5	5mm	0.16	0.79	0.95	LFCS25TNS	C	3/8" SWIFT	12mm	0.29	1.28	1.61
LFCM05TKS	C	M5	6mm	0.16	0.81	0.95	LFVS25TNS	V	3/8" SWIFT	12mm	0.29	1.28	1.61
LFVM05TKS	V	M5	6mm	0.16	0.81	0.95	LNBS25TNS	B	3/8" SWIFT	12mm	0.29	1.28	1.61
LNBM05TKS	B	M5	6mm	0.16	0.81	0.95	LFCS30TFS	C	1/2" SWIFT	1/2"	0.35	1.38	1.85
LFCS10TAS	C	1/8" SWIFT	1/8"	0.22	0.83	1.18	LFVS30TFS	V	1/2" SWIFT	1/2"	0.35	1.38	1.85
LFVS10TAS	V	1/8" SWIFT	1/8"	0.22	0.83	1.18	LNBS30TFS	B	1/2" SWIFT	1/2"	0.35	1.38	1.85
LNBS10TAS	B	1/8" SWIFT	1/8"	0.22	0.83	1.18	LFCS30TNS	C	1/2" SWIFT	12mm	0.35	1.38	1.85
LFCS10TBS	C	1/8" SWIFT	5/32"	0.22	0.83	1.18	LFVS30TNS	V	1/2" SWIFT	12mm	0.35	1.38	1.85
LFVS10TBS	V	1/8" SWIFT	5/32"	0.22	0.83	1.18	LNBS30TNS	B	1/2" SWIFT	12mm	0.35	1.38	1.85
LNBS10TBS	B	1/8" SWIFT	5/32"	0.22	0.83	1.18	LFCS30TPS	C	1/2" SWIFT	14mm	0.35	1.40	1.85
LFCS10TCS	C	1/8" SWIFT	1/4"	0.22	0.87	1.18	LFVS30TPS	V	1/2" SWIFT	14mm	0.35	1.40	1.85
LFVS10TCS	V	1/8" SWIFT	1/4"	0.22	0.87	1.18	LNBS30TPS	B	1/2" SWIFT	14mm	0.35	1.40	1.85
LNBS10TCS	B	1/8" SWIFT	1/4"	0.22	0.87	1.18							
LFCS10THS	C	1/8" SWIFT	4mm	0.22	0.83	1.18							
LFVS10THS	V	1/8" SWIFT	4mm	0.22	0.83	1.18							
LNBS10THS	B	1/8" SWIFT	4mm	0.22	0.83	1.18							
LFCS10TJS	C	1/8" SWIFT	5mm	0.22	0.85	1.18							
LFVS10TJS	V	1/8" SWIFT	5mm	0.22	0.85	1.18							
LNBS10TJS	B	1/8" SWIFT	5mm	0.22	0.85	1.18							
LFCS10TKS	C	1/8" SWIFT	6mm	0.22	0.89	1.18							
LFVS10TKS	V	1/8" SWIFT	6mm	0.22	0.89	1.18							
LNBS10TKS	B	1/8" SWIFT	6mm	0.22	0.89	1.18							
LFCS10TLS	C	1/8" SWIFT	8mm	0.22	0.94	1.18							
LFVS10TLS	V	1/8" SWIFT	8mm	0.22	0.94	1.18							
LNBS10TLS	B	1/8" SWIFT	8mm	0.22	0.94	1.18							
LFCS20TCS	C	1/4" SWIFT	1/4"	0.28	0.98	1.42							
LFVS20TCS	V	1/4" SWIFT	1/4"	0.28	0.98	1.42							
LNBS20TCS	B	1/4" SWIFT	1/4"	0.28	0.98	1.42							
LFCS20TES	C	1/4" SWIFT	3/8"	0.29	1.18	1.61							
LFVS20TES	V	1/4" SWIFT	3/8"	0.29	1.18	1.61							
LNBS20TES	B	1/4" SWIFT	3/8"	0.29	1.18	1.61							
LFCS20TJS	C	1/4" SWIFT	5mm	0.28	0.96	1.40							
LFVS20TJS	V	1/4" SWIFT	5mm	0.28	0.96	1.40							
LNBS20TJS	B	1/4" SWIFT	5mm	0.28	0.96	1.40							
LFCS20TKS	C	1/4" SWIFT	6mm	0.28	0.98	1.40							

Code C - Controlled Flow Out
Code V - Controlled Flow In
Code B - Controlled Flow Both Directions

LFC, Lfv, LNB SERIES
Female NPTF Interface
Screw Adjustment



Model Code	Func	A	Rt Angle Thread F	L1	L2
LFCU32NDS	C	10-32UNC	10-32UNC	0.39	0.95
LFVU32NDS	V	10-32UNC	10-32UNC	0.39	0.95
LNBU32NDS	B	10-32UNC	10-32UNC	0.39	0.95
LFCS10NAS	C	1/8" SWIFT	1/8" NPTF	0.65	1.18
LFVS10NAS	V	1/8" SWIFT	1/8" NPTF	0.65	1.18
LNBS10NAS	B	1/8" SWIFT	1/8" NPTF	0.65	1.18
LFCS20NBS	C	1/4" SWIFT	1/4" NPTF	0.86	1.42
LFVS20NBS	V	1/4" SWIFT	1/4" NPTF	0.86	1.42
LNBS20NBS	B	1/4" SWIFT	1/4" NPTF	0.86	1.42
LFCS25NCS	C	3/8" SWIFT	3/8" NPTF	1.04	1.61
LFVS25NCS	V	3/8" SWIFT	3/8" NPTF	1.04	1.61
LNBS25NCS	B	3/8" SWIFT	3/8" NPTF	1.04	1.61

Miniature Series

Ball Valves

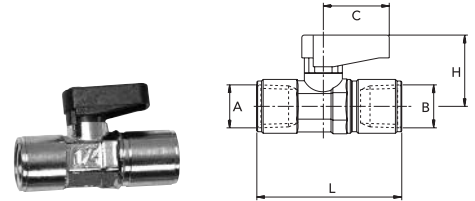
MBV Series

MINIATURE

MBV SERIES

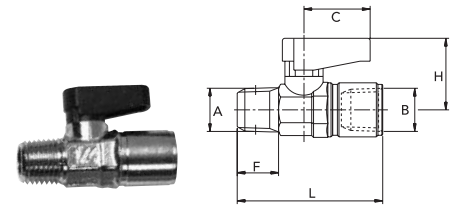
Miniature Ball Valve Female NPTF

Model Code	A NPTF	B NPTF	Orifice	L	C	H
MBVFF1010	1/8"	1/8"	0.22	1.48	0.75	0.83
MBVFF2020	1/4"	1/4"	0.22	1.81	0.75	0.83
MBVFF2525	3/8"	3/8"	0.32	1.91	0.75	0.87
MBVFF3030	1/2"	1/2"	0.39	2.44	1.02	1.20



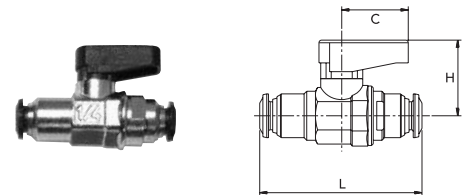
Miniature Ball Valve Male NPTF, Female NPTF

Model Code	A NPTF	B NPTF	Orifice	F	L	C	H
MBVMF1010	1/8"	1/8"	0.22	0.55	1.45	0.75	0.83
MBVMF2020	1/4"	1/4"	0.22	0.55	1.81	0.75	0.83
MBVMF2525	3/8"	3/8"	0.32	0.71	1.87	0.75	0.87
MBVMF3030	1/2"	1/2"	0.39	0.87	2.37	1.02	1.20



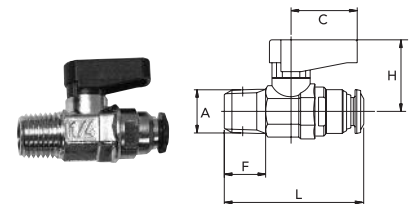
Miniature Ball Valve Tube, Tube

Model Code	Tube OD	Tube OD	L	C	H
MBVT2TATA	1/8"	1/8"	1.67	0.75	0.83
MBVT2TCTC	1/4"	1/4"	1.83	0.75	0.83
MBVT2TETE	3/8"	3/8"	2.38	0.75	0.87



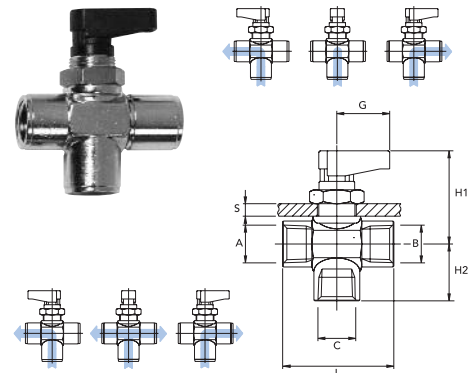
Miniature Ball Valve Tube, Male NPTF

Model Code	A NPTF	Tube OD	F	L	C	H
MBVMT10TB	1/8"	5/32"	0.33	1.37	0.74	0.82
MBVMT10TC	1/8"	1/4"	0.33	1.37	0.74	0.82
MBVMT20TC	1/4"	1/4"	0.48	1.50	0.74	0.82
MBVMT25TE	3/8"	3/8"	0.51	1.75	0.74	0.86



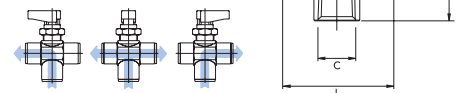
Miniature Ball Valve Female NPTF, Closed Center

Model Code	A NPTF	B NPTF	C NPTF	Orifice	L	G	H1	H2	S max
MBVF3C10	1/8"	1/8"	1/8"	0.22	1.48	0.75	1.32	0.65	0.17
MBVF3C20	1/4"	1/4"	1/4"	0.22	1.81	0.75	1.32	0.83	0.17
MBVF3C25	3/8"	3/8"	3/8"	0.28	1.91	0.75	1.38	0.87	0.17



Miniature Ball Valve Female NPTF, Open Center

Model Code	A NPTF	B NPTF	C NPTF	Orifice	L	G	H1	H2	S max
MBVF3P10	1/8"	1/8"	1/8"	0.22	1.48	0.75	1.32	0.65	0.17
MBVF3P20	1/4"	1/4"	1/4"	0.22	1.81	0.75	1.32	0.83	0.17
MBVF3P25	3/8"	3/8"	3/8"	0.28	1.91	0.75	1.38	0.87	0.17



Miniature Ball Valve Right Angle Female NPTF, Female NPTF

Model Code	A NPTF	B NPTF	Orifice	L	G	H1	H2	S max
MBVFRA10	1/8"	1/8"	0.22	1.20	0.75	1.32	0.65	0.17
MBVFRA20	1/4"	1/4"	0.22	1.36	0.75	1.32	0.83	0.17
MBVFRA25	3/8"	3/8"	0.28	1.54	0.75	1.38	0.87	0.17

