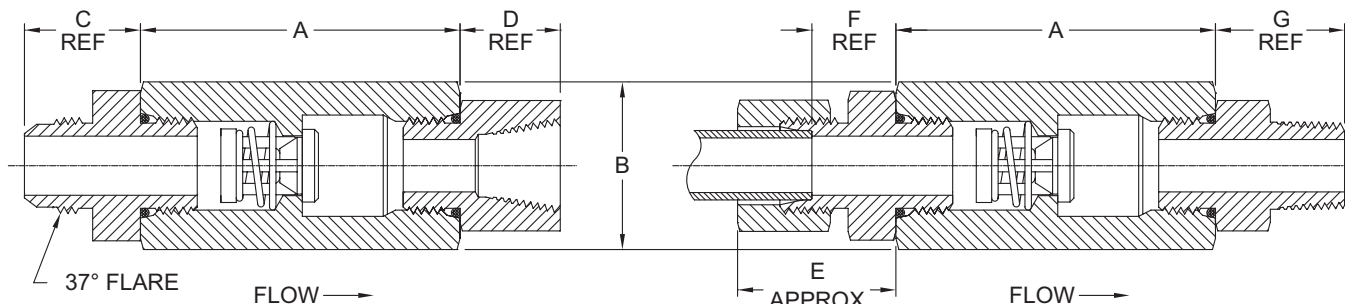


The **Mini-Check (M1 - M8)** is a check valve designed for minimum pressure drop. The three-piece construction permits many combinations of end fittings, which makes the valve adaptable for nearly every application. The Mini-Check is available with 1/8, 1/4, and 3/8 inch pipe threads, both male and female. It can also be supplied with a 1/8, 1/4, or 3/8 inch **tubing end** on one side and with a **pipe thread end** on the other. **Combinations** of male and female threads are also available. The Mini-Check can also be used as a low pressure relief valve or vacuum breaker by using the desired spring settings.

**NOTE:** Many valves in this series can be supplied with B16.34 certification. Consult the factory for more information.

- |  |   |
|--|---|
| M1 – Male pipe threads both ends.          | M5 – Male pipe inlet – tubing outlet.   |
| M2 – Female pipe threads both ends.        | M6 – Female pipe inlet – tubing outlet. |
| M3 – Male pipe inlet – female pipe outlet. | M7 – Tubing inlet – male pipe outlet.   |
| M4 – Female pipe inlet – male pipe outlet. | M8 – Tubing inlet – female pipe outlet. |

**NOTE:** When ordering styles M5 through M8 be sure to specify whether compression (-C) or 37° flare (-F).



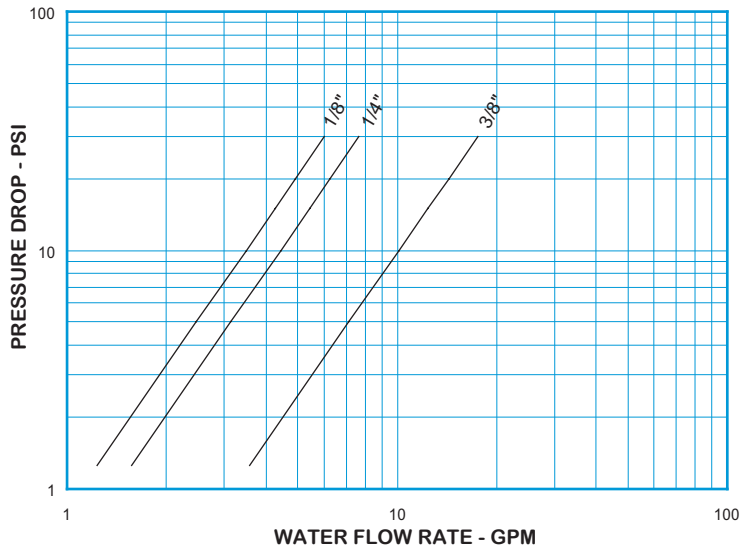
Nom. Pipe & Tube Size	Size Code	A	Hex Size B <sup>①</sup>	C	D	E	F	G	Orifice Diameter
1/8	A	2.16	7/8	0.75	0.71	0.93	0.11	0.73	0.348
1/4	B	2.16	7/8	0.92	0.84	1.23	0.57	0.98	0.348
3/8	C	2.48	1-1/8	0.92	0.91	1.32	0.59	1.03	0.464

<sup>①</sup> May be larger and/or round.

Body Material <sup>②</sup>	Non-Shock Pressure-Temp. Rating @ 100° F Consult factory for P-T rating above 100° F
316 Stainless Steel (SS)	5000 PSIG (1500 for o-ring seats)
Carbon Steel (CS)	
Brass (BR)	3000 PSIG (1500 for o-ring seats)

<sup>②</sup> See page 58 for material grade information.

**Mini Check**  
For Water at 72°F



**Note:** All flow curves and Cv values presume the valves are fully open with 1/2 PSI cracking pressure springs. Consult the factory for more information.

STYLE M1-M8 C <sub>v</sub> VALUES & VALVE WEIGHTS		
C <sub>v</sub>	SIZE	ALL MATL
1.1	1/8	6.2 oz.
1.4	1/4	7.3 oz.
3.2	3/8	11.8 oz.

See page 53 for Flow Formulae.  
Valve weights are approximate.

## HOW TO ORDER CHECK-ALL STYLE M1 - M8

**BODY MATERIAL<sup>2</sup>**

BRASS = BR  
CARBON STEEL = CS  
316 SS = SS

See p. 3 for temperature ratings

**SPRING CRACKING PRESSURES (PSI)**  
Must use decimal as a character unless selecting NO SPRING. Specify Exact Setting

SPRING RANGES	EXAMPLE
.000 TO .999	= .500
1.00 TO 9.99	= 1.50
10.0 TO 85.0	= 15.0
NO SPRING	= NOSPRG

**STANDARD CRACKING PRESSURES<sup>1</sup>**

	.125	.500	1.50	3.50

**Note:** Many other cracking pressures are available. All spring tolerances +/- 15%.

**VALVE STYLE**

M1  
M2  
M3  
M4  
M5  
M6  
M7  
M8

**SEAT MATERIAL<sup>3</sup>**

AFLAS <sup>®</sup> = AS	PTFE
BUNA-N = BN	BUNA-N
EPDM <sup>4</sup> = EP	EPDM <sup>4</sup>
KALREZ <sup>®</sup> (FFKM) = KZ	PTFE
FLUOREZ <sup>®</sup> (FFKM) = FZ	
"METAL-TO-METAL" = MT	SEE NOTE BELOW <sup>5</sup>
NEOPRENE = NE	NEOPRENE
PTFE (TF) = TF	PTFE
FKM = VT	FKM

**See p. 3 for temp ratings**

**STANDARD END FITTING O-RING MATERIAL**

PTFE
BUNA-N
EPDM <sup>4</sup>
PTFE
SEE NOTE BELOW <sup>5</sup>
NEOPRENE
PTFE
FKM

**SIZE**

1/8 = A  
1/4 = B  
3/8 = C

**SPECIAL OPTIONS**

T = FEP ENCAPSULATED SPRING  
-O = Outer o-ring seals same as seat  
**See pages 3 & 4 for temperature rating**  
-C = Compression Tube (M5 - M8 only)  
-F = Flared Tube (M5 - M8 only)

**SPRING MATERIAL**

316 SS = SS  
ALLOY C-276 = HC  
ALLOY B = HB  
INCONEL<sup>®</sup> X750 OR ALLOY X750 = IX  
MONEL<sup>®</sup> 400 = MO  
17-7PH SS = PH  
TITANIUM = TI

**See p. 4 for temperature ratings**

Listed above are the most common material selections. Please contact the factory for additional options.

- <sup>1</sup> .500 PSI is the only standard cracking pressure for spring materials other than Stainless Steel. 0.125 PSI springs are not recommended for installations with flow vertical down.
- <sup>2</sup> Brass valves have plated Carbon Steel tube fittings if applicable. Consult factory if other fitting materials are desired.
- <sup>3</sup> Seat materials other than "metal-to-metal" have a maximum pressure rating of 1500 PSI. "Metal-to-Metal" and PTFE seats are not resilient. See page 54 for allowable leakage rates.
- <sup>4</sup> EP seats not recommended for use with Carbon Steel valves.
- <sup>5</sup> Fitting o-rings are the same as the seat for standard seat materials. For "metal-to-metal" seated valves, end fitting o-rings are Buna-N for brass and carbon steel valves and FKM for stainless steel valves.