



MC SERIES

Specifications

Pressure:
Vacuum to 250 psi, 17.3 bar

Temperature:
-40°F to 180°F (-40°C to 82°C)
(High temperature versions available with ratings to 400°F)

Materials:
Main components:
Chrome-plated brass

Thumb latch: Stainless steel

Valves: Acetal

Valve spring: 316 stainless steel

External springs and pin: Stainless steel

O-ring: Buna-N

Finish: Chrome

Tubing Sizes:
1/8" to 1/4" ID, 3.2mm to 6.4mm ID

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of Colder's products in their own application conditions.

Colder's MC Series chrome-plated brass

couplings are built tough and made to last in the most demanding applications. Ideal for use when higher temperature or pressure is present, the MC Series features a one-hand operation for swift and easy connects and disconnects. These couplings offer the flexibility of multiple configurations and terminations and mate with both PMC acetal and PMC12 polypropylene couplings.

Features

- Brass material
- High temperature capability
- Colder thumb latch
- Compatible

Benefits

- Durable and able to withstand higher pressure and temperature
- Versions rated to 400°F (204°C)
- One-hand connection and disconnection
- MC mates with PMC and PMC12 Series couplings

Note: High temperature versions available with ratings to 400° F. Call Customer Service for more information.

Liquid Flow Rates

Liquid Flow Rate Information for Couplings

The chart below shows the flow rate for Colder couplings. Each coupling was tested with water at 70°F (21°C). To determine flow rates for specific coupling configurations use the formula to the right.

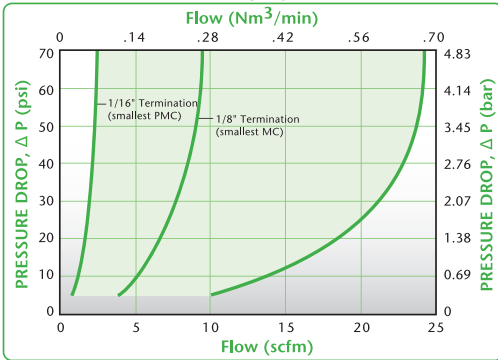
$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

Q=Flow rate in gallons per minute
C_v=Average coefficient across various flow rates (see chart)
ΔP=Pressure drop across coupling (psi)
S=Specific gravity of liquid

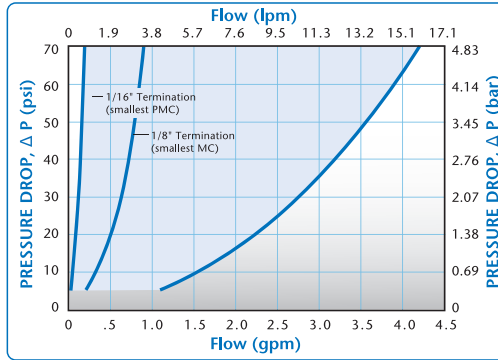
C_v Values for 1/8" Flow MC Couplings

BODIES	MC12 2004	MCD12 2004	MC12 2006	MCD12 2006	MC12 2202	MCD12 2202	MC12 2204	MCD12 2204	MC12 2402	MCD12 2402	MC12 2404	MCD12 2404	MC12 2602	MC12 2304	MC12 2104	MCD12 2304	MC12 2203	MCD12 2203
MC100212	.40	.18	.50	.19	.25	.16	.50	.19	.50	.20	.51	.19	.50	.50	.38	.24	.30	.17
MCD100212	.27	.18	.31	.18	.24	.16	.28	.20	.26	.20	.29	.18	.26	.26	.27	.24	.25	.17
MC100412	.40	.21	.50	.24	.26	.18	.50	.24	.50	.20	.51	.24	.50	.50	.38	.26	.30	.19
MCD100412	.29	.19	.32	.23	.25	.17	.30	.23	.27	.21	.28	.23	.27	.28	.29	.24	.25	.183
MC120412	.40	.18	.50	.18	.25	.16	.40	.18	.40	.16	.36	.18	.40	.40	.38	.21	.30	.173
MCD120412	.21	.17	.22	.17	.20	.16	.22	.17	.21	.17	.20	.17	.21	.22	.21	.18	.21	.16
MC160212	.23	.15	.28	.18	.19	.14	.27	.15	.27	.15	.28	.18	.27	.27	.23	.16	.20	.14
MCD160212	.19	.15	.19	.15	.17	.14	.19	.15	.18	.15	.18	.15	.18	.19	.19	.15	.18	.14
MC160412	.33	.23	.44	.24	.24	.18	.44	.23	.44	.20	.38	.24	.38	.44	.33	.26	.26	.19
MCD160412	.23	.17	.26	.21	.22	.16	.26	.21	.26	.19	.25	.21	.21	.26	.23	.24	.22	.16
MC170312	.25	.20	.30	.20	.20	.17	.30	.20	.30	.19	.28	.20	.28	.30	.25	.18	.21	.17
MCD170312	.20	.17	.20	.17	.19	.15	.21	.17	.19	.17	.20	.17	.19	.20	.20	.16	.19	.16

MC Air Flow, 100 psig Inlet Pressure



MC Water Flow



These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.



DID YOU KNOW ...

Colder's MC Series couplings are also available in keyed, color-coded versions? Specifically designed for applications requiring foolproof connections and non-interchangeable lines, these couplings are a durable and attractive solution for high-volume applications. Contact Colder for more information.



Nu Nu-Seal™ Specifications

Pressure:
Vacuum to 20 psi, 1.4 bar

Materials:
Main components:
Low density polyethylene

Color:
Translucent

Tubing Size:
1/8" ID, 3.2mm ID

Nu-Seal™ quick disconnect coupling inserts

feature a patented integral seal and are USP Class VI compliant. These economic inserts are ideal for applications that require limited connect/disconnect cycles.



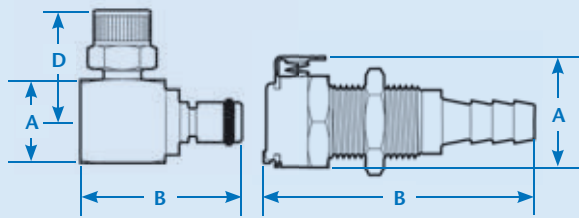
Features

- Patented integral seal
- Low density polyethylene
- Chemically resistant
- Compatible

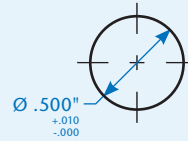
Benefits

- Economical, allows for disposability and provides leak-free connections
- Sterilizable by EtO, E-beam & gamma
- Works in many critical USP Class VI material applications
- Mates with MC, PMC, PMC12 couplings

Product Dimensions



A = Height/Diameter
 B = Total Length (including valve)
 D = Elbow Radial Length



	PANEL OPENING	MAX. PANEL THICKNESS	MIN. PANEL THICKNESS
COUPLING BODIES (except male thread)	see drawing	.50	.05
MALE THREAD	see drawing	.21	.05
COUPLING INSERTS	see drawing	.30	.05



PANEL NUT HEX	PANEL NUT THREAD
5/8	1/2-24UNS











Coupling Bodies

CHROME-PLATED BRASS

	TERMINATION IN-LINE PIPE THREAD	THREAD SIZE 1/8" NPT 1/8" BSPT 1/4" NPT 1/4" BSPT		STRAIGHT THRU MC1002 MC1002BSPT MC1004 MC1004BSPT	SHUTOFF MCD1002 MCD1002BSPT MCD1004 MCD1004BSPT	A .76 .76 .76 .76	B 1.00 1.00 1.10 1.10
	TERMINATION PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†	TUBING SIZE 5/32" OD, .10" ID 1/4" OD, .17" ID	METRIC EQ. 4.0mm OD, 2.5mm ID 6.4mm OD, 4.3mm ID	STRAIGHT THRU MC12025 MC1204	SHUTOFF MCD12025 MCD1204	A .76 .76	B 1.67 1.77
	TERMINATION PANEL MOUNT HOSE BARB	TUBING SIZE 1/8" ID 3/16" ID 1/4" ID	METRIC EQ. 3.2mm ID 4.8mm ID 6.4mm ID	STRAIGHT THRU MC1602 MC1603 MC1604	SHUTOFF MCD1602 MCD1603 MCD1604	A .76 .76 .76	B 1.67 1.89 1.89
	TERMINATION PANEL MOUNT FEMALE THREAD	THREAD SIZE 10-32 UNF		STRAIGHT THRU MC181032	SHUTOFF MCD181032	A .76	B 1.22
	TERMINATION PANEL MOUNT MALE THREAD	THREAD SIZE 1/8" NPT		STRAIGHT THRU MC1502	SHUTOFF MCD1502	A .76	B 1.20
	TERMINATION IN-LINE FERRULELESS POLYTUBE FITTING, PTF†	TUBING SIZE 1/4" OD, .17" ID	METRIC EQ. 6.4mm OD, 4.3mm ID	STRAIGHT THRU MC1304	SHUTOFF MCD1304	A .76	B 1.77
	TERMINATION IN-LINE HOSE BARB	TUBING SIZE 1/8" ID 3/16" ID 1/4" ID	METRIC EQ. 3.2mm ID 4.8mm ID 6.4mm ID	STRAIGHT THRU MC1702 MC1703 MC1704	SHUTOFF MCD1702 MCD1703 MCD1704	A .76 .76 .76	B 1.67 1.89 1.89

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. †NOTE: Colder's Ferruleless PTF (polytube fitting) terminations do not require ferrules to achieve a secure connection and are therefore easier to use and reuse. PTF fittings are designed for semi-rigid tubing, i.e., polyethylene, nylon, polyurethane, etc. NOTE: Elbow configurations are available. Contact Colder for more information.

CHROME-PLATED BRASS

TERMINATION IN-LINE PIPE THREAD	THREAD SIZE		STRAIGHT THRU	SHUTOFF	A	B	 <i>non-valved shown</i>
	1/8" NPT		MC2402	MCD2402	.58	1.03/1.43	
	1/8" NPT Female		MC2602	MCD2602	.58	.95/1.65	
	1/8" BSPT		MC2402BSPT	MCD2402BSPT	.58/.72	1.03/1.43	
	1/4" NPT		MC2404	MCD2404	.65	1.08/1.43	
1/4" NPT Female		MC2604	MCD2604	.72	1.15/1.82		
1/4" BSPP Female		MC2604BSPP	MCD2604BSPP	.72	1.23/1.91		
TERMINATION PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	
1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	MC4004	MCD4004	.72	1.75/1.85		
TERMINATION PANEL MOUNT HOSE BARB	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	
	1/8" ID	3.2mm ID	MC4202	MCD4202	.72	1.65/1.75	
	3/16" ID	4.8mm ID	MC4203	MCD4203	.72	1.87/1.97	
1/4" ID	6.4mm ID	MC4204	MCD4204	.72	1.87/1.97		
TERMINATION IN-LINE FERRULELESS POLYTUBE FITTING, PTF†	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A		B
5/32" OD, .10" ID	4.0mm OD, 2.5mm ID	MC20025	MCD20025	.58	1.13/1.53		
1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	MC2004	MCD2004	.58	1.15/1.55		
3/8" OD, .25" ID	9.5mm OD, 6.4mm ID	MC2006	MCD2006	.58	1.30/1.50		
TERMINATION IN-LINE HOSE BARB	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A		B
1/8" ID	3.2mm ID	MC2202	MCD2202	.58	1.05/1.65		
3/16" ID	4.8mm ID	MC2203	MCD2203	.58	1.25/1.85		
1/4" ID	6.4mm ID	MC2204	MCD2204	.58	1.25/1.67		
TERMINATION IN-LINE FEMALE THREAD	THREAD SIZE		STRAIGHT THRU	SHUTOFF	A	B	
10-32 UNF		MC281032	MCD281032	.58	.63/1.30		
TERMINATION ELBOW FERRULELESS POLYTUBE FITTING, PTF†	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	D
	5/32" OD, .10" ID	4.0mm OD, 2.5mm ID	MC21025	MCD21025	.63	1.18/1.28	.81
1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	MC2104	MCD2104	.63	1.18/1.28	.83	
TERMINATION ELBOW HOSE BARB	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	
1/8" ID	3.2mm ID	MC2302	MCD2302	.62	1.18/1.28	.76	
1/4" ID	6.4mm ID	MC2304	MCD2304	.63	1.18/1.28	.76	

Also available in NSF listed versions, please visit our web site for part number information



POLYETHYLENE

Nu-Seal™ Disposable Coupling Inserts

TERMINATION IN-LINE HOSE BARB	TUBING SIZE	METRIC EQ.	PART NO.	A	B
	1/8" ID	3.2 mm ID	DSM2202	.50	.98

Coupling bodies must have integral terminations to be compatible.



All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted. †NOTE: Colder's Ferruleless PTF (polytube fitting) terminations do not require ferrules to achieve a secure connection and are therefore easier to use and reuse. PTF fittings are designed for semi-rigid tubing, i.e., polyethylene, nylon, polyurethane, etc. NOTE: Elbow configurations are available. Contact Colder for more information.



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