MC SERIES CONNECTOR

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-rings: 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 CPC products in their own application conditions. Use the graph to the right as a guide.*

CPC's MC Series chrome-plated brass couplings are built tough and made to last in the most demanding applications. Ideal for use with higher temperatures or pressures, MC Series couplings feature 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.

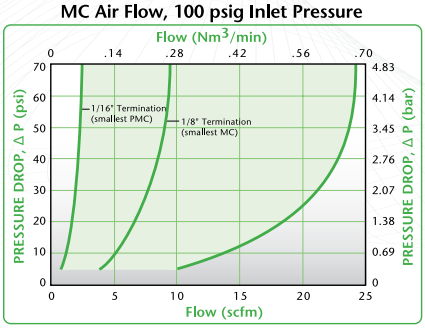
FEATURES	BENEFITS
Brass material	Durable and able to withstand higher pressure and temperature
High temperature capability	Versions rated to 400°F (204°C)
CPC thumb latch	One-hand connection and disconnection
Compatible	MC mates with PMC and PMC12 Series couplings

Note:
High temperature versions available with ratings to 400 F. Call customer service for more information.

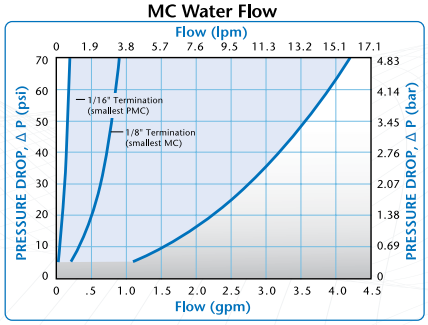
Also available in NSF listed versions, please visit our website for part number information.

NSF

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?

CPC OFFERS KEYED, COLOR-CODED COUPLING OPTIONS:

CPC'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 CPC for more information.

Liquid Flow Rate Information for Couplings

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

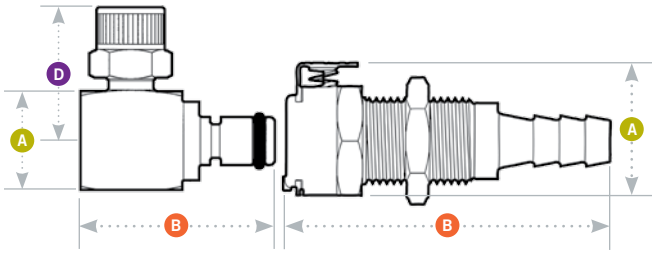
$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

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 / INSERTS	MC12 2004	MCD12 2004	MC12 2006	MCD12 2006	MC12 2202	MCD12 2202	MC12 2204	MCD12 2204	MC12 2402	MCD12 2402	MC12 2404	MCD12 2304	MC12 2602	MCD12 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

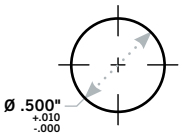
MC DIMENSIONS



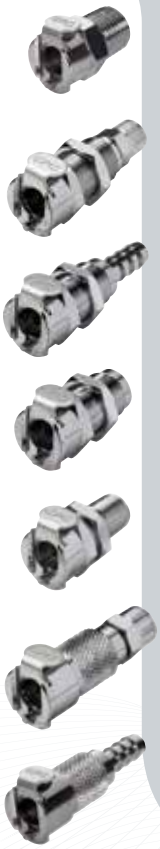
A = Height/Diameter
B = Total Length
D = Elbow Radial Length

Panel Dimensions

	PANEL OPENING	PANEL THICKNESS MAX.–MIN.	PANEL NUT HEX	PANEL NUT THREAD
COUPLING BODIES *(except male thread)*	see drawing	.50 – .05	5/8	1/2-24UNS
MALE THREAD	see drawing	.21 – .06	5/8	1/2-24UNS
COUPLING INSERTS	see drawing	.30 – .06	5/8	1/2-24UNS



Coupling Bodies • CHROME-PLATED BRASS



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

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.
†NOTE: CPC'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 CPC for more information.

Coupling Inserts • CHROME-PLATED BRASS

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	D
IN-LINE PIPE THREAD *(non-valved shown)*	1/8" NPT		MC2402	MCD2402	.58	1.03/1.43	
	1/8" BSPT		MC2402BSPT	MCD2402BSPT	.58/.72	1.03/1.43	
	1/4" NPT		MC2404	MCD2404	.65	1.08/1.43	

IN-LINE PIPE THREAD (FEMALE)	1/8" NPT Female		MC2602	MCD2602	.58	.95/1.65	
	1/4" NPT Female		MC2604	MCD2604	.72	1.15/1.82	
	1/4" BSPP Female		MC2604BSPP	MCD2604BSPP	.72	1.23/1.91	

PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	MC4004	MCD4004	.72	1.75/1.85	

PANEL MOUNT HOSE BARB	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	

IN-LINE FERRULELESS POLYTUBE FITTING, PTF†	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	

IN-LINE HOSE BARB	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	

IN-LINE FEMALE THREAD	10-32 UNF		MC281032	MCD281032	.58	.63/1.30	

ELBOW FERRULELESS POLYTUBE FITTING, PTF†	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

ELBOW HOSE BARB	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

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: CPC'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 CPC for more information.