PMC12 SERIES

Specifications

Pressure: Vacuum to 120 psi, 8.3 bar

Temperature:
32°F to 160°F (0°C to 71°C)

Materials:
Main components and valves: Polypropylene

Thumb latch: Stainless steel

Valve spring: 316 stainless steel

External spring and pin: Stainless steel

O-rings: EPDM

Sterilization:
Gamma: Up to 50 kGy irradiation

Color:
Almond

Tubing Sizes:
Microbore to 1/4" ID, Microbore 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 products in their own application conditions. Use the graph to the right as a guide.

The 1/8" flow polypropylene PMC12 offers many of the same configuration options as the PMC. The polypropylene material adds greater chemical resistance and is gamma sterilizable. The PMC12 also mates to small diameter rigid tubing. Available with a 1/4-28 flat bottom port and 1/4-28 UNF threads, these couplings eliminate the need to thread and re-thread common compression nuts each time a tubing connection is made.

Features	Benefits
Polypropylene material	Chemically resistant and gamma-sterilizable
EPDM o-ring	Greater chemical resistance
Colder thumb latch	One-hand connection and disconnection
Integral terminations	Fewer leak points, shorter assemblies, faster installations

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 below.

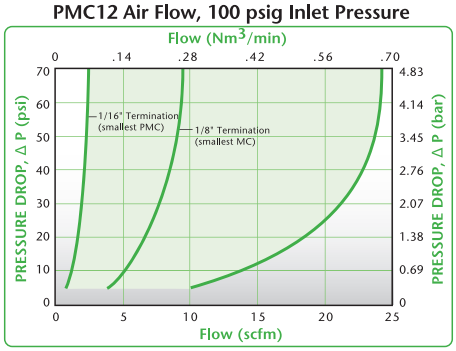
$$Q = C_V \sqrt{\frac{\Delta P}{S}}$$

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

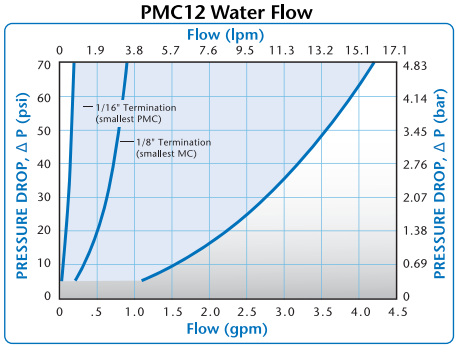
C_V Values for 1/8" Flow PMC12 Couplings

BODIES	PMC12 2004	PMCD12 2004	PMC12 2006	PMCD12 2006	PMC12 2202	PMCD12 2202	PMC12 2204	PMCD12 2204	PMC12 2402	PMCD12 2402	PMC12 2404	PMCD12 2404	PMC12 2602	PMC12 2304	PMC12 2104	PMCD12 2304	PMC12 2203	PMCD12 2203	PMC12 2201	PMCD12 2201
PMC100212	.40	.18	.50	.19	.25	.16	.50	.19	.50	.20	.51	.19	.50	.50	.38	.24	.30	.17	.03	.03
PMCD100212	.27	.18	.31	.18	.24	.16	.28	.20	.26	.20	.29	.18	.26	.26	.27	.24	.25	.17	.03	.03
PMC100412	.40	.21	.50	.24	.26	.18	.50	.24	.50	.20	.51	.24	.50	.50	.38	.26	.30	.19	.03	.03
PMCD100412	.29	.19	.32	.23	.25	.17	.30	.23	.27	.21	.28	.23	.27	.28	.29	.24	.25	.18	.03	.03
PMC120412	.40	.18	.50	.18	.25	.16	.40	.18	.40	.16	.36	.18	.40	.40	.38	.21	.30	.17	.03	.03
PMCD120412	.21	.17	.22	.17	.20	.16	.22	.17	.21	.17	.20	.17	.21	.22	.21	.18	.21	.16	.03	.03
PMC160212	.23	.15	.28	.18	.19	.14	.27	.15	.27	.15	.28	.18	.27	.27	.23	.16	.20	.14	.03	.03
PMCD160212	.19	.15	.19	.15	.17	.14	.19	.15	.18	.15	.18	.15	.18	.19	.19	.15	.18	.14	.03	.03
PMC160412	.33	.23	.44	.24	.24	.18	.44	.23	.44	.20	.38	.24	.38	.44	.33	.26	.26	.19	.03	.03
PMCD160412	.23	.17	.26	.21	.22	.16	.26	.21	.26	.19	.25	.21	.21	.26	.23	.24	.22	.16	.03	.03
PMC170312	.25	.20	.30	.20	.20	.17	.30	.20	.30	.19	.28	.20	.28	.30	.25	.18	.21	.17	.03	.03
PMCD170312	.20	.17	.20	.17	.19	.15	.21	.17	.19	.17	.20	.17	.19	.20	.20	.16	.19	.16	.03	.03
PMC170112	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.02
PMCD170112	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.02	.02

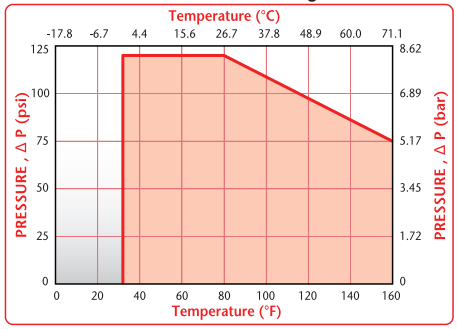
PMC12 Air Flow, 100 psig Inlet Pressure



PMC12 Water Flow



PMC12 Pressure Range



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.

SMART COUPLINGS WITH RFID

The IdentiQuik® Series of

smart couplings are RFID enabled couplings used on equipment and in processes. RFID is an identification method that relies on remotely writing and reading data. Smart coupling applications include: inventory level meters, surgical tool identification, product protection and many more.

IdentiQuik PMC Series

- **Identify misconnections:** eliminate out-of-sequence connections or misconnections due to operator error
- **Protect your brand:** prevent out-of-date, incorrect or misapplied products from being used
- **Prolong equipment life:** prevent the accidental or unintentional use of harmful media
- **Save time:** automatic documentation of package and media lot numbers, date codes and more

RFID Specifications

RF Communication Range:
Approximately 1"

Operating Voltage:
8-25 V standard,
5V only available

Power Consumption:
350mW maximum

Communications:
ASCII RS-232 (DB-9)

RFID Tag:
13.56 MHz
ISO-15693 - 112 bytes programmable

NOTE: RFID tags not approved for e-beam or gamma sterilization

Operating Temperature:
32°F to 150°F (0°C to 65°C)

Coupling Reader

POLYPROPYLENE

Product Dimensions (See drawing on page 22)

TERMINATION	TUBING SIZE	METRIC EQ.	SHUTOFF	A	B
IN-LINE	1/4" ID	6.4mm ID	iPMC12D4HP24A00	1.32	2.75
HOSE BARB					

Coupling Inserts

POLYPROPYLENE

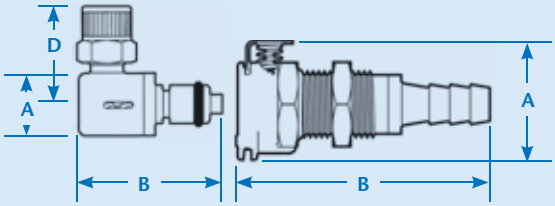
TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	C
IN-LINE	1/4" ID	6.4mm ID	iPMC124HPI		.75	1.63	1/2
HOSE BARB	1/4" ID	6.4mm ID		iPMC12D4HPI	.75	1.73	1/2

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.
NOTE: I-Code SL1 tags are available for existing applications, contact the factory for assistance.

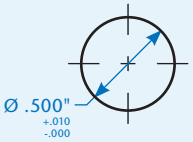
Materials are listed on page 20. Customized parts (materials, voltage, termination, cable length, etc.) available. Call for more information.

Don't forget: you can always visit www.colder.com for more product information.

Product Dimensions



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



	PANEL OPENING	MAX. PANEL THICKNESS	MIN. PANEL THICKNESS
COUPLING BODIES	see drawing	.50	.05

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

Coupling Bodies

POLYPROPYLENE

TERMINATION	THREAD SIZE		STRAIGHT THRU	SHUTOFF	A	B
IN-LINE PIPE THREAD	1/8" NPT		PMC100212	PMCD100212	.88	1.00
	1/8" BSPT		PMC100212BSPT	PMCD100212BSPT	.88	1.00
	1/4" NPT		PMC100412	PMCD100412	.88	1.10
	1/4" BSPT		PMC100412BSPT	PMCD100412BSPT	.88	1.10

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	PMC120412	PMCD120412	.79	1.72

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
PANEL MOUNT HOSE BARB	1/16" ID	1.6mm ID	PMC160112	PMCD160112	.88	1.40
	1/8" ID	3.2mm ID	PMC160212	PMCD160212	.88	1.65
	1/4" ID	6.4mm ID	PMC160412	PMCD160412	.88	1.85

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
IN-LINE FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	PMC130412	PMCD130412	.89	1.74

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
IN-LINE HOSE BARB	1/16" ID	1.6mm ID	PMC170112	PMCD170112	.89	1.42
	1/8" ID	3.2mm ID	PMC170212	PMCD170212	.89	1.67
	1/4" ID	6.4mm ID	PMC170412	PMCD170412	.89	1.87

PMC12 1/4-28 Coupling Bodies

POLYPROPYLENE

TERMINATION	SHUTOFF	A	B
PANEL MOUNT WITH A 1/4-28 FLAT BOTTOM PORT	PMCD18042812	0.88	1.57

TERMINATION	SHUTOFF	A	B
IN-LINE WITH A 1/4-28 FLAT BOTTOM PORT	PMCD19042812	0.89	1.57

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.

Coupling Inserts

POLYPROPYLENE

TERMINATION *IN-LINE PIPE THREAD*	**THREAD SIZE** 1/8" NPT		**STRAIGHT THRU** PMC240212	**SHUTOFF** PMCD240212	**A** .58	**B** 1.03/1.45		
TERMINATION *IN-LINE FERRULELESS POLYTUBE FITTING, PTF†*	**TUBING SIZE** 1/4" OD, .17" ID	**METRIC EQ.** 6.4mm OD, 4.3mm ID	**STRAIGHT THRU** PMC200412	**SHUTOFF** PMCD200412	**A** .58	**B** 1.15/1.58		
TERMINATION *IN-LINE HOSE BARB*	**TUBING SIZE** 1/16" ID 1/8" ID 1/4" ID	**METRIC EQ.** 1.6mm ID 3.2mm ID 6.4mm ID	**STRAIGHT THRU** PMC220112 PMC220212 PMC220412	**SHUTOFF** PMCD220112 PMCD220212 PMCD220412	**A** .50 .50 .50	**B** .80/1.47 1.05/1.67 1.20/1.71		
TERMINATION *ELBOW 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** PMC2102512 PMC210412	**SHUTOFF** PMCD2102512 PMCD210412	**A** .50 .50	**B** 1.09/1.21 1.17/1.21	**D** .77 .77	
TERMINATION *ELBOW HOSE BARB*	**TUBING SIZE** 1/8" ID 1/4" ID	**METRIC EQ.** 3.2mm ID 6.4mm ID	**STRAIGHT THRU** PMC230212 PMC230412	**SHUTOFF** PMCD230212 PMCD230412	**A** .50 .50	**B** 1.09/1.21 1.09/1.21	**D** .69 .90	

PMC12 1/4-28 Coupling Inserts

POLYPROPYLENE

TERMINATION *IN-LINE WITH 1/4-28 UNF THREADS*			**STRAIGHT THRU** PMC24042812	**SHUTOFF** PMCD24042812	**A** .50	**B** 1.48		
TERMINATION *PANEL MOUNT WITH A 1/4-28 FLAT BOTTOM PORT*				**SHUTOFF** PMCD48042812	**A** .72	**B** 1.55		

Nuts

TUBING SIZE	**DESCRIPTION**	**PART NUMBER**
1/16" and 1.8mm	1/4-28 Polypropylene Nut (natural)	2418900
1/8" and 3mm	1/4-28 Polypropylene Nut (natural)	2419000
1/16" and 1.8mm	1/4-28 Acetal Nut (black)	2419199
1/8" and 3mm	1/4-28 Acetal Nut (black)	2419299

Ferrules

TUBING SIZE	**DESCRIPTION**	**PART NUMBER**
1/16"	Ferrule, ETFE (blue)	2419300
1/8"	Ferrule, ETFE (yellow)	2419400
1.8mm	Ferrule, ETFE (green)	2419500
3.0mm	Ferrule, ETFE (orange)	2419600

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.