

# PMC SERIES CONNECTOR

The 1/8" flow PMC coupling covers a wide variety of general-purpose applications. Featuring the CPC thumb latch, the PMC is easier to use than ball-and-sleeve designs. One-hand connection/disconnection and integral terminations make the PMC the choice for ease of use and manufacture. This coupling is NuSeal® compatible.



## SPECIFICATIONS

### PRESSURE:

Vacuum to 120 psi, 8.3 bar

### TEMPERATURE:

-40°F to 180°F (-40°C to 82°C)

### MATERIALS:

**Main components and valves:** Acetal

**Thumb latch:** Stainless steel

**Valve spring:** 316 stainless steel

**External springs and pin:** Stainless steel

**O-rings:** Buna-N

### COLOR:

Natural white, others available

### TUBING SIZES:

1/16" to 1/4" ID, 1.6mm 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.*

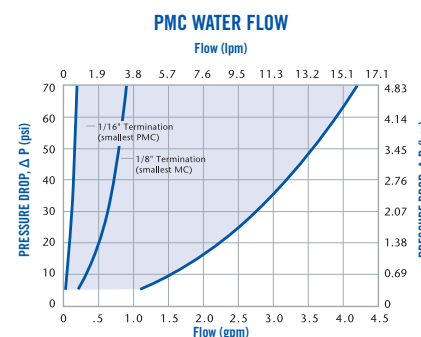
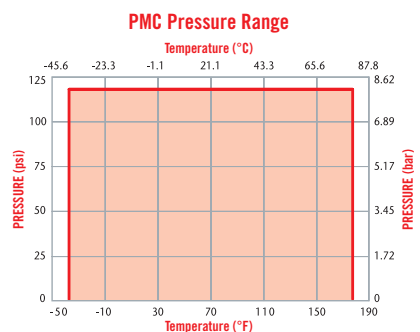
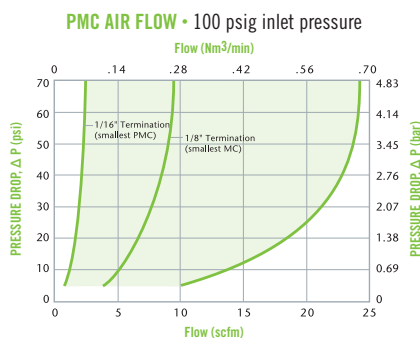


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## FEATURES

- Hose barb shroud → Extra protection for the 1/16" hose barb
- Integral terminations → Fewer leak points, shorter assemblies, faster installations
- Compatible → Mates with PMC12 and MC Series couplings (see pages 34 and 38)
- Clicks when connected → Assurance of a reliable connection

## BENEFITS



*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.*



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# NU-SEAL® QUICK DISCONNECT COUPLING

## 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

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



| TERMINATION       | TUBING SIZE | STRAIGHT THRU | SHUTOFF | A    | B    |
|-------------------|-------------|---------------|---------|------|------|
| IN-LINE HOSE BARB | 1/8" ID     | 3.2mm ID      | DSM2202 | 0.50 | 0.98 |

## 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 to the right.

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

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








### C<sub>v</sub> VALUES

### INSERTS

| BODIES   | INSERTS  |           |          |           |          |           |          |           |          |           |          |           |          |          |           |          |           |
|----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|----------|-----------|----------|-----------|
|          | PMC 2004 | PMCD 2004 | PMC 2006 | PMCD 2006 | PMC 2202 | PMCD 2202 | PMC 2204 | PMCD 2204 | PMC 2402 | PMCD 2402 | PMC 2404 | PMCD 2304 | PMC 2104 | PMC 2203 | PMCD 2203 | PMC 2201 | PMCD 2201 |
| PMC1002  | 0.40     | 0.18      | 0.50     | 0.19      | 0.25     | 0.16      | 0.50     | 0.19      | 0.50     | 0.20      | 0.51     | 0.19      | 0.38     | 0.30     | 0.17      | 0.03     | 0.03      |
| PMCD1002 | 0.27     | 0.18      | 0.31     | 0.18      | 0.24     | 0.16      | 0.28     | 0.20      | 0.26     | 0.20      | 0.29     | 0.18      | 0.27     | 0.25     | 0.17      | 0.03     | 0.03      |
| PMC1004  | 0.40     | 0.21      | 0.50     | 0.24      | 0.26     | 0.18      | 0.50     | 0.24      | 0.50     | 0.20      | 0.51     | 0.24      | 0.38     | 0.30     | 0.19      | 0.03     | 0.03      |
| PMCD1004 | 0.29     | 0.19      | 0.32     | 0.23      | 0.25     | 0.17      | 0.30     | 0.23      | 0.27     | 0.21      | 0.28     | 0.23      | 0.29     | 0.25     | 0.18      | 0.03     | 0.03      |
| PMC1204  | 0.40     | 0.18      | 0.50     | 0.18      | 0.25     | 0.16      | 0.40     | 0.18      | 0.40     | 0.16      | 0.36     | 0.18      | 0.38     | 0.30     | 0.17      | 0.03     | 0.03      |
| PMCD1204 | 0.21     | 0.17      | 0.22     | 0.17      | 0.20     | 0.16      | 0.22     | 0.17      | 0.21     | 0.17      | 0.20     | 0.17      | 0.21     | 0.21     | 0.16      | 0.03     | 0.03      |
| PMC1602  | 0.23     | 0.15      | 0.28     | 0.18      | 0.19     | 0.14      | 0.27     | 0.15      | 0.27     | 0.15      | 0.28     | 0.18      | 0.23     | 0.20     | 0.14      | 0.03     | 0.03      |
| PMCD1602 | 0.19     | 0.15      | 0.19     | 0.15      | 0.17     | 0.14      | 0.19     | 0.15      | 0.18     | 0.15      | 0.18     | 0.15      | 0.19     | 0.18     | 0.14      | 0.03     | 0.03      |
| PMC1604  | 0.33     | 0.23      | 0.44     | 0.24      | 0.24     | 0.18      | 0.44     | 0.23      | 0.44     | 0.20      | 0.38     | 0.24      | 0.33     | 0.26     | 0.19      | 0.03     | 0.03      |
| PMCD1604 | 0.23     | 0.17      | 0.26     | 0.21      | 0.22     | 0.16      | 0.26     | 0.21      | 0.26     | 0.19      | 0.25     | 0.21      | 0.23     | 0.22     | 0.16      | 0.03     | 0.03      |
| PMC1703  | 0.25     | 0.20      | 0.30     | 0.20      | 0.20     | 0.17      | 0.30     | 0.20      | 0.30     | 0.19      | 0.28     | 0.20      | 0.25     | 0.21     | 0.17      | 0.03     | 0.03      |
| PMCD1703 | 0.20     | 0.17      | 0.20     | 0.17      | 0.19     | 0.15      | 0.21     | 0.17      | 0.19     | 0.17      | 0.20     | 0.17      | 0.20     | 0.19     | 0.16      | 0.03     | 0.03      |
| PMC1701  | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03     | 0.03      | 0.03     | 0.02      |
| PMCD1701 | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03      | 0.03     | 0.03     | 0.03      | 0.02     | 0.02      |

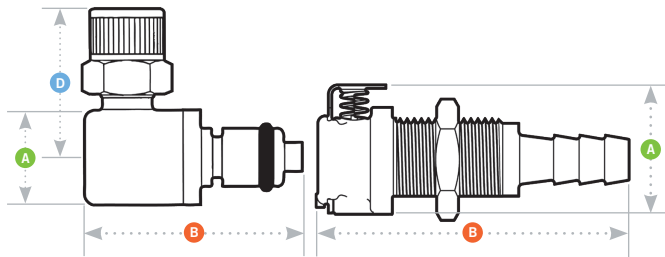
# PMC SERIES DIMENSIONS

## COUPLING BODIES - Acetal

| TERMINATION                                                                                                                             | TUBING/THREAD SIZE | METRIC EQ          | STRAIGHT THRU | SHUTOFF      | A           | B                      |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|---------------|--------------|-------------|------------------------|
|  <b>IN-LINE PIPE THREAD</b>                            | 1/8" NPT           |                    | PMC1002       | PMCD1002     | 0.79 (20.1) | 1 (25.4)               |
|                                                                                                                                         | 1/8" BSPT          |                    | PMC1002BSPT   | PMCD1002BSPT | 0.79 (20.1) | 1 (25.4)               |
|                                                                                                                                         | 1/4" NPT           |                    | PMC1004       | PMCD1004     | 0.79 (20.1) | 1.1 (27.9)             |
|                                                                                                                                         | 1/4" BSPT          |                    | PMC1004BSPT   | PMCD1004BSPT | 0.79 (20.1) | 1.1 (27.9)             |
|  <b>PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†</b> | —                  | 4.0mm OD, 2.0mm ID | PMC12M42      | PMCD12M42    | 0.77 (19.6) | 1.65 (41.9)            |
|                                                                                                                                         | 5/32" OD, 0.10" ID | 4.0mm OD, 2.5mm ID | PMC12025      | PMCD12025    | 0.77 (19.6) | 1.7 (43.2)             |
|                                                                                                                                         | 1/4" OD, 0.17" ID  | 6.4mm OD, 4.3mm ID | PMC1204       | PMCD1204     | 0.77 (19.6) | 1.72 (43.7)            |
|  <b>PANEL MOUNT HOSE BARB</b>                           | 1/16" ID           | 1.6mm ID           | PMC1601       | PMCD1601     | 0.77 (19.6) | 1.4 (35.6)             |
|                                                                                                                                         | 1/8" ID            | 3.2mm ID           | PMC1602       | PMCD1602     | 0.77 (19.6) | 1.65 (41.9)            |
|                                                                                                                                         | 3/16" ID           | 4.8mm ID           | PMC1603       | PMCD1603     | 0.77 (19.6) | 1.85 (47.0)            |
|                                                                                                                                         | 1/4" ID            | 6.4mm ID           | PMC1604       | PMCD1604     | 0.77 (19.6) | 1.85 (47.0)            |
|  <b>PANEL MOUNT FEMALE THREAD</b>                      | 10-32 UNF          |                    | PMC181032     | PMCD181032   | 0.77 (19.6) | 1.25 (31.8)            |
|  <b>IN-LINE FERRULELESS POLYTUBE FITTING, PTF†</b>     | —                  | 4.0mm OD, 2.0mm ID | PMC13M42      | PMCD13M42    | 0.81 (20.6) | 1.65 (41.9)            |
|                                                                                                                                         | 5/32" OD, 0.10" ID | 4.0mm OD, 2.5mm ID | PMC13025      | PMCD13025    | 0.81 (20.6) | 1.65 (41.9)            |
|                                                                                                                                         | 1/4" OD, 0.17" ID  | 6.4mm OD, 4.3mm ID | PMC1304       | PMCD1304     | 0.81 (20.6) | 1.75 (44.5)            |
|  <b>IN-LINE HOSE BARB</b>                             | 1/16" ID           | 1.6mm ID           | PMC1701       | PMCD1701     | 0.81 (20.6) | 1.41 (35.81)           |
|                                                                                                                                         | 1/8" ID            | 3.2mm ID           | PMC1702       | PMCD1702     | 0.81 (20.6) | 1.45/1.65 (36.8/41.9)  |
|                                                                                                                                         | 3/16" ID           | 4.8mm ID           | PMC1703       | PMCD1703     | 0.81 (20.6) | 1.65/1.85 (41.9/47.0)  |
|                                                                                                                                         | 1/4" ID            | 6.4mm ID           | PMC1704       | PMCD1704     | 0.81 (20.6) | 1.65/1.85 (41.91/47.0) |
|  <b>IN-LINE FEMALE THREAD</b>                        | 10-32 UNF          |                    | PMC191032     | PMCD191032   | 0.81 (20.6) | 1.25 (31.8)            |

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.

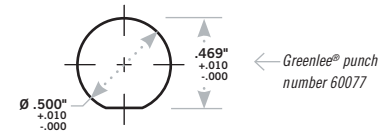
## PRODUCT DIMENSIONS











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

## PANEL DIMENSIONS

|                         | PANEL OPENING | PANEL THICKNESS MAX. - MIN. | PANEL NUT HEX | PANEL NUT THREAD |
|-------------------------|---------------|-----------------------------|---------------|------------------|
| <b>COUPLING BODIES</b>  | see drawing   | 0.50 - 0.05                 | 5/8           | 1/2-24UNS        |
| <b>COUPLING INSERTS</b> | 1/2           | 0.30 - 0.05                 | 5/8           | 1/2-24UNS        |



## COUPLING INSERTS - Acetal

| TERMINATION                                                                                                                                                   | TUBING/THREAD SIZE | METRIC EQ          | STRAIGHT THRU | SHUTOFF      | A           | B                     | D                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|---------------|--------------|-------------|-----------------------|-----------------------|
| <br><b>IN-LINE PIPE THREAD</b>                                               | 1/8" NPT           |                    | PMC2402       | PMCD2402     | 0.58 (14.7) | 1.03/1.45 (26.2/36.8) |                       |
|                                                                                                                                                               | 1/8" BSPT          |                    | PMC2402BSPT   | PMCD2402BSPT | 0.58 (14.7) | 1.03/1.44 (26.2/36.6) |                       |
|                                                                                                                                                               | 1/4" NPT           |                    | PMC2404       | PMCD2404     | 0.65 (16.5) | 1.13/1.42 (28.7/36.1) |                       |
|                                                                                                                                                               | 1/4" BSPT          |                    | PMC2404BSPT   | PMCD2404BSPT | 0.65 (16.5) | 1.13/1.42 (28.7/36.1) |                       |
| <br><b>PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF† (NON-VALVED SHOWN)</b> | 1/4" OD, 0.17" ID  | 6.4mm OD, 4.3mm ID | PMC4004       | PMCD4004     | 0.72 (18.3) | 1.70/1.82 (43.2/46.2) |                       |
| <br><b>PANEL MOUNT HOSE BARB</b>                                             | 1/16" ID           | 1.6mm ID           | PMC4201       | PMCD4201     | 0.72 (18.3) | 1.38/1.50 (35.1/38.1) |                       |
|                                                                                                                                                               | 1/8" ID            | 3.2mm ID           | PMC4202       | PMCD4202     | 0.72 (18.3) | 1.63/1.75 (41.4/44.5) |                       |
|                                                                                                                                                               | 3/16" ID           | 4.8mm ID           | PMC4203       | PMCD4203     | 0.72 (18.3) | 1.83/1.95 (46.5/49.5) |                       |
|                                                                                                                                                               | 1/4" ID            | 6.4mm ID           | PMC4204       | PMCD4204     | 0.72 (18.3) | 1.83/1.95 (46.5/49.6) |                       |
| <br><b>IN-LINE FERRULELESS POLYTUBE FITTING, PTF†</b>                        | —                  | 4.0mm OD, 2.0mm ID | PMC20M42      | PMCD20M42    | 0.58 (14.7) | 1.08/1.60 (27.4/40.6) |                       |
|                                                                                                                                                               | 5/32" OD, 0.10" ID | 4.0mm OD, 2.5mm ID | PMC20025      | PMCD20025    | 0.58 (14.7) | 1.13/1.65 (28.7/41.9) |                       |
|                                                                                                                                                               | 1/4" OD, 0.17" ID  | 6.4mm OD, 4.3mm ID | PMC2004       | PMCD2004     | 0.58 (14.7) | 1.15/1.57 (29.2/39.9) |                       |
|                                                                                                                                                               | 3/8" OD, 0.25" ID  | 9.5mm OD, 6.4mm ID | PMC2006       | PMCD2006     | 0.65 (16.5) | 1.40/1.52 (35.6/38.6) |                       |
| <br><b>IN-LINE HOSE BARB (NON-VALVED SHOWN)</b>                              | 1/16" ID           | 1.6mm ID           | PMC2201       | PMCD2201     | 0.5 (12.7)  | 0.80/1.47 (20.3/37.3) |                       |
|                                                                                                                                                               | 1/8" ID            | 3.2mm ID           | PMC2202       | PMCD2202     | 0.5 (12.7)  | 1.00/1.67 (25.4/42.4) |                       |
|                                                                                                                                                               | 3/16" ID           | 4.8mm ID           | PMC2203       | PMCD2203     | 0.5 (12.7)  | 1.20/1.88 (30.5/47.8) |                       |
|                                                                                                                                                               | 1/4" ID            | 6.4mm ID           | PMC2204       | PMCD2204     | 0.5 (12.7)  | 1.22/1.70 (31.0/43.2) |                       |
| <br><b>IN-LINE FEMALE THREAD</b>                                           | 10-32 UNF          |                    | PMC281032     | PMCD281032   | 0.58 (14.7) | 0.63/1.31 (16.0/33.3) |                       |
| <br><b>ELBOW FERRULELESS POLYTUBE FITTING, PTF†</b>                        | 5/32" OD, 0.10" ID | 4.0mm OD, 2.5mm ID | PMC21025      |              | 0.5 (12.7)  | 1.17 (29.7)           | 0.75 (19.1)           |
|                                                                                                                                                               | 1/4" OD, 0.17" ID  | 6.4mm OD, 4.3mm ID | PMC2104       | PMCD2104     | 0.5 (12.7)  | 1.17/1.21 (29.7/30.7) | 0.77 (19.6)           |
| <br><b>ELBOW HOSE BARB (NON-VALVED SHOWN)</b>                              | 1/8" ID            | 3.2mm ID           | PMC2302       | PMCD2302     | 0.5 (12.7)  | 0.85/1.21 (21.6/30.7) | 0.75/0.69 (19.1/17.5) |
|                                                                                                                                                               | 1/4" ID            | 6.4mm ID           | PMC2304       | PMCD2304     | 0.5 (12.7)  | 1.00/1.21 (25.4/30.7) | 0.95/0.90 (24.1/22.9) |

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.

NSF

### NSF OPTION AVAILABLE

This product has an NSF compatible product for food applications. Our food-grade couplings are superior to general fittings for fluid control because they incorporate built-in shutoff valves, enabling tubing to be disconnected without having to turn off the water supply. Scan the QR code to be taken to the NSF specific product web page.



WARRANTY: All sales are subject to Colder Products Company's limited express warranty set forth in the CPC catalog. Contact your local distributor or CPC Customer Service for warranty provisions.

Warning: Due to the wide variety of possible fluid media and operating conditions, unintended consequences may result from the use of this product, all of which are beyond the control of CPC. It is the user's responsibility to carefully determine and test for compatibility for use with their application. All such risks shall be assumed by the buyer.

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