

# PMC12 SERIES CONNECTOR



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

Polypropylene material

EPDM o-ring

CPC thumb latch

Integral terminations

## BENEFITS

Chemically resistant and gamma-sterilizable

Greater chemical resistance

One-hand connection and disconnection

Fewer leak points, shorter assemblies, faster installations

## 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

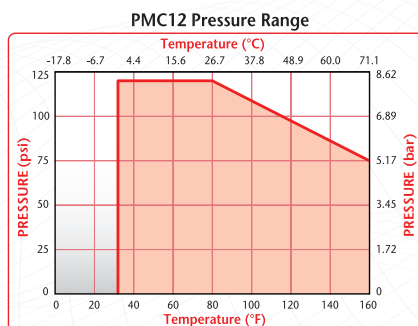
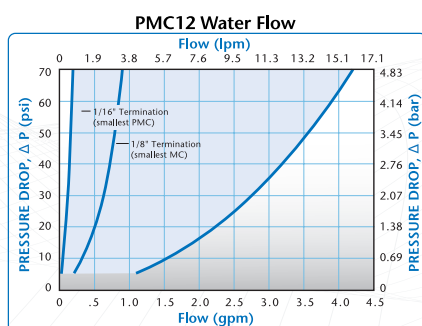
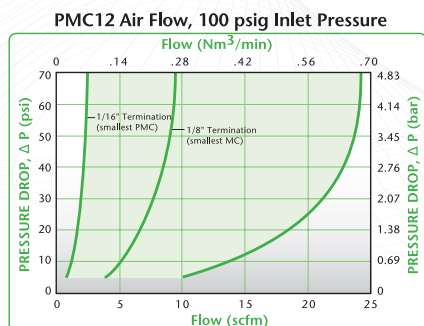
### COLOR:

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



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.

## NOTES:

## 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.

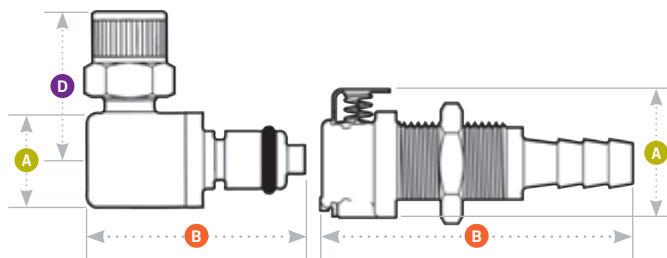
$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

Q = Flow rate in gallons per minute  
C<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 FOR 1/8" FLOW PMC12 COUPLINGS

| INSERTS<br>BODIES | PMC12<br>2004 | PMCD12<br>2004 | PMC12<br>2006 | PMCD12<br>2006 | PMC12<br>2202 | PMCD12<br>2202 | PMC12<br>2204 | PMCD12<br>2204 | PMC12<br>2402 | PMCD12<br>2402 | PMC12<br>2404 | PMCD12<br>2304 | PMC12<br>2602 | PMCD12<br>2304 | PMC12<br>2104 | PMCD12<br>2304 | PMC12<br>2203 | PMCD12<br>2203 | PMC12<br>2201 | PMCD12<br>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            | .03           | .02            |

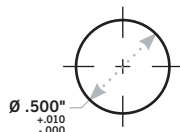
# PMC12 DIMENSIONS



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

## Panel Dimensions

|                         | PANEL<br>OPENING | PANEL THICKNESS<br>MAX. – MIN. | PANEL<br>NUT HEX | PANEL NUT<br>THREAD |
|-------------------------|------------------|--------------------------------|------------------|---------------------|
| <b>COUPLING BODIES</b>  | see drawing      | .50 – .05                      | 5/8              | 1/2-24UNS           |
| <b>COUPLING INSERTS</b> | see drawing      | .30 – .06                      | 5/8              | 1/2-24UNS           |



## Coupling Bodies • POLYPROPYLENE

|  | TERMINATION<br>IN-LINE<br>PIPE THREAD                   | TUBING/THREAD SIZE | METRIC EQ.         | STRAIGHT THRU | SHUTOFF        | <b>A</b> | <b>B</b> |
|--|---------------------------------------------------------|--------------------|--------------------|---------------|----------------|----------|----------|
|  |                                                         | 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     |
|  | PANEL MOUNT<br>FERRULELESS<br>POLYTUBE FITTING,<br>PTF† | 1/4" OD, .17" ID   | 6.4mm OD, 4.3mm ID | PMC120412     | PMCD120412     | .79      | 1.72     |
|  | PANEL MOUNT<br>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     |
|  | IN-LINE<br>FERRULELESS<br>POLYTUBE FITTING,<br>PTF†     | 1/4" OD, .17" ID   | 6.4mm OD, 4.3mm ID | PMC130412     | PMCD130412     | .89      | 1.74     |
|  | IN-LINE<br>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<br>PANEL MOUNT<br>WITH A 1/4-28 FLAT<br>BOTTOM PORT | SHUTOFF      | <b>A</b> | <b>B</b> |
|--|-----------------------------------------------------------------|--------------|----------|----------|
|  |                                                                 | PMCD18042812 | 0.88     | 1.57     |
|  | IN-LINE<br>WITH A 1/4-28 FLAT<br>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: 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.

## Coupling Inserts • POLYPROPYLENE

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                               |                                       |                                          |                                     |                                        |                   |                                    |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------|------------------------------------------|-------------------------------------|----------------------------------------|-------------------|------------------------------------|------------|
| <br><br><br><br><br> | <b>TERMINATION<br/>IN-LINE<br/>PIPE THREAD</b>                | <b>TUBING/THREAD SIZE</b><br>1/8" NPT | <b>METRIC EQ.</b>                        | <b>STRAIGHT THRU</b><br>PMC240212   | <b>SHUTOFF</b><br>PMCD240212           | <b>A</b><br>.58   | <b>B</b><br>1.03/1.45              | <b>D</b>   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>IN-LINE<br/>FERRULELESS<br/>POLYTUBE FITTING,<br/>PTF†</b> | 1/4" OD, .17" ID                      | 6.4mm OD, 4.3mm ID                       | PMC200412                           | PMCD200412                             | .58               | 1.15/1.58                          |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>IN-LINE<br/>HOSE BARB<br/>(non-valved shown)</b>           | 1/16" ID<br>1/8" ID<br>1/4" ID        | 1.6mm ID<br>3.2mm ID<br>6.4mm ID         | PMC220112<br>PMC220212<br>PMC220412 | PMCD220112<br>PMCD220212<br>PMCD220412 | .50<br>.50<br>.50 | .80/1.47<br>1.05/1.67<br>1.20/1.71 |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>IN-LINE<br/>STRAIGHT THREAD<br/>PORT SAE</b>               | 5/16 SAE-5                            |                                          | PMC24082012                         | PMCD24082012                           | .72               | 1.05/1.15                          |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>ELBOW<br/>FERRULELESS<br/>POLYTUBE FITTING,<br/>PTF†</b>   | 5/32" OD, .10" ID<br>1/4" OD, .17" ID | 4.0mm OD, 2.5mm ID<br>6.4mm OD, 4.3mm ID | PMC2102512<br>PMC210412             | PMCD2102512<br>PMCD210412              | .50<br>.50        | 1.09/1.21<br>1.17/1.21             | .77<br>.77 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>ELBOW<br/>HOSE BARB</b>                                    | 1/8" ID<br>1/4" ID                    | 3.2mm ID<br>6.4mm ID                     | PMC230212<br>PMC230412              | PMCD230212<br>PMCD230412               | .50<br>.50        | 1.09/1.21<br>1.09/1.21             | .69<br>.90 |

## PMC12 1/4-28 Coupling Inserts • POLYPROPYLENE

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

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