

# PLC SERIES CONNECTOR



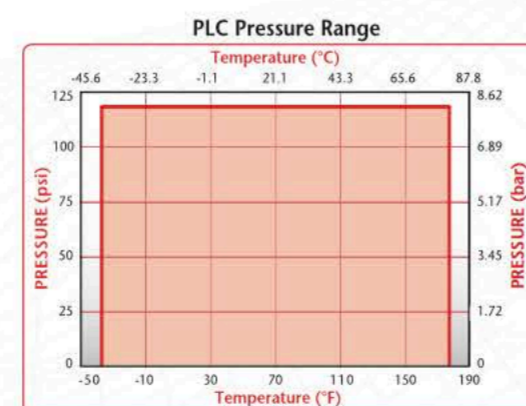
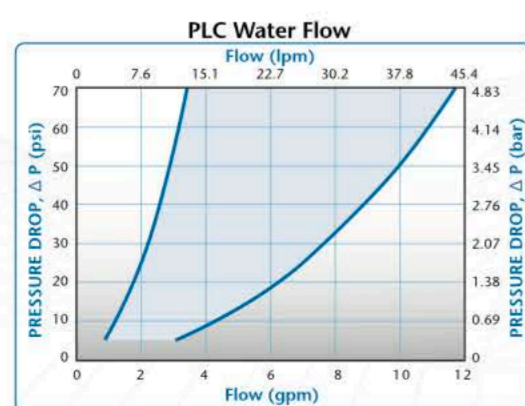
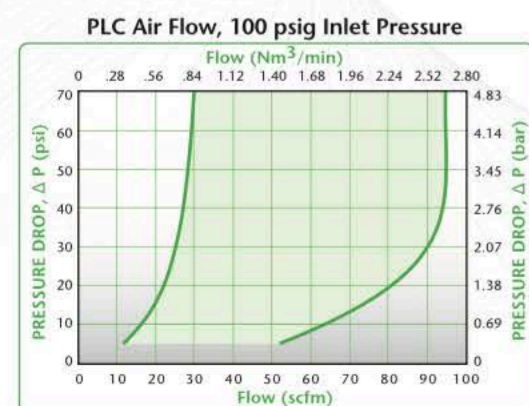
The 1/4" flow PLC Series is proven worldwide in thousands of applications and offers the widest selection of sizes and configurations. PLC couplings are injection molded from acetal thermoplastic and are resistant to most mild chemical solutions. One-hand connection/disconnection, plus integral terminations make the PLC Series the choice for ease of use and manufacture.

## FEATURES

- CPC thumb latch
- Integral terminations
- Clicks when connected
- Compatible

## BENEFITS

- One-hand connection and disconnection
- Fewer leak points, shorter assemblies, faster installations
- Assurance of a reliable connection
- Mates with LC and PLC12 Series couplings



## 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:

1/4" to 3/8" ID, 6.4mm to 9.5mm ID

### JG® TUBING SPECIFICATIONS:

Tube tolerances: 1/4" OD, +0.001/-0.004 | 3/8" OD, +0.001/-0.004

Tube Types: Plastic tube: Polyethylene, nylon, polyurethane. For soft or thin wall tubing with JG® terminations, tube supports are recommended.

Metal tube: Brass, copper and mild steel

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



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.

## Decoding Coupling Options

Often times, it can be an overwhelming task to decipher which coupling best fits your application needs. The chart below helps to decode popular CPC couplings.

| 1/4" FLOW OPTIONS | PRIMARY MATERIAL           | O-RING | APPLICATION BENEFITS  |
|-------------------|----------------------------|--------|---|
| PLC               | Acetal                     | Buna-N | General purpose plastic connector with metal latch              |
| PLC12             | Polypropylene              | EPDM   | Expanded chemical compatibility                                 |
| LC                | Chrome-Plated Brass        | Buna-N | Higher operating temperature and pressure                       |
| APC               | Acetal                     | Buna-N | Plastic thumb latch   |
| BREAKAWAY®        | Acetal                     | Buna-N | Breakaway latch   |
| NS4               | Glass-filled polypropylene | EPDM   | Drybreak, non-spill connect and disconnect, even under pressure |

For further information please contact CPC Customer Service at 1-800-444-2474 or 651-645-0091.

## 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 1/4" FLOW PLC COUPLINGS

| BODIES | INSERTS   | PLC 20004 | PLCD 20004 | PLC 20006 | PLCD 20006 | PLC 22004 | PLCD 22004 | PLC 22006 | PLCD 22006 | PLC 24004 | PLCD 24004 | PLC 24006 | PLCD 24006 | PLC 26004 |
|--------|-----------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
|        | PLC10004  | .40       | .36        | 1.05      | .58        | .83       | .56        | 1.40      | .82        | 1.40      | .75        | 1.40      | .77        | .83       |
|        | PLCD10004 | .36       | .31        | .73       | .48        | .66       | .41        | .82       | .50        | .80       | .45        | .77       | .45        | .81       |
|        | PLC10006  | .40       | .36        | 1.05      | .60        | .83       | .56        | 1.40      | .81        | 1.40      | .76        | 1.40      | .76        | .83       |
|        | PLCD10006 | .37       | .31        | .81       | .47        | .70       | .43        | 1.02      | .51        | .98       | .46        | .99       | .48        | .98       |
|        | PLC12006  | .38       | .36        | .84       | .63        | .74       | .56        | 1.14      | .75        | 1.14      | .70        | 1.14      | .72        | .74       |
|        | PLCD12006 | .38       | .33        | .78       | .49        | .68       | .44        | .84       | .49        | .81       | .43        | .82       | .44        | .81       |
|        | PLC16004  | .38       | .37        | .87       | .54        | .95       | .51        | 1.00      | .70        | .95       | .64        | 1.00      | .66        | .95       |
|        | PLCD16004 | .37       | .31        | .61       | .44        | .57       | .41        | .78       | .44        | .78       | .43        | .75       | .46        | .78       |
|        | PLC16006  | .38       | .37        | 1.00      | .57        | .95       | .53        | 1.40      | .80        | 1.40      | .71        | 1.40      | .73        | 1.40      |
|        | PLCD16006 | .38       | .32        | .71       | .49        | .63       | .42        | .89       | .51        | .96       | .45        | .92       | .49        | .97       |