

# PLC<sup>®</sup> SERIES CONNECTOR

The 1/4" flow PLC<sup>®</sup> 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.



## 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<sup>®</sup> 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<sup>®</sup> terminations, tube supports are recommended.

**Metal tube:** Brass, copper and mild steel



[cpcworldwide.com/PLC](http://cpcworldwide.com/PLC)

## FEATURES

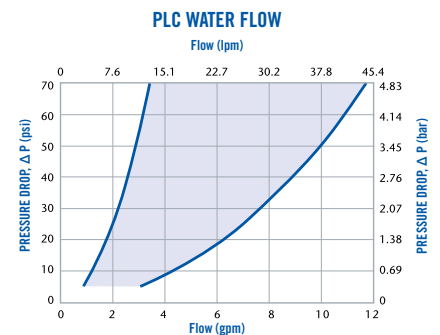
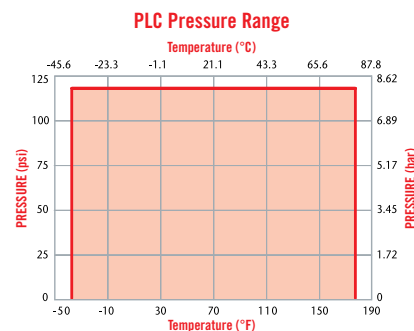
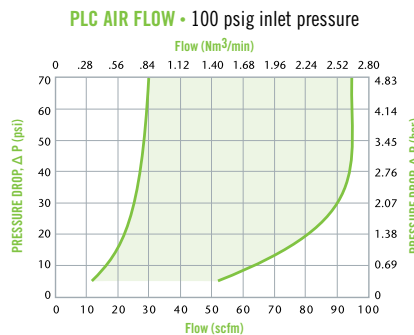
CPC thumb latch → One-hand connection and disconnection

Integral terminations → Fewer leak points, shorter assemblies, faster installations

Clicks when connected → Assurance of a reliable connection

Compatible → Mates with LC and PLC12 Series couplings

## 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.



## 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.



## 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

	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
<b>BODIES</b>													
PLC10004	0.40	0.36	1.05	0.58	0.83	0.56	1.40	0.82	1.40	0.75	1.40	0.77	0.83
PLCD10004	0.36	0.31	0.73	0.48	0.66	0.41	0.82	0.50	0.80	0.45	0.77	0.45	0.81
PLC10006	0.40	0.36	1.05	0.60	0.83	0.56	1.40	0.81	1.40	0.76	1.40	0.76	0.83
PLCD10006	0.37	0.31	0.81	0.47	0.70	0.43	1.02	0.51	0.98	0.46	0.99	0.48	0.98
PLC12006	0.38	0.36	0.84	0.63	0.74	0.56	1.14	0.75	1.14	0.70	1.14	0.72	0.74
PLCD12006	0.38	0.33	0.78	0.49	0.68	0.44	0.84	0.49	0.81	0.43	0.82	0.44	0.81
PLC16004	0.38	0.37	0.87	0.54	0.95	0.51	1.00	0.70	0.95	0.64	1.00	0.66	0.95
PLCD16004	0.37	0.31	0.61	0.44	0.57	0.41	0.78	0.44	0.78	0.43	0.75	0.46	0.78
PLC16006	0.38	0.37	1.00	0.57	0.95	0.53	1.40	0.80	1.40	0.71	1.40	0.73	1.40
PLCD16006	0.38	0.32	0.71	0.49	0.63	0.42	0.89	0.51	0.96	0.45	0.92	0.49	0.97

# PLC® SERIES DIMENSIONS

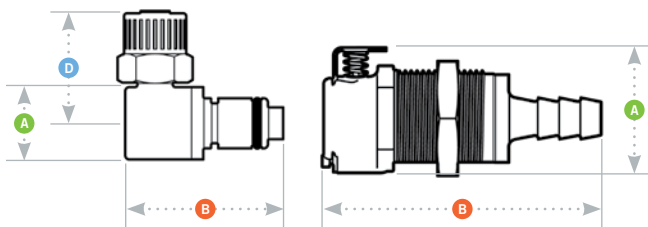
## COUPLING BODIES - Acetal

TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
 <b>IN-LINE PIPE THREAD</b>	1/4" NPT		PLC10004	PLCD10004	0.9 (22.9)	1.17 (29.7)
	1/4" BSPT		PLC10004BSPT	PLCD10004BSPT	0.9 (22.9)	1.15 (29.2)
	3/8" NPT		PLC10006	PLCD10006	0.9 (22.9)	1.15 (29.2)
	3/8" BSPT		PLC10006BSPT	PLCD10006BSPT	0.9 (22.9)	1.15 (29.2)
 <b>PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†</b>	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	PLC12004	PLCD12004	0.88 (22.4)	1.87 (47.5)
	–	8.0mm OD, 6.0mm ID	PLC120M8	PLCD120M8	0.88 (22.4)	1.95 (49.5)
	3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC12006	PLCD12006	0.88 (22.4)	1.95 (49.5)
	–	10.0mm OD, 8.0mm ID	PLC120M10	PLCD120M10	0.88 (22.4)	1.95 (49.5)
 <b>PANEL MOUNT HOSE BARB</b>	1/4" ID	6.4mm ID	PLC16004	PLCD16004	0.88 (22.4)	1.95 (49.5)
	5/16" ID	7.9mm ID	PLC16005	PLCD16005	0.88 (22.4)	1.95 (49.5)
	3/8" ID	9.5mm ID	PLC16006	PLCD16006	0.88 (22.4)	1.95 (49.5)
 <b>PANEL MOUNT JG® PUSH-TO-CONNECT</b>	1/4" OD	6.4mm OD	PLC11004	PLCD11004	0.88 (22.4)	1.95 (49.5)
 <b>IN-LINE FERRULELESS POLYTUBE FITTING, PTF†</b>	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	PLC13004	PLCD13004	0.94 (23.9)	1.82 (46.2)
	–	8.0mm OD, 6.0mm ID	PLC130M8	PLCD130M8	0.94 (23.9)	1.95 (49.5)
	3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC13006	PLCD13006	0.94 (23.9)	1.95 (49.5)
	–	10.0mm OD, 8.0mm ID	PLC130M10	PLCD130M10	0.94 (23.9)	1.95 (49.5)
 <b>IN-LINE HOSE BARB</b>	1/4" ID	6.4mm ID	PLC17004	PLCD17004	0.94 (23.9)	1.80/1.95 (45.7/49.5)
	5/16" ID	7.9mm ID	PLC17005	PLCD17005	0.94 (23.9)	1.95 (49.5)
	3/8" ID	9.5mm ID	PLC17006	PLCD17006	0.94 (23.9)	1.80/1.95 (45.7/49.5)
 <b>IN-LINE JG® PUSH-TO-CONNECT</b>	1/4" OD	6.4mm OD	PLC14004	PLCD14004	0.94 (23.9)	1.95 (49.5)
	3/8" OD	9.5mm OD	PLC14006	PLCD14006	0.94 (23.9)	2.09 (53.1)
(See page 167 for JG accessories)						

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 Polytube Fitting terminations do not require ferrules to achieve a secure connection, which makes them easier to use and reuse. PTF fittings are designed for semi-rigid tubing, i.e., polyethylene, nylon, polyurethane, etc. NOTE: JG is a registered trademark of John Guest USA, Inc.

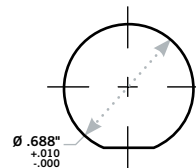
## PRODUCT DIMENSIONS



- 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	13/16	11/16-24UNEF
<b>COUPLING INSERTS</b>	see drawing	0.30 – 0.05	13/16	11/16-24UNEF



## COUPLING INSERTS - Acetal

	TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B	D
	IN-LINE PIPE THREAD	1/4" NPT		PLC24004	PLCD24004	0.72 (18.3)	1.25/1.66 (31.8/42.2)	
		1/4" BSPT		PLC24004BSPT	PLCD24004BSPT	0.72 (18.3)	1.53/1.66 (38.9/42.2)	
		3/8" NPT		PLC24006	PLCD24006	0.87 (22.1)	1.25/1.63 (31.8/41.4)	
		3/8" BSPT		PLC24006BSPT	PLCD24006BSPT	0.87 (22.1)	1.51/1.63 (38.4/41.4)	
	PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	PLC40004	PLCD40004	0.94 (23.9)	1.78/1.91 (45.2/48.5)	
		–	8.0mm OD, 6.0mm ID	PLC400M8	PLCD400M8	0.94 (23.9)	1.91/2.03 (48.5/51.6)	
		3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC40006	PLCD40006	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
		–	10.0mm OD, 8.0mm ID	PLC400M10	PLCD400M10	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
	PANEL MOUNT HOSE BARB	1/4" ID	6.4mm ID	PLC42004	PLCD42004	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
		5/16" ID	7.9mm ID	PLC42005	PLCD42005	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
		3/8" ID	9.5mm ID	PLC42006	PLCD42006	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
	PANEL MOUNT JG® PUSH-TO-CONNECT	1/4" OD	6.4mm OD	PLC41004	PLCD41004	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
	IN-LINE FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	PLC20004	PLCD20004	0.72 (18.3)	1.25/1.88 (31.8/73.2)	
		–	8.0mm OD, 6.0mm ID	PLC200M8	PLCD200M8	0.72 (18.3)	1.38/1.82 (35.1/46.2)	
		3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC20006	PLCD20006	0.72 (18.3)	1.38/1.82 (35.1/46.2)	
		–	10.0mm OD, 8.0mm ID	PLC200M10	PLCD200M10	0.72 (18.3)	1.38/1.82 (35.1/46.2)	
	IN-LINE HOSE BARB	1/4" ID	6.4mm ID	PLC22004	PLCD22004	0.62 (15.7)	1.35/1.99 (34.3/50.6)	
		5/16" ID	7.9mm ID	PLC22005	PLCD22005	0.62 (15.7)	1.35/1.99 (34.3/50.6)	
		3/8" ID	9.5mm ID	PLC22006	PLCD22006	0.62 (15.7)	1.36/1.81 (34.5/46.0)	
	IN-LINE JG® PUSH-TO-CONNECT	1/4" OD	6.4mm OD	PLC29004	PLCD29004	0.62 (15.7)	1.35/1.95 (34.3/49.5)	
		3/8" OD	9.5mm OD	PLC29006	PLCD29006	0.78 (19.8)	1.51/2.11 (38.4/53.6)	
	ELBOW FERRULELESS POLYTUBE FITTING, PTF†	3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC21006	PLCD21006	.61/.62 (15.45/15.8)	1.22/1.35 (31.0/34.3)	0.85/0.96 (21.6/24.4)
	ELBOW HOSE BARB	1/4" ID	6.4mm ID	PLC23004	PLCD23004	.67/.63 (17.0/16.0)	1.10/1.28 (27.9/32.5)	0.85/0.96 (21.6/24.4)
		3/8" ID	9.5mm ID	PLC23006	PLCD23006	.67/.63 (17.0/16.0)	1.25/1.28 (31.8/32.5)	0.90/0.96 (22.9/24.4)

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