

# PLC12 SERIES CONNECTOR



The **1/4" flow polypropylene PLC12** offers many of the same configuration options as the PLC. The polypropylene material adds greater chemical resistance for more demanding applications. PLC12 couplings are also gamma sterilizable. PLC12 couplings are also gamma sterilizable and available with optional RFID (Radio Frequency Identification) capability (see page 96).

## FEATURES

Polypropylene material

EPDM o-rings

CPC thumb latch

Integral terminations

## BENEFITS

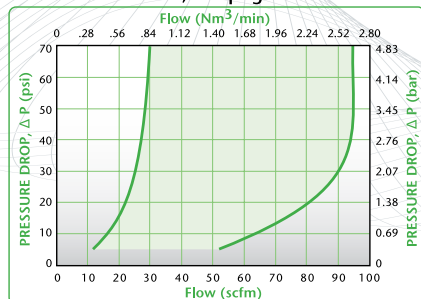
Chemically resistant and gamma sterilizable

Greater chemical resistance

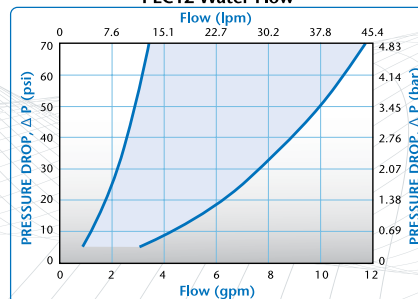
One-hand connection and disconnection

Fewer leak points, shorter assemblies, faster installations

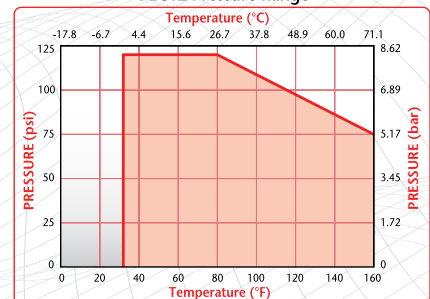
PLC12 Air Flow, 100 psig Inlet Pressure



PLC12 Water Flow



PLC12 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.

## 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 springs and pin:** Stainless steel

**O-rings:** EPDM

### STERILIZATION:

**Gamma:** Up to 50 kGy irradiation

### COLOR:

Almond

### TUBING SIZES:

1/4" to 3/8" ID, 6.4mm to 9.5mm 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's products in their own application conditions. Use the graph at the right as a guide.

PLC12 Couplings are gamma sterilizable; see page 162 for more information on sterilization and disinfection

## 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)

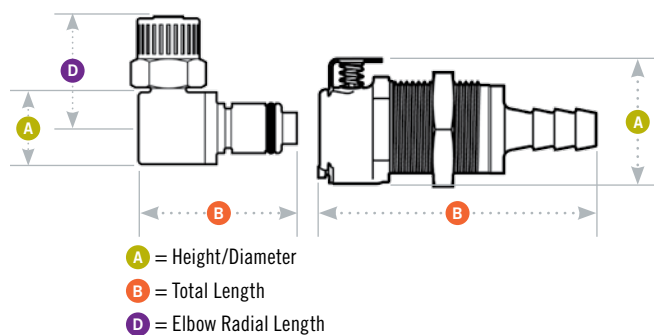
S = Specific gravity of liquid

### C<sub>v</sub> VALUES FOR 1/4" FLOW PLC12 COUPLINGS

	PLC12 20004	PLCD12 20004	PLC12 20006	PLCD12 20006	PLC12 22004	PLCD12 22004	PLC12 22006	PLCD12 22006	PLC12 24004	PLCD12 24004	PLC12 24006	PLCD12 24006	PLC12 26004
BODIES	INSERTS												
PLC1000412	.40	.36	1.05	.58	.83	.56	1.40	.82	1.40	.75	1.40	.77	.83
PLCD1000412	.36	.31	.73	.48	.66	.41	.82	.50	.80	.45	.77	.45	.81
PLC1000612	.40	.36	1.05	.60	.83	.56	1.40	.81	1.40	.76	1.40	.76	.83
PLCD1000612	.37	.31	.81	.47	.70	.43	1.02	.51	.98	.46	.99	.48	.98
PLC1200612	.38	.36	.84	.63	.74	.56	1.14	.75	1.14	.70	1.14	.72	.74
PLCD1200612	.38	.33	.78	.49	.68	.44	.84	.49	.81	.43	.82	.44	.81
PLC1600412	.38	.37	.87	.54	.95	.51	1.00	.70	.95	.64	1.00	.66	.95
PLCD1600412	.37	.31	.61	.44	.57	.41	.78	.44	.78	.43	.75	.46	.78
PLC1600612	.38	.37	1.00	.57	.95	.53	1.40	.80	1.40	.71	1.40	.73	1.40
PLCD1600612	.38	.32	.71	.49	.63	.42	.89	.51	.96	.45	.92	.49	.97

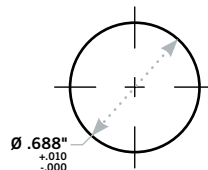
### NOTES:

# PLC12 DIMENSIONS



## Panel Dimensions

	PANEL OPENING	PANEL THICKNESS MAX.-MIN.	PANEL NUT HEX	PANEL NUT THREAD
COUPLING BODIES	see drawing	.30 - .02	13/16	11/16-24UNEF
COUPLING INSERTS	see drawing	.30 - .02	13/16	11/16-24UNEF



## Coupling Bodies • POLYPROPYLENE



### TERMINATION IN-LINE PIPE THREAD

### PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†

### PANEL MOUNT HOSE BARB

### IN-LINE FERRULELESS POLYTUBE FITTING, PTF†

### IN-LINE HOSE BARB

### IN-LINE SOFTUBE™ FITTING

### TUBING/THREAD SIZE METRIC EQ.

1/4" NPT  
1/4" BSPT  
3/8" NPT  
3/8" BSPT

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

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

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

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

3/8" OD, 1/4" ID 9.5mm OD, 6.4mm ID  
1/2" OD, 3/8" ID 12.7mm OD, 9.5mm ID

### STRAIGHT THRU

PLC1000412  
PLC1000412BSPT  
PLC1000612  
PLC1000612BSPT

PLC1200612

PLC1600412  
PLC1600612

PLC1300612

PLC1700412  
PLC1700612

### SHUTOFF

PLCD1000412  
PLCD1000412BSPT  
PLCD1000612  
PLCD1000612BSPT

PLCD1200612

PLCD1600412  
PLCD1600612

PLCD1300612

PLCD1700412  
PLCD1700612

PLCD17040612 1.02 2.20  
PLCD17060812 1.02 2.36

A 1.00 1.15  
1.00 1.15  
1.00 1.15  
1.00 1.15

1.00 1.95

1.00 1.95

1.02 1.96

1.02 1.96

## PLC12 Coupling Readers • POLYPROPYLENE



### TERMINATION IN-LINE HOSE BARB (RS-232 Interface)

### IN-LINE HOSE BARB (USB Interface)

TUBING/THREAD SIZE METRIC EQ.  
1/4" ID 6.4mm ID  
3/8" ID 9.5mm ID

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

### STRAIGHT THRU

SHUTOFF  
iPLCDR1700400  
iPLCDR1700600

iPLCDR1700401  
iPLCDR1700601

A 1.39 2.78  
1.39 2.78

1.00 1.38/2.05  
1.05 1.74/1.87

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.  
†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.

## Coupling Inserts • POLYPROPYLENE



### TERMINATION IN-LINE PIPE THREAD

### PANEL MOUNT HOSE BARB

### IN-LINE FERRULELESS POLYTUBE FITTING, PTF†

### IN-LINE HOSE BARB

### IN-LINE SOFTUBE™ FITTING

### ELBOW FERRULELESS POLYTUBE FITTING, PTF†

### ELBOW HOSE BARB

### IN-LINE HOSE BARB (RS-232 Interface)

### ELBOW HOSE BARB (RS-232 Interface)

### TUBING/THREAD SIZE METRIC EQ.

### STRAIGHT THRU

### SHUTOFF

A

B

D

1/4" NPT			PLC2400412	PLCD2400412	.72	1.26/1.67	
1/4" ID	6.4mm ID		PLC4200412	PLCD4200412	.94	1.91/2.05	
3/8" ID	9.5mm ID		PLC4200612	PLCD4200612	.94	1.91/2.05	
3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID		PLC2000612	PLCD2000612	.72	1.68/1.82	
1/4" ID	6.4mm ID		PLC2200412	PLCD2200412	.63	1.35/2.00	
3/8" ID	9.5mm ID		PLC2200612	PLCD2200612	.63	1.35/1.82	
3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID			PLCD22040612	.72	2.23	
1/2" OD, 3/8" ID	12.7mm OD, 9.5mm ID			PLCD22060812	.72	2.18	
3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID		PLC2100612	PLCD2100612	.61/.62	1.29/1.36	.95
1/4" ID	6.4mm ID		PLC2300412	PLCD2300412	.63	1.22/1.36	.96
3/8" ID	9.5mm ID		PLC2300612	PLCD2300612	.63	1.28/1.42	.96
1/4" ID	6.4mm ID		iPLCT2200400	iPLCDT2200400	1.39	2.78	
3/8" ID	9.5mm ID		iPLCT2200600	iPLCDT2200600	1.39	2.78	
1/4" ID	6.4mm ID		iPLCT2300400	iPLCDT2300400	1.48	1.27/1.40	
3/8" ID	9.5mm ID		iPLCT2300600	iPLCDT2300600	1.48	1.33/1.46	

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.

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