

# APC SERIES CONNECTOR

The 1/4" flow APC Series couplings feature a plastic thumb latch, fewer moving parts and a smooth contoured design to deliver ease-of-use and excellent flow in a compact size. The APC Series includes couplings with valves and thumb latch shrouds. A more rugged design on some models adds durability to increase the APC's application range.



## 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:** Acetal

**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.



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

## FEATURES

Plastic thumb latch



## BENEFITS

No exposed metal parts

Shrouded thumb latch



Protects against accidental disconnects

Integral terminations



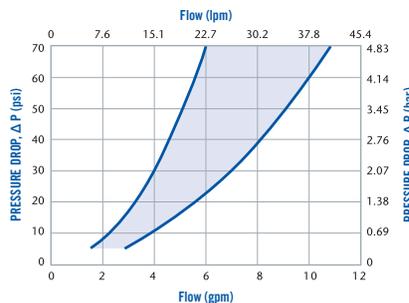
Fewer leak points, shorter assemblies, faster installations

Compatibility

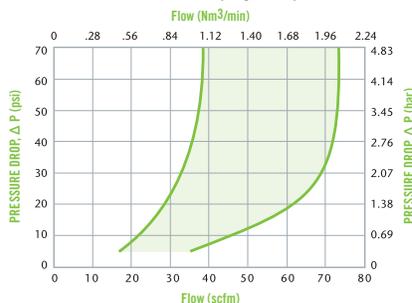


Mates with most EFC couplings

APC WATER FLOW



APC AIR FLOW • 100 psig inlet pressure



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.

## DID YOU KNOW

The shelf life of a connector is dependent upon the connector materials and the storage conditions. CPC manufactures quick disconnect couplings and connections made from a variety of metal, plastic and elastomeric raw materials. In general, it is best to store any CPC product in an environment shielded from light at a temperature between 50°F and 90°F.

The shelf life of CPC couplings and connections is estimated to be 3 years minimum if the storage conditions comply with those shown above.

**Note:** For product containing lubricated o-rings, the lubricant will dry out over time. Prior to use, it may be advisable to re-lubricate external o-rings. For product containing silicone o-rings, if lube is allowable, use of a synthetic lube is recommended.



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## 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

	APC 20004	APCD 20004	APC 20006	APCD 20006	APC 22004	APCD 22004	APC 22006	APCD 22006	APC 24004	APCD 24004	APC 24006	APCD 24006
<b>BODIES</b>												
APC10004	0.4	0.4	1.2	0.9	1.0	0.9	2.0	0.9	1.9	0.8	1.7	0.8
APCD10004	0.36	0.4	1.0	0.7	1.0	0.7	0.8	0.7	1.2	0.6	0.8	0.6
APC10006	0.4	0.4	1.2	0.9	1.2	0.7	1.8	0.9	2.0	0.9	1.7	0.8
APCD10006	0.37	0.4	1.3	0.8	0.6	0.5	1.1	0.7	1.3	0.7	1.0	0.7
APC13004SH	0.38	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.4
APCD13004SH	0.38	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
APC13006SH	0.38	0.4	1.0	0.7	0.9	0.6	1.1	0.7	1.1	0.7	1.0	0.7
APCD13006SH	0.37	0.4	0.8	0.6	0.7	0.5	0.8	0.6	0.9	0.6	0.8	0.6
APC17004SH	0.38	0.4	0.8	0.6	1.0	0.7	0.9	0.7	0.8	0.6	0.7	0.6
APCD17004SH	0.38	0.4	0.7	0.5	0.8	0.6	0.7	0.6	0.7	0.5	0.6	0.5
APC17006SH	0.4	0.4	1.2	0.9	1.4	0.9	1.4	0.9	2.0	0.9	1.9	0.8
APCD17006SH	0.4	0.4	1.2	0.8	1.3	0.8	1.2	0.7	1.2	0.7	1.1	0.7

# APC SERIES DIMENSIONS

## COUPLING BODIES - Acetal

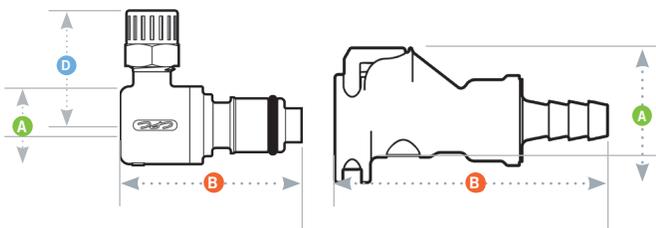
TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
 <b>IN-LINE PIPE THREAD</b>	1/4" NPT		APC10004	APCD10004	0.93 (23.6)	1.4 (25.6)
	1/4" BSPT		APC10004BSPT	APCD10004BSPT	0.93 (23.6)	1.4 (25.6)
	3/8" NPT		APC10006	APCD10006	0.93 (23.6)	1.4 (25.6)
	3/8" BSPT		APC10006BSPT	APCD10006BSPT	0.93 (23.6)	1.4 (25.6)
 <b>IN-LINE HOSE BARB</b>	1/4" ID	6.4mm ID	APC17004		0.93 (23.6)	1.4 (25.6)
	3/8" ID	9.5mm ID	APC17006		0.93 (23.6)	1.4 (25.6)
 <b>IN-LINE WITH SHROUD FERRULELESS POLYTUBE FITTING, PTF†</b>	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	APC13004SH	APCD13004SH	1.3 (33.0)	1.94 (49.3)
		8.0mm OD, 6.0mm ID	APC130M8SH	APCD130M8SH	1.3 (33.0)	2.07 (52.6)
	3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID	APC13006SH	APCD13006SH	1.3 (33.0)	2.07 (52.6)
		10.0mm OD, 8.0mm ID	APC130M10SH		1.3 (33.0)	2.07 (52.6)
 <b>IN-LINE HOSE BARB</b>	1/4" ID	6.4mm ID	APC17004SH	APCD17004SH	1.3 (33.0)	2.07 (52.6)
	3/8" ID	9.5mm ID	APC17006SH	APCD17006SH	1.3 (33.0)	2.07 (52.6)
 <b>PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†</b>	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	APC12004	APCD12004	1.03 (26.2)	1.97 (50.0)
		8.0mm OD, 6.0mm ID	APC120M8	APCD120M8	1.03 (26.2)	2.1 (53.3)
	3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID		APCD12006	1.03 (26.2)	2.1 (53.3)
		10.0mm OD, 8.0mm ID		APCD120M10	1.03 (26.2)	2.1 (53.3)
 <b>PANEL MOUNT HOSE BARB</b>	1/4" ID	6.4mm ID	APC16004	APCD16004	1.03 (26.2)	2.1 (53.3)
	5/16" ID	7.9mm ID	APC16005	APCD16005	1.03 (26.2)	2.1 (53.3)
	3/8" ID	9.5mm ID	APC16006	APCD16006	1.03 (26.2)	2.1 (53.3)
 <b>IN-LINE SNAP-IN</b>				APCD3400MGRY	1.02 (25.9)	1.30 (33)

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.

## ACCESSORIES

DESCRIPTION	MATERIAL	PART NO.
<b>PANEL MOUNT GASKET REPLACEMENT:</b> For sealing panel mount bodies listed above	Buna-N	1830300

## PRODUCT DIMENSIONS

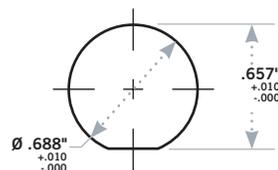


A = Height/Diameter

B = Total Length

## PANEL DIMENSIONS

	PANEL OPENING	PANEL THICKNESS MAX.-MIN.	PANEL NUT HEX	PANEL NUT THREAD
<b>COUPLING BODIES</b>	see drawing	0.05 – 0.02	13/16	11/16-24UNF



## COUPLING INSERTS - Acetal

TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B	D
 <b>IN-LINE PIPE THREAD</b>	1/4" NPT		APC24004	APCD24004	0.72 (18.3)	1.43/1.77 (36.3/45.0)	
	1/4" BSPT		APC24004BSPT	APCD24004BSPT	0.72 (18.3)	1.63/1.77 (41.4/45.0)	
	3/8" NPT		APC24006	APCD24006	0.72 (18.3)	1.50/1.64 (38.1/41.7)	
	3/8" BSPT		APC24006BSPT	APCD24006BSPT	0.72 (18.3)	1.51/1.65 (38.4/41.9)	
 <b>IN-LINE FERRULELESS POLYTUBE FITTING, PTF†</b>	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	APC20004	APCD20004	0.72 (18.3)	1.86/1.99 (47.2/50.6)	
		8.0mm OD, 6.0mm ID	APC200M8	APCD200M8	0.72 (18.3)	1.79/1.93 (45.5/49.0)	
	3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID	APC20006	APCD20006	0.72 (18.3)	1.78/1.91 (45.2/48.5)	
		10.0mm OD, 8.0mm ID	APC200M10	APCD200M10	0.72 (18.3)	1.79/1.93 (45.5/49.0)	
 <b>IN-LINE HOSE BARB</b>	1/4" ID	6.4mm ID	APC22004	APCD22004	0.60/0.72 (15.2/18.3)	1.40/2.10 (35.6/53.3)	
	3/8" ID	9.5mm ID	APC22006	APCD22006	0.63/0.72 (16.0/18.3)	1.40/1.92 (35.6/48.8)	
 <b>ELBOW FERRULELESS POLYTUBE FITTING, PTF†</b>	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	APC21004	APCD21004	1.22 (31.0)	1.32/1.45 (33.5/36.8)	0.91 (23.1)
	3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID	APC21006	APCD21006	1.27 (32.3)	1.33/1.46 (33.8/37.1)	0.96 (24.4)
 <b>ELBOW HOSE BARB</b>	1/4" ID	6.4mm ID	APC23004	APCD23004	0.63 (16.0)	1.20/1.45 (30.5/36.8)	0.96 (24.4)
	3/8" ID	9.5mm ID	APC23006	APCD23006	0.63 (16.0)	1.20/1.5 (30.5/38.1)	0.96 (24.4)

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.

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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