

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

FEATURES

Plastic thumb latch



Shrouded thumb latch



Integral terminations



Compatibility



BENEFITS

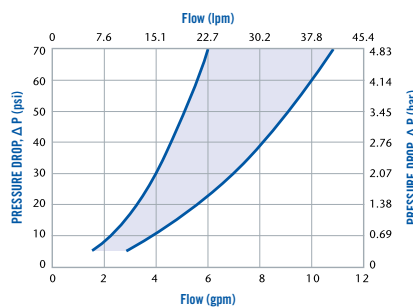
No exposed metal parts

Protects against accidental disconnects

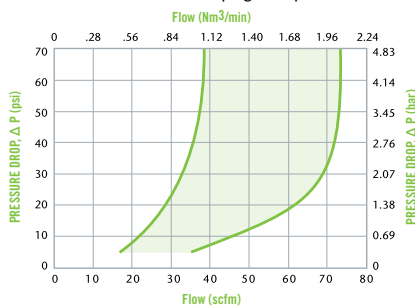
Fewer leak points, shorter assemblies, faster installations

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.



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_v = Average coefficient across various flow rates (see chart)
- ΔP = Pressure drop across coupling (psi)
- S = Specific gravity of liquid







C_v 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 |
|---------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| BODIES | | | | | | | | | | | | |
| 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

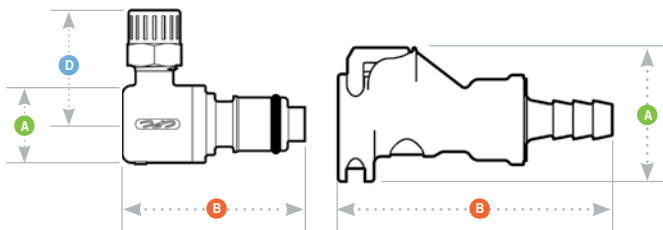
| TERMINATION | TUBING/THREAD SIZE | METRIC EQ | STRAIGHT THRU | SHUTOFF | A | B |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|---------------|---------------|-------------|-------------|
|  IN-LINE PIPE THREAD | 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) |
|  IN-LINE HOSE BARB | 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) |
|  IN-LINE WITH SHROUD FERRULELESS POLYTUBE FITTING, PTF† | 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) |
|  IN-LINE HOSE BARB | 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) |
| | | 10.0mm OD, 8.0mm ID | APC130M10SH | | 1.3 (33.0) | 2.07 (52.6) |
|  PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF† | 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) |
|  PANEL MOUNT HOSE BARB | 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) |

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. |
|------------------------------------------------------------------------------------|----------|----------|
| PANEL MOUNT GASKET REPLACEMENT: For sealing panel mount bodies listed above | Buna-N | 1830300 |

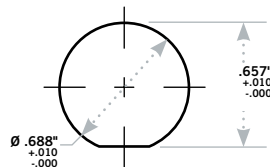
PRODUCT DIMENSIONS








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

PANEL DIMENSIONS

| | PANEL OPENING | PANEL THICKNESS MAX.-MIN. | PANEL NUT HEX | PANEL NUT THREAD |
|------------------------|---------------|---------------------------|---------------|------------------|
| COUPLING BODIES | see drawing | .05-.02 | 13/16 | 11/16-24UNF |



COUPLING INSERTS - Acetal

| TERMINATION | TUBING/THREAD SIZE | METRIC EQ | STRAIGHT THRU | SHUTOFF | A | B | D |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|---------------|---------------|-----------------------|-----------------------|-------------|
|  IN-LINE PIPE THREAD | 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) | |
|  IN-LINE FERRULELESS POLYTUBE FITTING, PTF† | 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) | |
|  IN-LINE HOSE BARB | 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) | |
|  ELBOW FERRULELESS POLYTUBE FITTING, PTF† | 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) |
|  ELBOW HOSE BARB | 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.