

## APC SERIES CONNECTOR



### 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 springs:** 316 stainless steel

**External springs and pin:** Stainless steel

**O-rings:** Buna-N

**COLOR:** Natural white with light gray latch

#### 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.

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.

### FEATURES

Plastic thumb latch

Shrouded thumb latch

Integral terminations

Compatibility

### BENEFITS

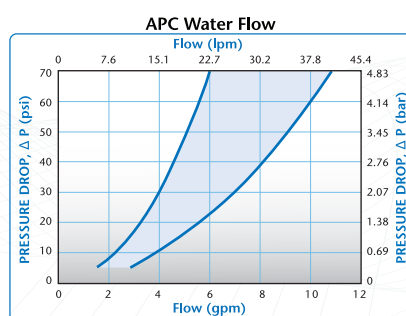
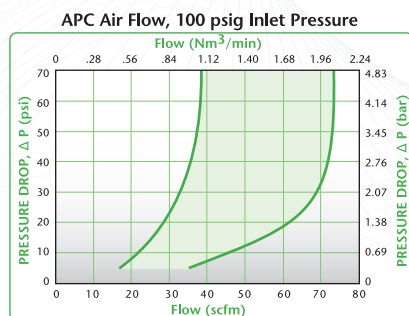
No exposed metal parts

Protects against accidental disconnects

Fewer leak points, shorter assemblies, faster installations

Mates with most EFC couplings

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.

## 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.

## 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)

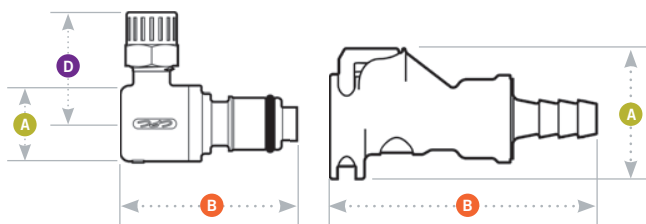
S = Specific gravity of liquid

### C<sub>v</sub> VALUES FOR APC COUPLINGS

BODIES	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
	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

### NOTES:

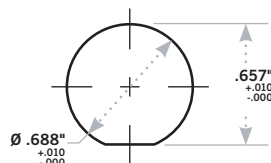
## APC DIMENSIONS



- 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 Bodies • ACETAL



#### TERMINATION IN-LINE PIPE THREAD

#### IN-LINE HOSE BARB

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

#### IN-LINE HOSE BARB

#### PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†

#### PANEL MOUNT HOSE BARB

#### TUBING/THREAD SIZE METRIC EQ.

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

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

1/4" OD, .17" ID 6.4mm OD, 4.3mm ID  
8.0mm OD, 6.0mm ID  
3/8" OD, .25" ID 9.5mm OD, 6.4mm ID  
10.0mm OD, 8.0mm ID

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

1/4" OD, .17" ID 6.4mm OD, 4.3mm ID  
8.0mm OD, 6.0mm ID  
3/8" OD, .25" ID 9.5mm OD, 6.4mm ID  
10.0mm OD, 8.0mm ID

1/4" ID 6.4mm ID  
5/16" ID 7.9mm ID  
3/8" ID 9.5mm ID

#### STRAIGHT THRU

APC10004  
APC10004BSPT  
APC10006  
APC10006BSPT

APC17004  
APC17006

APC13004SH  
APC130M8SH  
APC13006SH  
APC130M10SH

APC17004SH  
APC17006SH

APC12004  
APC120M8  
APC12006  
APC120M10

APC16004  
APC16005  
APC16006

#### SHUTOFF

APCD10004  
APCD10004BSPT  
APCD10006  
APCD10006BSPT

APCD17004  
APCD17006

APCD13004SH  
APCD130M8SH  
APCD13006SH  
APCD130M10SH

APCD17004SH  
APCD17006SH

APCD12004  
APCD120M8  
APCD12006  
APCD120M10

APCD16004  
APCD16005  
APCD16006

#### A

.93  
.93  
.93  
.93

.93  
.93

1.30  
1.30  
1.30  
1.30

1.30  
1.30

1.03  
1.03  
1.03  
1.03

1.03  
1.03  
1.03

#### B

1.40  
1.40  
1.40  
1.40

1.35  
1.35

1.94  
2.07  
2.07  
2.07

2.07  
2.07

1.97  
2.10  
2.10  
2.10

2.10  
2.10  
2.10

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

**PANEL MOUNT GASKET REPLACEMENT:** For sealing panel mount bodies listed above

#### MATERIAL

Buna-N

#### PART NO.

1830300

## Coupling Inserts • ACETAL



### TERMINATION IN-LINE PIPE THREAD

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

### IN-LINE HOSE BARB

### ELBOW FERRULELESS POLYTUBE FITTING, PTF†

### ELBOW HOSE BARB

TUBING/THREAD SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	D
1/4" NPT		APC24004	APCD24004	.72	1.43/1.77	
1/4" BSPT		APC24004BSPT	APCD24004BSPT	.72	1.63/1.77	
3/8" NPT		APC24006	APCD24006	.72	1.50/1.64	
3/8" BSPT		APC24006BSPT	APCD24006BSPT	.72	1.51/1.65	
1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	APC20004	APCD20004	.72	1.86/1.99	
	8.0mm OD, 6.0mm ID	APC200M8	APCD200M8	.72	1.79/1.93	
3/8" OD, .25" ID	9.5mm OD, 6.4mm ID	APC20006	APCD20006	.72	1.78/1.91	
	10.0mm OD, 8.0mm ID	APC200M10	APCD200M10	.72	1.79/1.93	
1/4" ID	6.4mm ID	APC22004	APCD22004	.60/.72	1.40/2.10	
3/8" ID	9.5mm ID	APC22006	APCD22006	.63/.72	1.40/1.92	
1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	APC21004	APCD21004	1.22	1.32/1.45	.91
3/8" OD, .25" ID	9.5mm OD, 6.4mm ID	APC21006	APCD21006	1.27	1.33/1.46	.96
1/4" ID	6.4mm ID	APC23004	APCD23004	.63	1.20/1.45	.96
3/8" ID	9.5mm ID	APC23006	APCD23006	.63	1.20/1.50	.96

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.

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