

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

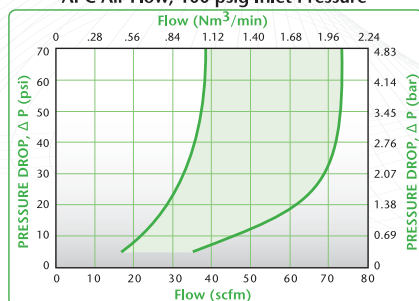
Fewer leak points, shorter assemblies, faster installations

Mates with most EFC couplings

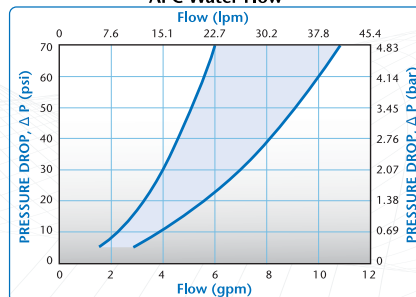
Also available in NSF listed versions, please visit our website for part number information.



APC Air Flow, 100 psig Inlet Pressure



APC Water Flow



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_v = Average coefficient across various flow rates (see chart)

ΔP = Pressure drop across coupling (psi)

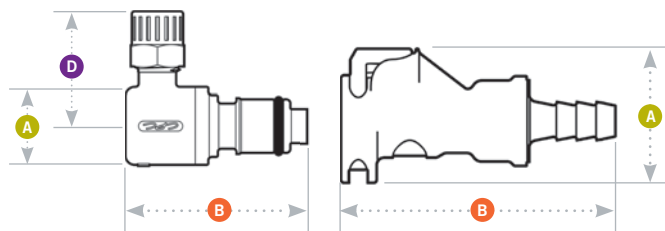
S = Specific gravity of liquid

C_v 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:

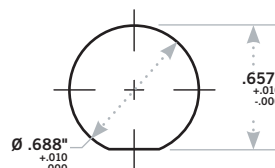
APC DIMENSIONS



- 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

6.4mm ID
9.5mm ID

STRAIGHT THRU

APC10004
APC10004BSPT
APC10006
APC10006BSPT

SHUTOFF

APCD10004
APCD10004BSPT
APCD10006
APCD10006BSPT

A .93
B 1.40
1.40
1.40
1.40

1/4" ID
3/8" ID

6.4mm ID
9.5mm ID

APC17004
APC17006

.93
.93

1.35
1.35

1/4" OD, .17" ID
3/8" OD, .25" ID

6.4mm OD, 4.3mm ID
8.0mm OD, 6.0mm ID
9.5mm OD, 6.4mm ID
10.0mm OD, 8.0mm ID

APC13004SH
APC130M8SH
APC13006SH
APC130M10SH

APCD13004SH
APCD130M8SH
APCD13006SH
APCD130M10SH

1.30
1.30
1.30
1.30

1.94
2.07
2.07
2.07

1/4" ID
3/8" ID

6.4mm ID
9.5mm ID

APC17004SH
APC17006SH

APCD17004SH
APCD17006SH

1.30
1.30

2.07
2.07

1/4" OD, .17" ID
3/8" OD, .25" ID

6.4mm OD, 4.3mm ID
8.0mm OD, 6.0mm ID
9.5mm OD, 6.4mm ID
10.0mm OD, 8.0mm ID

APC12004
APC120M8
APC12006
APC120M10

APCD12004
APCD120M8
APCD12006
APCD120M10

1.03
1.03
1.03
1.03

1.97
2.10
2.10
2.10

1/4" ID
5/16" ID
3/8" ID

6.4mm ID
7.9mm ID
9.5mm ID

APC16004
APC16005
APC16006

APCD16004
APCD16005
APCD16006

1.03
1.03
1.03

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.

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