

SMC SERIES CONNECTOR



The **SMC** and **SMF1** are among CPC's smallest couplings. These twist-to-connect couplings provide a reliable and more secure alternative to luer-type connections. They also allow for the tubing to rotate freely when connected. This important feature prevents both kinked tubing and accidental disconnection during use.

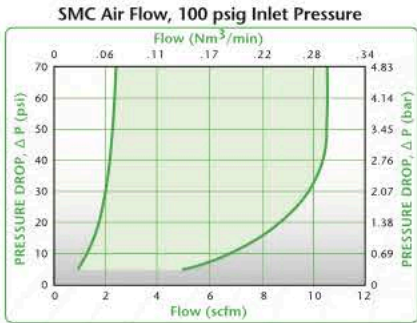
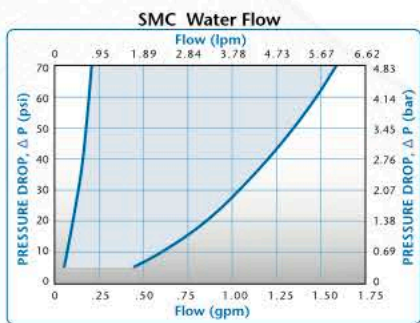
The SMC Series is also available with optional RFID (Radio Frequency Identification) capability (page 98) and in polycarbonate material (page 102).

FEATURES

- Twist to connect
- Free coupling rotation
- Quarter turn latch clicks when connected

BENEFITS

- Prevents accidental disconnects
- Eliminates kinked tubing
- Prevents damage due to over torquing



Specifications ● ● ●

**PRESSURE:**  
Vacuum to 100 psi, 6.9 bar

**TEMPERATURE:**  
**Acetal, Chrome-Plated Brass:**  
-40°F to 180°F (-40°C to 82°C)  
**Polypropylene:**  
32°F to 180°F (0°C to 82°C)  
**ABS:**  
-40°F to 160°F (-40°C to 71°C)

**MATERIALS:**  
**Main Components:** ABS, acetal, polypropylene, chrome-plated brass, stainless steel  
**Locking sleeves:** Acetal  
**Valves:** Acetal  
**Valve spring:** 316 stainless steel  
**O-rings:** Buna-N with acetal or chrome-plated brass, EPDM with polypropylene

**COLOR:**  
**Main components:** Natural white (acetal and ABS), almond (polypropylene), chrome and black

**TUBING SIZES:**  
1/16" to 1/8" ID, 1.6mm to 3.2mm and 5.0mm

**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.

Polycarbonate SMC products manufactured in CPC's cleanroom also available. See page 102.

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 below.

C<sub>v</sub> VALUES FOR SUBMINIATURE COUPLINGS

BODIES	INSERTS	SMM01	SMM02
SMF01		.03	.03
SMFD01		.03	.03
SMF02		.03	.19
SMFD02		.03	.08
SMPT02		.03	.19
SMFD02		.03	.08

$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

**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

NOTES:

