

# MPC™ SERIES CONNECTOR

*The MPC™ series couplings* add ease of use and security to critical fluid handling applications. Choose from a full line of connectors and configurations, including pressure sealing caps and plugs, in sizes to fit 1/8" to 3/8" tubing. MPC couplings offer optional locking sleeves to further guard against accidental disconnects. In addition, coupling halves can be rotated when connected to reduce tube kinks.

## SPECIFICATIONS

### OPERATING PRESSURE:

Vacuum to 60 psi, 4.1 bar

### OPERATING TEMPERATURE:

#### ABS:

-40°F to 160°F (-40°C to 71°C)

#### Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

#### Polysulfone:

-40°F to 300°F (-40°C to 149°C)

### MATERIALS:

#### Main components:

ABS (white), USP Class VI, Polycarbonate (purple tint), USP Class VI, ADCF Polysulfone (amber tint), USP Class VI, ADCF

#### Locking sleeves:

Polysulfone (white), USP Class VI, ADCF

#### Thumb Latches:

Polycarbonate (white), USP Class VI, ADCF Polysulfone (amber tint), USP Class VI, ADCF

**O-rings:** Silicone (clear), platinum-cured, USP Class VI, ADCF and Buna-N (black), USP Class V

### STERILIZATION:

**Gamma:** Up to 50 kGy irradiation

#### Autoclave:

**Polycarbonate:** Up to 250°F (121°C), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

**Polysulfone:** Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

### TUBING SIZES:

1/8" to 3/8" ID (3.2mm to 9.5mm)

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.



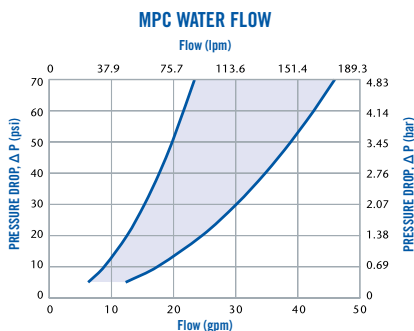
### FEATURES

- Ergonomic thumb latch → Easy to operate – even with gloved hands
- USP Class VI materials → Meet biocompatibility requirements
- Sterilizable by autoclave, EtO, e-beam, or gamma → Reusable, yet economical enough to allow disposability
- Parting line-free hose barb → Eliminates potential leak path
- ADCF-free materials → Meet BSE/TSE requirements

### BENEFITS

## NOTE

MPC Series mates with Back-to-Back Adapters, SaniQuik™ and Sanitary Series.








*This graph is intended to give you a general idea of the performance capabilities of each product line. The shaded area of the 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.*








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

# MPC™ SERIES DIMENSIONS

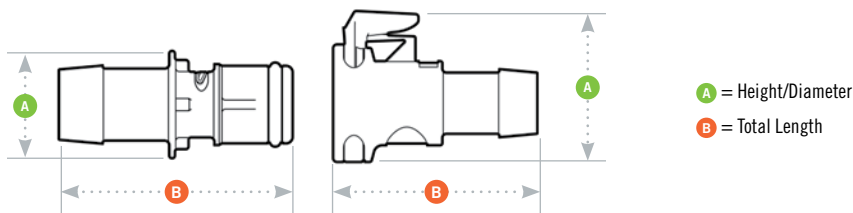
## COUPLING BODIES - ABS / Polycarbonate / Polysulfone

TERMINATION	TUBING SIZE	METRIC EQ	FLOW	STRAIGHT THRU	O-RINGS	A	B
 ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC17004T		0.96 (24.4)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC17006T		0.96 (24.4)	1.3 (33.0)
 POLYCARBONATE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC17002T03		0.96 (24.4)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC17004T03		0.96 (24.4)	1.1 (27.9)
	3/8" ID	9.5mm ID	0.29"	MPC17006T03		0.96 (24.4)	1.1 (27.9)
 POLYCARBONATE IN-LINE HOSE BARB WITH LOCK	1/8" ID	3.2mm ID	0.09"	MPCK17002T03		0.99 (25.1)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPCK17004T03		0.99 (25.1)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPCK17006T03		0.99 (25.1)	1.3 (33.0)
 POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC17002T39		0.96 (24.4)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC17004T39		0.96 (24.4)	1.1 (27.9)
	3/8" ID	9.5mm ID	0.29"	MPC17006T39		0.96 (24.4)	1.1 (27.9)
 POLYSULFONE IN-LINE HOSE BARB WITH LOCK	1/8" ID	3.2mm ID	0.09"	MPCK17002T39		0.99 (25.1)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPCK17004T39		0.99 (25.1)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPCK17006T39		0.99 (25.1)	1.3 (33.0)

## COUPLING INSERTS - ABS / Polycarbonate / Polysulfone

TERMINATION	TUBING SIZE	METRIC EQ	FLOW	STRAIGHT THRU	O-RINGS	A	B
 ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC22004TM	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006TM	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
 ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC22004T	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006T	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
 POLYCARBONATE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC22004T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
 POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T03	Buna-N Seal USP Class V	0.6 (15.2)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC22004T03	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006T03	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
 POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC22004T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)

## PRODUCT DIMENSIONS



# MPC™ SERIES CONNECTOR (CONT.)

## ADAPTORS



SEALING CAP	W/LOCK	MATERIAL	A	B
MPC32003	MPCK32003	Polycarbonate	0.96 (24.4 mm)	1.3 (33.0 mm)
MPC32039	MPCK32039	Polysulfone	0.99 (25.1 mm)	1.3 (33.0 mm)

SEALING PLUG	O-RING	MATERIAL	A	B
MPC30003M	Silicone Seal USP Class VI	Polycarbonate	0.75 (19.1 mm)	1.24 (31.5 mm)
MPC30039M	Silicone Seal USP Class VI	Polysulfone	0.75 (19.1 mm)	1.24 (31.5 mm)

PART NO.	DESCRIPTION	MATERIAL
MPC30L	Leash plug for MPC body	Soft, flexible, medical-grade PVC
MPC32L	Leash plug for MPC insert	Soft, flexible, medical-grade PVC

## 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

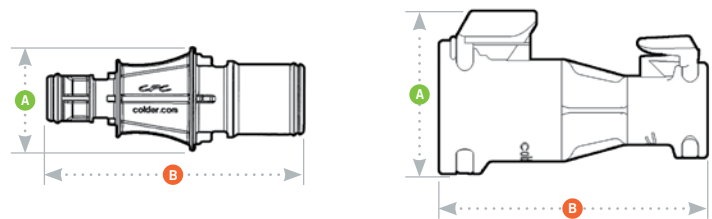
#### INSERTS

	MPC22002T03	MPC22004T03	MPC22006T03
<b>BODIES</b>			
MPC17002T03	0.11	-	0.21
MPC17004T03	-	2.8	2.8
MPC17006T03	0.14	2.8	5.5

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

- 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

## BACK-TO-BACK PRODUCT DIMENSIONS



A = Height/Diameter      B = Total Length