

MPC SERIES CONNECTOR

Specifications ● ● ●

PRESSURE:

Vacuum to 60 psi, 4.1 bar

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.

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.

FEATURES

Ergonomic thumb latch

USP Class VI materials

Sterilizable by autoclave, EtO, e-beam, or gamma

Parting line-free hose barb

ADCF-free materials

BENEFITS

Easy to operate – even with gloved hands

Meet biocompatibility requirements

Reusable, yet economical enough to allow disposability

Eliminates potential leak path

Meet BSE/TSE requirements

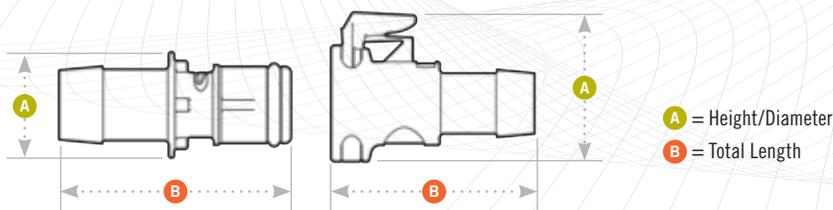
TUBING SIZES:

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

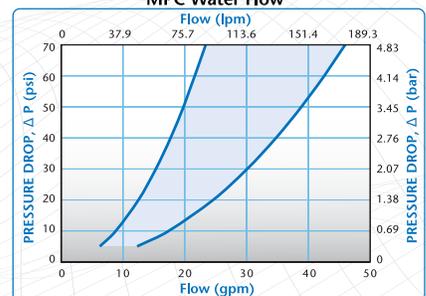
WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.

⚠ 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.

Product Dimensions



MPC Water Flow



MPC SERIES CONNECTOR DIMENSIONS

Coupling Bodies

A = Height/Diameter

B = Total Length

• ABS



TERMINATION
IN-LINE
HOSE BARB

TUBING
1/4" ID
3/8" ID

METRIC EQ.
6.4mm ID
9.5mm ID

FLOW
.21"
.29"

STRAIGHT THRU
MPC17004T
MPC17006T

A
.96 (24.4)
.96 (24.4)

B
1.30 (33.0)
1.30 (33.0)

• POLYCARBONATE



TERMINATION
IN-LINE
HOSE BARB

TUBING
1/8" ID
1/4" ID
3/8" ID

METRIC EQ.
3.2mm ID
6.4mm ID
9.5mm ID

FLOW
.09"
.21"
.29"

STRAIGHT THRU
MPC17002T03
MPC17004T03
MPC17006T03

A
.96 (24.4)
.96 (24.4)
.96 (24.4)

B
1.10 (27.9)
1.10 (27.9)
1.10 (27.9)



IN-LINE HOSE BARB
WITH LOCK

1/8" ID
1/4" ID
3/8" ID

3.2mm ID
6.4mm ID
9.5mm ID

.09"
.21"
.29"

MPCK17002T03
MPCK17004T03
MPCK17006T03

.99 (25.2)
.99 (25.2)
.99 (25.2)

1.10 (27.9)
1.30 (33.0)
1.30 (33.0)

• POLYSULFONE



TERMINATION
IN-LINE
HOSE BARB

TUBING
1/8" ID
1/4" ID
3/8" ID

METRIC EQ.
3.2mm ID
6.4mm ID
9.5mm ID

FLOW
.09"
.21"
.29"

STRAIGHT THRU
MPC17002T39
MPC17004T39
MPC17006T39

A
.96 (24.4)
.96 (24.4)
.96 (24.4)

B
1.10 (27.9)
1.10 (27.9)
1.10 (27.9)



IN-LINE HOSE BARB
WITH LOCK

1/8" ID
1/4" ID
3/8" ID

3.2mm ID
6.4mm ID
9.5mm ID

.09"
.21"
.29"

MPCK17002T39
MPCK17004T39
MPCK17006T39

.99 (25.2)
.99 (25.2)
.99 (25.2)

1.10 (27.9)
1.30 (33.0)
1.30 (33.0)

Coupling Inserts

• ABS



TERMINATION
IN-LINE
HOSE BARB

TUBING
1/4" ID
3/8" ID

METRIC EQ.
6.4mm ID
9.5mm ID

FLOW
.21"
.29"

STRAIGHT THRU
MPC22004TM
MPC22006TM

O-RING

Silicone Seal USP Class VI
Silicone Seal USP Class VI

A
.60 (15.2)
.60 (15.2)

B
1.30 (33.0)
1.30 (33.0)



IN-LINE
HOSE BARB

1/4" ID
3/8" ID

6.4mm ID
9.5mm ID

.21"
.29"

MPC22004T
MPC22006T

Buna-N Seal USP Class V
Buna-N Seal USP Class V

.60 (15.2)
.60 (15.2)

1.30 (33.0)
1.30 (33.0)

• POLYCARBONATE



TERMINATION
IN-LINE
HOSE BARB

TUBING
1/8" ID
1/4" ID
3/8" ID

METRIC EQ.
3.2mm ID
6.4mm ID
9.5mm ID

FLOW
.09"
.21"
.29"

STRAIGHT THRU
MPC22002T03M
MPC22004T03M
MPC22006T03M

O-RING

Silicone Seal USP Class VI
Silicone Seal USP Class VI
Silicone Seal USP Class VI

A
.60 (15.2)
.60 (15.2)
.60 (15.2)

B
1.10 (27.9)
1.30 (33.0)
1.30 (33.0)



IN-LINE
HOSE BARB

1/8" ID
1/4" ID
3/8" ID

3.2mm ID
6.4mm ID
9.5mm ID

.09"
.21"
.29"

MPC22002T03
MPC22004T03
MPC22006T03

Buna-N Seal USP Class V
Buna-N Seal USP Class V
Buna-N Seal USP Class V

.60 (15.2)
.60 (15.2)
.60 (15.2)

1.10 (27.9)
1.30 (33.0)
1.30 (33.0)

• POLYSULFONE



TERMINATION
IN-LINE
HOSE BARB

TUBING
1/8" ID
1/4" ID
3/8" ID

METRIC EQ.
3.2mm ID
6.4mm ID
9.5mm ID

FLOW
.09"
.21"
.29"

STRAIGHT THRU
MPC22002T39M
MPC22004T39M
MPC22006T39M

O-RING

Silicone Seal USP Class VI
Silicone Seal USP Class VI
Silicone Seal USP Class VI

A
.60 (15.2)
.60 (15.2)
.60 (15.2)

B
1.10 (27.9)
1.30 (33.0)
1.30 (33.0)

MPC SERIES CONNECTOR (cont.)

Mating Parts



SEALING CAP
MPC32003
MPC32039

SEALING CAP W/LOCK
MPCK32003
MPCK32039

MATERIAL
Polycarbonate
Polysulfone

A
.96 (24.4)
.99 (25.2)

B
1.30 (33.0)
1.30 (33.0)

SEALING PLUG
MPC30003M
MPC30039M

O-RING
Silicone Seal USP Class VI
Silicone Seal USP Class VI

MATERIAL
Polycarbonate
Polysulfone

A
.75 (19.1)
.75 (19.1)

B
1.24 (31.5)
1.24 (31.5)

PART NO.
MPC30L
MPC32L

DESCRIPTION
Leash plug for MPC body
Leash cap for MPC insert

MATERIALS
Soft, flexible, medical-grade PVC
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 at the right.

C_v VALUES FOR MPC SERIES COUPLINGS

BODIES	INSERTS	MPC22002T03	MPC22004T03	MPC22006T03
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_v = Average coefficient across various flow rates (see chart)

ΔP = Pressure drop across coupling (psi)

S = Specific gravity of liquid

Note:
MPC Series mates with Back-to-Back Adapters (page 109), SaniQuik™ and Sanitary Series (pages 112-115).



BACK-TO-BACK SERIES CONNECTOR



MPC/MPX Back-to-Back Adapters give end users the flexibility of connecting single-use systems that feature identical coupling connections at the end of their tubing. Combining both MPC and MPX couplings provides a reducing option for users who need to transition between tubing diameters ranging from 1/8" to 1/2".

FEATURES

Compatible with MPC and MPX Series inserts

Tubing reduction option

Ergonomic thumb latches

ADCF-free materials

BENEFITS

Easy conversion to industry standard connections or single-use systems

Allows easy transition between multiple size tubing from 1/8" to 1/2" ID

Easy to operate - even with gloved hands

Meet BSE/TSE requirements

Specifications

PRESSURE:

Vacuum to 60 psi, 4.1 bar

TEMPERATURE:

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:

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

STERILIZATION:

Gamma: Up to 50 kGy irradiation

Autoclave:

Polycarbonate: Up to 250°F (121°C) for 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.

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.

Back-To-Back Insert Adapters

• POLYSULFONE



PART NO.	TYPE	A	B
MPC22C2239M	MPC to MPC	0.74 (18.8)	2.04 (51.0)
MPC22X2239M	MPC to MPX	0.98 (25.0)	2.42 (61.5)
MPX22X2239M	MPX to MPX	0.98 (25.0)	2.73 (69.5)

Note:
Mates with MPC and MPX bodies, inserts and sealing caps and plugs (pages 106-111).

Back-To-Back Body Adapters

• POLYCARBONATE



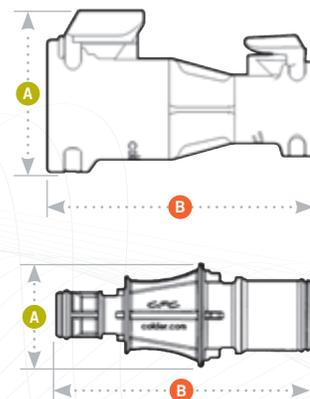
PART NO.	TYPE	A	B
MPC17C1703	MPC to MPC	.96 (24.5)	1.81 (46.0)
MPX17X1703	MPX to MPX	1.28 (32.5)	2.44 (62.0)
MPC17X1703	MPC to MPX	1.28 (32.5)	2.13 (54.1)

• POLYSULFONE



PART NO.	TYPE	A	B
MPC17C1739	MPC to MPC	.96 (24.5)	1.81 (46.0)
MPX17X1739	MPX to MPX	1.28 (32.5)	2.44 (62.0)
MPC17X1739	MPC to MPX	1.28 (32.5)	2.13 (54.1)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.



A = Height/Diameter

B = Total Length

MPX SERIES CONNECTOR



MPX Series couplings add ease of use and security to your most critical fluid handling applications. Choose from a full line of connectors and configurations, including pressure sealing caps and plugs in sizes to fit 3/8" and 1/2" tubing. MPX couplings offer optional locking sleeves to further guard against accidental disconnects. In addition, coupling halves can be rotated when connected reducing tube kinks.

FEATURES

- Ergonomic thumb latch
- USP Class VI materials
- Sterilizable by autoclave, EtO, e-beam, or gamma
- Parting line-free hose barb
- ADCF-free materials

BENEFITS

- Easy to operate – even with gloved hands
- Meet biocompatibility requirements
- Reusable, yet economical enough to allow disposability
- Eliminates potential leak path
- Meet BSE/TSE requirements

Specifications ● ● ●

PRESSURE:

Vacuum to 60 psi, 4.1 bar

TEMPERATURE:

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:

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

STERILIZATION:

Gamma: Up to 50 kGy irradiation

Autoclave:

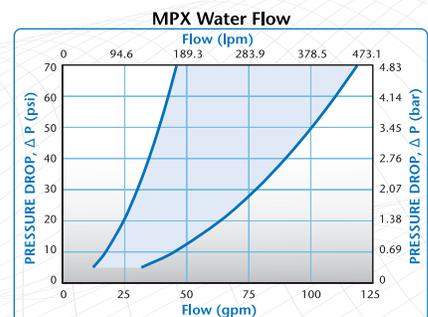
Polycarbonate: Up to 250°F (121°C), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

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

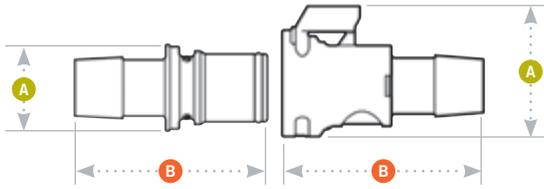
TUBING SIZES: 3/8" to 1/2" ID (9.5mm to 12.7mm)

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.

⚠ 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.



MPX SERIES CONNECTOR DIMENSIONS



A = Height/Diameter
B = Total Length

Coupling Bodies

• POLYCARBONATE

	TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
	IN-LINE HOSE BARB	1/2" ID	12.7mm ID	.50"	MPX17803	1.28 (32.5)	1.96 (49.8)
	IN-LINE HOSE BARB WITH LOCK	1/2" ID	12.7mm ID	.50"	MPXK17803	1.28 (32.5)	1.96 (49.8)

• POLYSULFONE

	TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
	IN-LINE HOSE BARB	1/2" ID	12.7mm ID	.50"	MPX17839	1.28 (32.5)	1.96 (49.8)
	IN-LINE HOSE BARB WITH LOCK	1/2" ID	12.7mm ID	.50"	MPXK17839	1.28 (32.5)	1.96 (49.8)

Coupling Inserts

• POLYCARBONATE

	TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
	IN-LINE HOSE BARB	3/8" ID	9.5mm ID	.38"	MPX22603M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)
		1/2" ID	12.7mm ID	.50"	MPX22803M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)

• POLYSULFONE

	TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
	IN-LINE HOSE BARB	3/8" ID	9.5mm ID	.38"	MPX22639M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)
		1/2" ID	12.7mm ID	.50"	MPX22839M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)

Mating Parts

	SEALING CAP	SEALING CAP W/LOCK	MATERIAL	A	B
	MPX32003	MPXK32003	Polycarbonate	1.28 (32.5)	1.67 (42.4)
	MPX32039	MPXK32039	Polysulfone	1.28 (32.5)	1.67 (42.4)

	SEALING PLUG	O-RING	MATERIAL	A	B
	MPX30003M	Silicone Seal USP Class VI	Polycarbonate	1.10 (27.9)	1.66 (42.2)
	MPX30039M	Silicone Seal USP Class VI	Polysulfone	1.10 (27.9)	1.66 (42.2)

Note: MPX Series mates with Back-to-Back Adapters (page 109), SaniQuik™ and Sanitary Series (pages 112-115).

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.