

# HFC12 SERIES CONNECTOR

**HFC12 Series couplings** have flow comparable to many 1/2" flow couplings in a 3/8" body size. Compact and lightweight, HFC couplings replace bulky and heavy brass ball-and-sleeve couplings in a wide range of applications. An ergonomic design and a large, shrouded thumb latch pad produce a coupling that is easy to grip and simple to operate. An efficient valve design leads to high flow and low spillage.



## SPECIFICATIONS

### PRESSURE:

Vacuum to 60 psi, 4.2 bar

### TEMPERATURE:

32°F to 160°F (0°C to 71°C)

### MATERIALS:

**Main components and valves:** Polypropylene

**Thumb latch:** Polypropylene

**Valve spring (wetted):** 316 stainless steel

**External springs:** 316 stainless steel

**O-rings:** EPDM

**Panel mount gasket:** EPDM

**Compression nut, gripper, ferrule:**  
Polypropylene

**COLOR:** Gray with dark gray latch

### TUBING SIZES:

3/8" to 3/4" ID, 9.5mm to 19.0mm 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. For compression termination specifications: 3/8" OD or 1/2" OD, +0.010/-0.000*



[cpcworldwide.com/HFC12](http://cpcworldwide.com/HFC12)

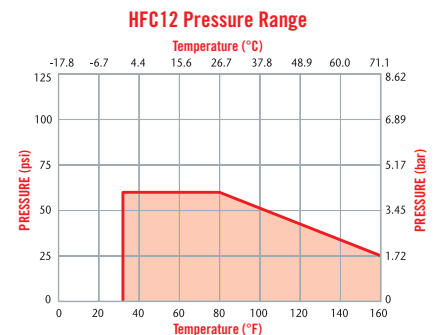
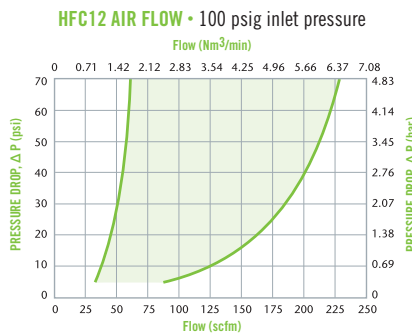
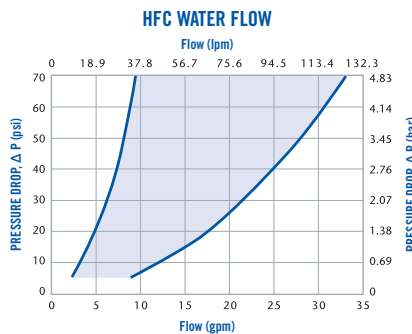
## FEATURES

- High efficiency valve → More flow in a compact size
- Ergonomic design → Easy to grip, simple to operate
- Polypropylene material → Chemically resistant and gamma sterilizable
- Compatible → Mates with HFC35 and HFC57 couplings

## BENEFITS

## NOTE

Optional o-ring and spring materials are available, please contact CPC for details.



*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.*



## NSF OPTION AVAILABLE

This product has an NSF compatible product for food applications. Our food-grade couplings are superior to general fittings for fluid control because they incorporate built-in shutoff valves, enabling tubing to be disconnected without having to turn off the water supply. Scan the QR code to be taken to the NSF specific product web page.



## 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 to 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

### INSERTS

	HFC 22612	HFCD 22612	HFC 22812	HFCD 22812	HFC 23612	HFCD 23612	HFC 23812	HFCD 23812	HFC 24612	HFCD 24612	HFC 24812	HFCD 24812	HFCD 221212	HFC 221212
<b>BODIES</b>														
HFCD10612	1.27	1.27	1.62	1.51	1.14	1.14	1.46	1.36	1.80	1.58	1.70	1.65	-	-
HFCD10812	1.28	1.34	1.62	1.51	1.15	1.24	1.46	1.36	1.81	1.54	1.72	1.56	-	-
HFCD16612	1.07	1.00	1.17	1.14	0.96	0.90	1.05	1.03	1.33	1.26	1.30	1.24	-	-
HFCD16812	1.25	1.23	1.61	1.52	1.13	1.11	1.45	1.37	1.79	1.60	1.68	1.56	-	-
HFCD17612	1.07	1.00	1.17	1.14	0.96	0.90	1.05	1.03	1.33	1.26	1.30	1.24	-	-
HFCD17812	1.25	1.23	1.61	1.52	1.13	1.11	1.45	1.37	1.79	1.60	1.68	1.56	-	-
HFC171212	-	-	-	-	-	-	-	-	-	-	-	-	3.94	-
HFCD171212	-	-	-	-	-	-	-	-	-	-	-	-	-	2.04

# HFC12 SERIES DIMENSIONS

## COUPLING BODIES - Polypropylene

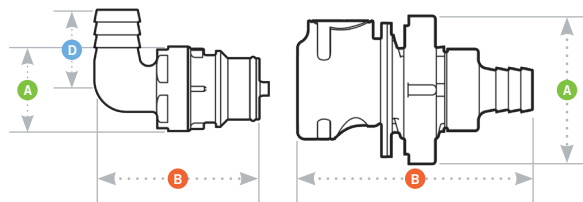
TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
 <b>IN-LINE PIPE THREAD</b>	3/8" NPT		HFC10612	HFCD10612	1.44 (36.6)	2.69 (68.3)
	3/8" BSPT		HFC10612BSPT	HFCD10612BSPT	1.44 (36.6)	2.72 (69.1)
	1/2" NPT		HFC10812	HFCD10812	1.44 (36.6)	2.88 (73.2)
	3/4" NPT		HFC101212	HFCD101212	1.44 (36.6)	3.07 (78.0)
 <b>BULKHEAD PANEL MOUNT HOSE BARB</b>	3/8" ID	9.5mm ID	HFC16612	HFCD16612	1.82 (46.2)	2.82 (71.6)
	1/2" ID	12.7mm ID	HFC16812	HFCD16812	1.82 (46.2)	2.82 (71.6)
	5/8" ID	15.9mm ID	HFC161012	HFCD161012	1.82 (46.2)	2.94 (74.7)
	3/4" ID	19.0mm ID	HFC161212	HFCD161212	1.82 (46.2)	2.94 (74.7)
 <b>BULKHEAD PANEL MOUNT COMPRESSION</b>	3/8" OD	9.5mm OD	HFC12612	HFCD12612	1.82 (46.2)	2.96 (75.2)
	1/2" OD	12.7mm OD	HFC12812	HFCD12812	1.82 (46.2)	3.11 (79.0)
 <b>IN-LINE HOSE BARB</b>	3/8" ID	9.5mm ID	HFC17612	HFCD17612	1.44 (36.6)	2.79 (70.9)
	1/2" ID	12.7mm ID	HFC17812	HFCD17812	1.44 (36.6)	2.79 (70.9)
	5/8" ID	15.9mm ID	HFC171012	HFCD171012	1.44 (36.6)	2.94 (74.7)
	3/4" ID	19.0mm ID	HFC171212	HFCD171212	1.44 (36.6)	2.94 (74.7)
 <b>IN-LINE COMPRESSION</b>	3/8" OD	9.5mm OD		HFCD13612	1.44 (36.6)	2.96 (75.2)
	1/2" OD	12.7mm OD	HFC13812	HFCD13812	1.44 (36.6)	3.11 (79.0)

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

## ACCESSORIES

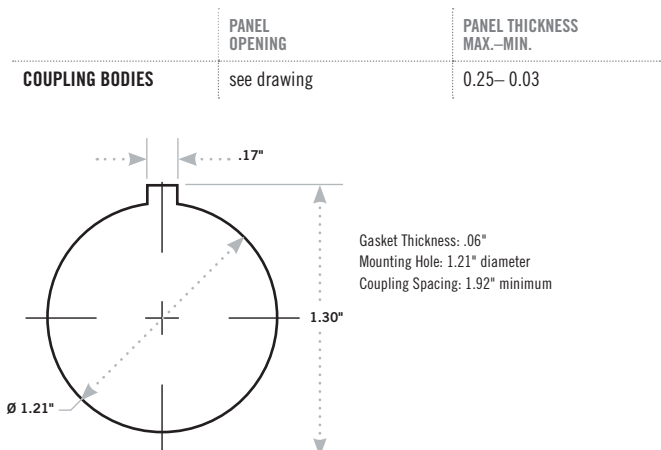
DESCRIPTION	MATERIAL	PART NO.
<b>PANEL MOUNT GASKET REPLACEMENT: FOR SEALING PANEL MOUNT BODIES LISTED ABOVE</b>	EPDM	621200

## PRODUCT DIMENSIONS







- A = Height/Diameter
- B = Total Length
- D = Elbow Radial Length

## PANEL DIMENSIONS



## COUPLING INSERTS - Polypropylene

TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B	D
 <b>IN-LINE PIPE THREAD</b>	3/8" NPT		HFC24612	HFCD24612	1.16 (29.5)	1.77/1.89 (45.0/48.0)	
	3/8" BSPT		HFC24612BSPT	HFCD24612BSPT	1.16 (29.5)	1.80/1.92 (45.7/48.8)	
	1/2" NPT		HFC24812	HFCD24812	1.16 (29.5)	1.95/2.07 (49.5/52.6)	
	3/4" NPT		HFC241212	HFCD241212	1.23 (31.2)	2.14/2.26 (54.4/57.4)	
 <b>IN-LINE HOSE BARB (NON-VALVED SHOWN)</b>	3/8" ID	9.5mm ID	HFC22612	HFCD22612	1 (25.4)	1.97/2.09 (50.0/53.1)	
	1/2" ID	12.7mm ID	HFC22812	HFCD22812	1 (25.4)	1.97/2.09 (50.0/53.1)	
	5/8" ID	15.9mm ID	HFC221012	HFCD221012	1 (25.4)	2.01/2.13 (51.1/54.1)	
	3/4" ID	19.0mm ID	HFC221212	HFCD221212	1 (25.4)	2.14/2.26 (54.4/57.4)	
 <b>IN-LINE COMPRESSION (NON-VALVED SHOWN)</b>	3/8" OD	9.5mm OD	HFC20612	HFCD20612	1 (25.4)	2.14/2.26 (54.4/57.4)	
	1/2" OD	12.7mm OD	HFC20812	HFCD20812	1 (25.4)	2.29/2.41 (58.2/61.2)	
 <b>ELBOW HOSE BARB (NON-VALVED SHOWN)</b>	3/8" ID	9.5mm ID	HFC23612	HFCD23612	1 (25.4)	1.93/2.05 (49.0/52.1)	0.93 (23.6)
	1/2" ID	12.7mm ID	HFC23812	HFCD23812	1 (25.4)	1.97/2.09 (50.0/53.1)	0.93 (23.6)
	3/4" ID	19.0mm ID	HFC231212	HFCD231212	1 (25.4)	1.95/2.07 (49.5/52.6)	0.93 (23.6)

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.

## DID YOU KNOW

When selecting a valved coupling for your application, make sure to order a part number with a D just before the numeric portion of the part number. For example, HFC101212 does not have a shutoff valve; HFCD101212 would be the correct part number to order for a valved coupling.

To visually identify a part to determine whether or not it is valved, disconnect the coupling body and insert, and then look through the part. If you can see light all the way through, your part is non-valved. If there is anything obstructing the light, you probably have a valved part. Please contact Customer Service at 1-800-444-2474 or 651-645-0091 if you need further assistance.

# HFC35 & 57 SERIES CONNECTORS

**HFC35 Series polysulfone couplings** are able to withstand demanding applications and feature physical strength, chemical resistance and autoclavability.

**HFC57 Series polysulfone couplings** are UV resistant and able to withstand continued exposure to harmful UV rays without affecting performance.

Both can operate in harsh environments in temperatures from -40°F to 280°F (-40°C to 138°C) and pressures from vacuum to 125 psi (8.6 bar). An ergonomic design and a large, shrouded thumb latch produce a coupling that is easy to grip and simple to operate. An efficient valve design leads to high flow and exceptionally low spillage. Both series also add bulkhead panel mount, garden hose thread and Hastelloy® C spring options.



## SPECIFICATIONS

### PRESSURE:

Vacuum to 125 psi, 8.6 bar

### TEMPERATURE:

-40°F to 280°F (-40°C to 138°C)

### MATERIALS:

#### Main components and valves:

HFC35 - Polysulfone

HFC57 - UV-resistant polysulfone

#### THUMB LATCH:

HFC35 - Polysulfone

HFC57 - UV-resistant polysulfone

**Valve spring:** 316 stainless steel

**External springs:** 316 stainless steel

**O-rings:** EPDM

**Panel mount gasket:** EPDM

**Female GHT gasket:** FDA EPDM

### COLORS:

HCF35 - Natural white, dark gray latch

HCF57 - Black, black latch

### TUBING SIZES:

3/8" to 3/4" ID, 9.5mm to 19.0mm 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 products in their own application conditions. Use the graphs on the following page as a guide. For compression termination specifications: 3/8" OD or 1/2" OD, +0.010/-0.000

### FEATURES

Polysulfone (HFC35)



### BENEFITS

Physically strong and autoclavable

UV Polysulfone (HFC57)



Physically strong and UV resistant

High efficiency valve



More flow and less spillage in a compact size

Ergonomic design



Easy to grip, simple to operate

Compatible



Mates with HFC12 couplings

## DID YOU KNOW

**The HFC57 Series polysulfone couplings are UV-resistant and able to withstand continued exposure to harmful rays without affecting performance.**

These couplings offer all the same features as our HFC12 and HFC35 Series with the added advantage of UV-resistance to protect the strength and durability of your fluid connections. Use the HFC57 couplings in outdoor applications such as watercraft, lawn irrigation systems and solar heating on roofs and decks where a connector is subjected to the harsh rays of the sun.



[cpcworldwide.com/HFC35-57](http://cpcworldwide.com/HFC35-57)



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

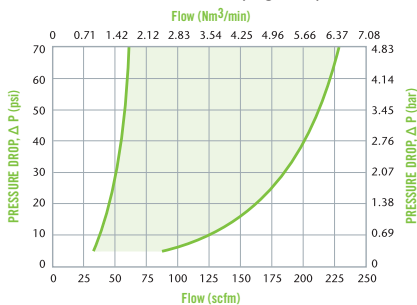


## NSF OPTION AVAILABLE

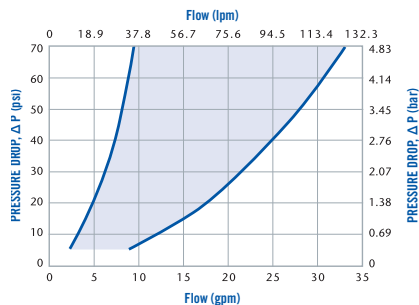
This product has an NSF compatible product for food applications. Our food-grade couplings are superior to general fittings for fluid control because they incorporate built-in shutoff valves, enabling tubing to be disconnected without having to turn off the water supply. Scan the QR code to be taken to the NSF specific product web page.



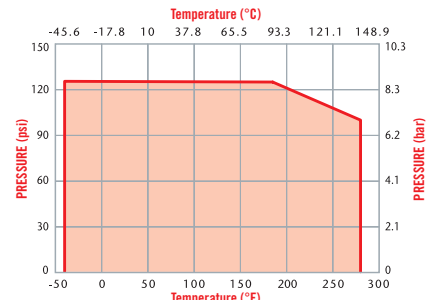
HFC35/57 AIR FLOW • 100 psig inlet pressure



HFC 35/57 WATER FLOW







HFC35/37 Pressure Range







*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.*

# HFC35 SERIES DIMENSIONS

## COUPLING BODIES - Polysulfone

TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
 <b>IN-LINE PIPE THREAD</b>	3/8" NPT		HFC10635	HFCD10635	1.44 (36.6)	2.73 (69.3)
	3/8" BSPT		HFC10635BSPT	HFCD10635BSPT	1.44 (36.6)	2.73 (69.3)
	1/2" NPT		HFC10835	HFCD10835	1.44 (36.6)	2.88 (73.2)
	1/2" BSPT		HFC10835BSPT	HFCD10835BSPT	1.44 (36.6)	2.88 (73.2)
	3/4" NPT		HFC101235	HFCD101235	1.44 (36.6)	3.12 (79.2)
	3/4" BSPT		HFC101235BSPT	HFCD101235BSPT	1.44 (36.6)	3.12 (79.2)
 <b>IN-LINE PIPE THREAD (FEMALE)</b>	3/4" GHT		HFC191235GHT	HFCD191235GHT	1.44 (36.6)	2.70 (68.6)
	3/4" BSPP		HFC191235BSPP	HFCD191235BSPP	1.44 (36.6)	2.70 (68.6)
 <b>BULKHEAD PANEL MOUNT HOSE BARB</b>	3/8" ID	9.5mm ID	HFC16635	HFCD16635	1.44 (36.6)	2.82 (71.6)
	1/2" ID	12.7mm ID	HFC16835	HFCD16835	1.44 (36.6)	2.82 (71.6)
	5/8" ID	15.9mm ID	HFC161035	HFCD161035	1.44 (36.6)	2.94 (74.7)
	3/4" ID	19.0mm ID		HFCD161235	1.44 (36.6)	2.94 (74.7)
 <b>IN-LINE HOSE BARB</b>	3/8" ID	9.5mm ID	HFC17635	HFCD17635	1.44 (36.6)	2.82 (71.6)
	1/2" ID	12.7mm ID	HFC17835	HFCD17835	1.44 (36.6)	2.82 (71.6)
	5/8" ID	15.9mm ID	HFC171035	HFCD171035	1.44 (36.6)	2.94 (74.7)
	3/4" ID	19.0mm ID	HFC171235	HFCD171235	1.44 (36.6)	2.94 (74.7)

## COUPLING INSERTS - Polysulfone

TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B	D
 <b>IN-LINE PIPE THREAD (NON-VALVED SHOWN)</b>	3/8" NPT		HFC24635	HFCD24635	1.16 (29.5)	1.82/1.94 (46.2/49.3)	
	3/8" BSPT		HFC24635BSPT	HFCD24635BSPT	1.16 (29.5)	1.97/2.09 (50.0/53.1)	
	1/2" NPT		HFC24835	HFCD24835	1.16 (29.5)	1.97/2.09 (50.0/53.1)	
	1/2" BSPT		HFC24835BSPT	HFCD24835BSPT	1.16 (29.5)	1.17/2.09 (29.7/53.1)	
	3/4" NPT		HFC241235	HFCD241235	1.23 (31.2)	2.22/2.34 (56.4/59.4)	
	3/4" BSPT		HFC241235GHT	HFCD241235BSPT	1.23 (31.2)	2.21/2.33 (56.1/59.2)	
	3/4" GHT		HFC241235GHT	HFCD241235GHT	1.23 (31.2)	2.03/2.15 (51.6/54.6)	
 <b>IN-LINE PIPE THREAD (FEMALE) (NON-VALVED SHOWN)</b>	3/4" GHT		HFC261235GHT	HFCD261235GHT	1.37 (34.8)	1.79/1.91 (45.5/48.5)	
	3/4" BSPP		HFC261235BSPP	HFCD261235BSPP	1.37 (34.8)	1.79/1.91 (45.5/48.5)	
 <b>IN-LINE HOSE BARB (NON-VALVED SHOWN)</b>	3/8" ID	9.5mm ID	HFC22635	HFCD22635	1 (25.4)	1.91/2.03 (48.5/51.6)	
	1/2" ID	12.7mm ID	HFC22835	HFCD22835	1 (25.4)	1.91/2.03 (48.5/51.6)	
	5/8" ID	15.9mm ID	HFC221035	HFCD221035	1 (25.4)	2.03/2.15 (51.6/54.6)	
	3/4" ID	19.0mm ID	HFC221235	HFCD221235	1 (25.4)	2.03/2.15 (51.6/54.6)	
 <b>ELBOW HOSE BARB (NON-VALVED SHOWN)</b>	3/8" ID	9.5mm ID	HFC23635	HFCD23635	1 (25.4)	1.92/2.04 (48.8/51.8)	0.93 (23.6)
	1/2" ID	12.7mm ID	HFC23835	HFCD23835	1 (25.4)	1.96/2.08 (49.8/52.8)	0.93 (23.6)





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

## HFC35 & HFC57 ACCESSORIES




DESCRIPTION	MATERIAL	PART NO.
<b>PANEL MOUNT GASKET REPLACEMENT: FOR SEALING PANEL MOUNT BODIES LISTED ABOVE</b>	EPDM	621200
<b>GHT GASKET REPLACEMENT: FOR SEALING FEMALE THREADS</b>	FDA EPDM	2339400

# HFC57 SERIES DIMENSIONS

## COUPLING BODIES - UV Polysulfone

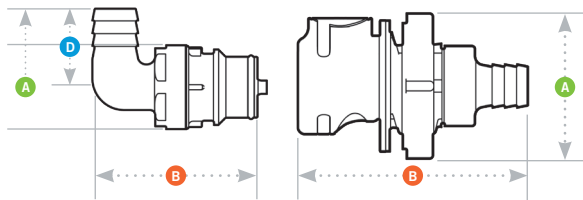
TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
 <b>IN-LINE PIPE THREAD</b>	3/8" BSPT			HFCD10657BSPT	1.44 (36.6)	2.73 (69.3)
	1/2" NPT		HFC10857	HFCD10857	1.44 (36.6)	2.88 (73.2)
	1/2" BSPT			HFCD10857BSPT	1.44 (36.6)	2.88 (73.2)
	3/4" BSPT			HFCD101257GHT	1.44 (36.6)	3.12 (79.2)
	3/4" GHT		HFC101257GHT	HFCD101257GHT	1.44 (36.6)	2.94 (74.7)
 <b>IN-LINE PIPE THREAD (FEMALE)</b>	3/4" GHT		HFC191257GHT	HFCD191257GHT	1.44 (36.6)	2.70 (68.6)
 <b>BULKHEAD PANEL MOUNT HOSE BARB</b>	3/8" ID	9.5mm ID		HFCD16657	1.82 (46.2)	2.82 (71.6)
	1/2" ID	12.7mm ID		HFCD16857	1.82 (46.2)	2.82 (71.6)
	5/8" ID	15.9mm ID		HFCD161057	1.82 (46.2)	2.94 (74.7)
	3/4" ID	19.0mm ID		HFCD161257	1.82 (46.2)	2.94 (74.7)
 <b>IN-LINE HOSE BARB</b>	3/8" ID	9.5mm ID	HFC17657	HFCD17657	1.44 (36.6)	2.82 (71.6)
	1/2" ID	12.7mm ID	HFC17857	HFCD17857	1.44 (36.6)	2.82 (71.6)
	5/8" ID	15.9mm ID		HFCD171057	1.44 (36.6)	2.94 (74.7)
	3/4" ID	19.0mm ID	HFC171257	HFCD171257	1.44 (36.6)	2.94 (74.7)

## COUPLING INSERTS - UV Polysulfone

TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
 <b>IN-LINE PIPE THREAD</b>	3/8" BSPT	HFCD24657BSPT	HFC24657BSPT	HFCD24857	1.16 (29.5)	1.84/1.96 (46.7/49.8)
	1/2" BSPT	HFCD24857BSPT	HFC24857BSPT	HFCD241257BSPT	1.16 (29.5)	1.99/2.07 (50.6/52.6)
	1/2" NPT	HFCD24857	HFC24857	HFCD241257GHT	1.16 (29.5)	1.95/2.11 (49.5/53.6)
	3/4" BSPT	HFCD241257BSPT			1.23 (31.2)	2.19/2.31 (55.6/58.7)
	3/4" GHT	HFCD241257GHT	HFC241257GHT		1.16 (29.5)	2.15/2.27 (54.6/57.7)
 <b>IN-LINE PIPE THREAD (FEMALE) (NON-VALVED SHOWN)</b>	3/4" GHT		HFC261257GHT	HFCD261257GHT	1.37 (34.8)	1.79/1.91 (45.5/48.5)
 <b>IN-LINE HOSE BARB (NON-VALVED SHOWN)</b>	3/8" ID	9.5mm ID	HFC22657	HFCD22657	1 (25.4)	1.91/2.03 (48.5/51.6)
	1/2" ID	12.7mm ID	HFC22857	HFCD22857	1 (25.4)	1.91/2.03 (48.5/51.6)
	5/8" ID	15.9mm ID		HFCD221057	1 (25.4)	2.03/2.15 (51.6/54.6)
	3/4" ID	19.0mm ID	HFC221257	HFCD221257	1 (25.4)	2.03/2.15 (51.6/54.6)

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.

## PRODUCT DIMENSIONS



- A = Height/Diameter
- B = Total Length
- D = Elbow Radial Length

## PANEL DIMENSIONS

	PANEL OPENING	PANEL THICKNESS MAX.-MIN.
<b>COUPLING BODIES</b>	see drawing	0.25-0.03

