HFC12 SERIES

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

For compression termination specifications:
3/8" OD or 1/2" OD, +0.010/-0.000

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of Colder products in their own application conditions. Use the graphs on the following page as a guide.

Note:
Optional o-ring and spring materials are available, please contact Colder for details.

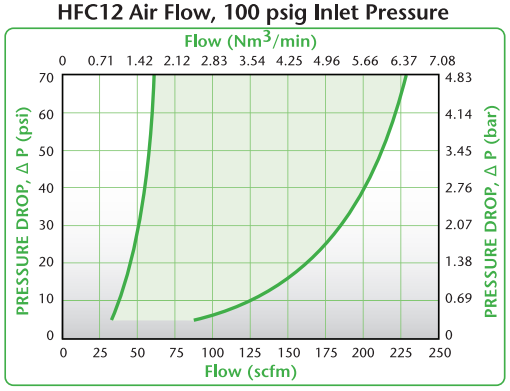
Patented HFC12 Series couplings have flow comparable to many 1/2" flow couplings in a 3/8" body size. Compact and lightweight, HFC couplings replace bulky and heavy brass ball-and-sleeve couplings in a wide range of applications. An ergonomic design and a large, shrouded thumb latch pad produce a coupling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

Features	Benefits
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

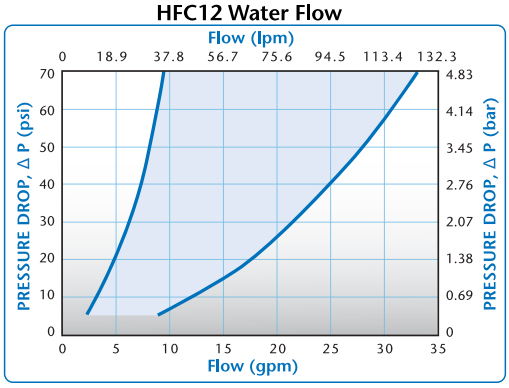
Also available in NSF listed versions, please visit our web site for part number information

NSF

HFC12 Air Flow, 100 psig Inlet Pressure

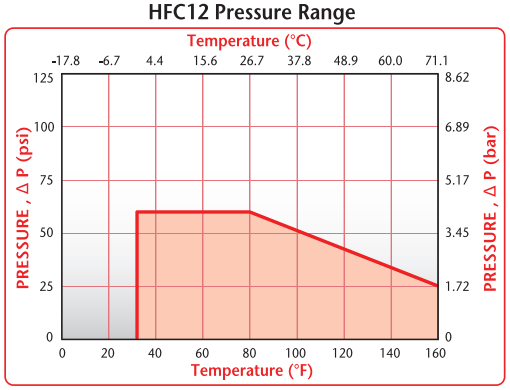


HFC12 Water Flow



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.

HFC12 Pressure Range



DID YOU KNOW ...
Colder offers over 7,000 couplings for a wide variety of applications such as low-pressure air and fluid line connections, high-purity chemical management and bioprocessing connectors. Contact us at 1-800-444-2474 or 651-645-0091 to learn how Colder can make your connections *cleaner, faster, safer and smarter!*

Don't forget: you can always visit www.colder.com for more product information.

Liquid Flow Rates

Liquid Flow Rate Information for Couplings

The chart below shows the flow rate for Colder 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.

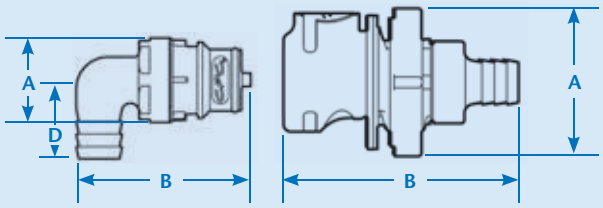
$$Q = C_V \sqrt{\frac{\Delta P}{S}}$$

Q=Flow rate in gallons per minute
C_V=Average coefficient across various flow rates (see chart)
ΔP=Pressure drop across coupling (psi)
S=Specific gravity of liquid

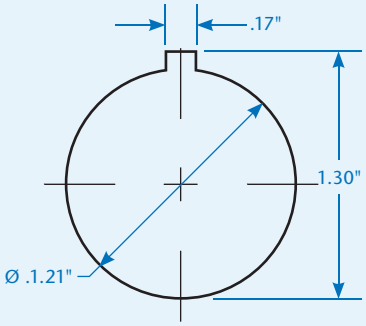
C_V Values for High Flow Couplings (HFC12)

BODIES	HFC 22612	HFCD 22612	HFC 22812	HFCD 22812	HFC 23612	HFCD 23612	HFC 23812	HFCD 23812	HFC 24612	HFCD 24612	HFC 24812	HFCD 24812	HFC 221212	HFCD 221212
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

Product Dimensions



A = Height/Diameter
B = Total Length (including valve)
D = Elbow Radial Length



Gasket Thickness: .06"
Mounting Hole: 1.21" diameter
Coupling Spacing: 1.62" minimum

	PANEL OPENING	MAX. PANEL THICKNESS	MIN. PANEL THICKNESS
COUPLING BODIES	see drawing	.25	.03

Coupling Bodies

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TERMINATION	THREAD SIZE		STRAIGHT THRU	SHUTOFF	A	B
IN-LINE PIPE THREAD	3/8" NPT		HFC10612	HFC10612	1.44	2.69
	3/8" BSPT		HFC10612BSPT	HFC10612BSPT	1.44	2.72
	1/2" NPT		HFC10812	HFC10812	1.44	2.88
	3/4" NPT		HFC101212	HFC101212	1.44	3.07

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
BULKHEAD PANEL MOUNT HOSE BARB	3/8" ID	9.5mm ID	HFC16612	HFCD16612	1.82	2.82
	1/2" ID	12.7mm ID	HFC16812	HFCD16812	1.82	2.82
	5/8" ID	15.9mm ID	HFC161012	HFCD161012	1.82	2.94
	3/4" ID	19.0mm ID	HFC161212	HFCD161212	1.82	2.94

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
BULKHEAD PANEL MOUNT COMPRESSION	3/8" OD	9.5mm OD	HFC12612	HFCD12612	1.82	2.96
	1/2" OD	12.7mm OD	HFC12812	HFCD12812	1.82	3.11

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
IN-LINE HOSE BARB	3/8" ID	9.5mm ID	HFC17612	HFCD17612	1.44	2.79
	1/2" ID	12.7mm ID	HFC17812	HFCD17812	1.44	2.79
	5/8" ID	15.9mm ID	HFC171012	HFCD171012	1.44	2.94
	3/4" ID	19.0mm ID	HFC171212	HFCD171212	1.44	2.94

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
IN-LINE COMPRESSION	3/8" OD	9.5mm OD	HFC13612	HFCD13612	1.44	2.96
	1/2" OD	12.7mm OD	HFC13812	HFCD13812	1.44	3.11

Accessories

		MATERIAL	PART NO.
PANEL MOUNT GASKET REPLACEMENT	For sealing panel mount bodies listed above	EPDM	621200

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

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TERMINATION	THREAD SIZE		STRAIGHT THRU	SHUTOFF	A	B
IN-LINE	3/8" NPT		HFC24612	HFCD24612	1.16	1.77/1.89
PIPE THREAD	3/8" BSPT		HFC24612BSPT	HFCD24612BSPT	1.16	1.80/1.92
	1/2" NPT		HFC24812	HFCD24812	1.16	1.95/2.07
	3/4" NPT		HFC241212	HFCD241212	1.23	2.14/2.26

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
IN-LINE	3/8" ID	9.5mm ID	HFC22612	HFCD22612	1.00	1.97/2.09
HOSE BARB	1/2" ID	12.7mm ID	HFC22812	HFCD22812	1.00	1.97/2.09
	5/8" ID	15.9mm ID	HFC221012	HFCD221012	1.00	2.01/2.13
	3/4" ID	19.0mm ID	HFC221212	HFCD221212	1.00	2.14/2.26

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B
IN-LINE	3/8" OD	9.5mm OD	HFC20612	HFCD20612	1.00	2.14/2.26
COMPRESSION	1/2" OD	12.7mm OD	HFC20812	HFCD20812	1.00	2.29/2.41

TERMINATION	TUBING SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	D
ELBOW	3/8" ID	9.5mm ID	HFC23612	HFCD23612	1.00	1.93/2.05	.93
HOSE BARB	1/2" ID	12.7mm ID	HFC23812	HFCD23812	1.00	1.97/2.09	.93
	3/4" ID	19.0mm ID	HFC231212	HFCD231212	1.00	1.95/2.07	.93

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 shut-off 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.

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.