

BXX AND BXB SERIES

2/2 NORMALLY OPEN

Valves are normally open, requiring pressure at the pilot port to close. The BXX series requires an external pilot supply pressure equal to the inlet pressure to close. Pilot over-pressure should be avoided or diaphragm life may be reduced. The pilot signal is isolated from the process fluid and can be of a different medium to the process fluid. Pilot valves must have a 3/2 function to exhaust the pilot signal. The BXB series have a bleed hole in the diaphragm and use the process fluid to close the valve. This allows the use of a 2/2 pilot valve. Caution: Process

fluid carried through the valve will be exhausted through the pilot valve.

SPECIFICATIONS

Pressure

Operating pressure range:

Refer to Table.

Minimum pressure differential:

Refer to Table.

Fluid Temperatures

Nitrile and Viton seals:

Fluid temperature range

-34°C to +82°C [-29°F to +180°F]

EPDM seals:

Fluid temperature range

0°C to +95°C [+32°F to +203°F]

Ambient Temperatures Same as fluid temperatures

Approvals and Standards

ISO 9001 Quality Management System,

Certificate: QEC0366

Watermark certificate number:

WMKA00172

RoHS Compliance to Directive

2002/95/EC

Part Number Code:

1 2 B X X 2 - N W B E T

Valve Size

6	1/4" pipe thread
10	3/8" pipe thread
12	1/2" pipe thread
20	3/4" pipe thread
25	1" pipe thread
40	1-1/2" pipe thread (BXX only)

Valve Type

BXX	Pilot separate from valve fluid
BXB	Pilot uses valve fluid (diaphragm bleed hole)

Series Revision

2	All valves except size 20
3	Size 20 valve only

Construction Type

N	Pneumatic actuated valve (no solenoid)
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Special Features

N	No special features
W	Australian Watermark Approval – (BXX with EPDM seals only)
X	Cleaned for Oxygen service – (Viton seals only)

Body Material

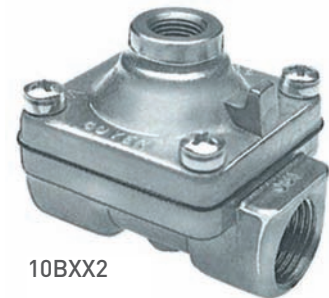
B	Brass (DR – Dezincification Resistant)
N	Additional electroless nickel plating

Seal Material

E	EPDM
N	Nitrile
V	Viton

Port Thread

T	RC Thread (BSPT)
A	NPT Thread



10BXX2

OPERATING PRESSURE RANGE

VALVE MODEL	PRESSURE	
	KPA	PSI
BXX *	70 to 1000	10 to 150
BXB	20 to 1000	3 to 150

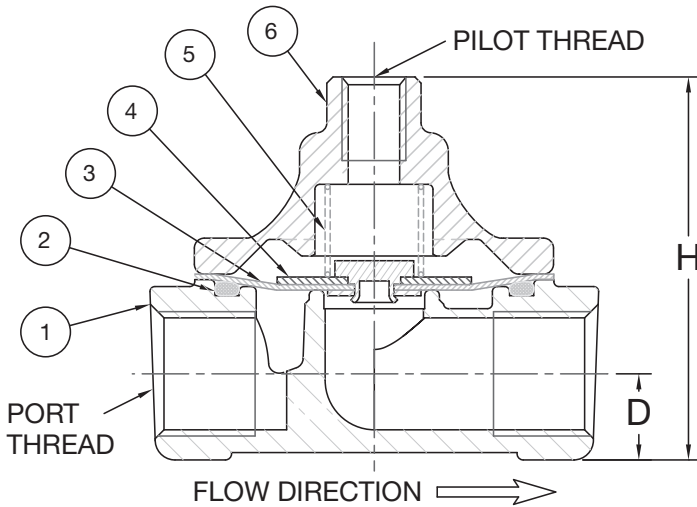
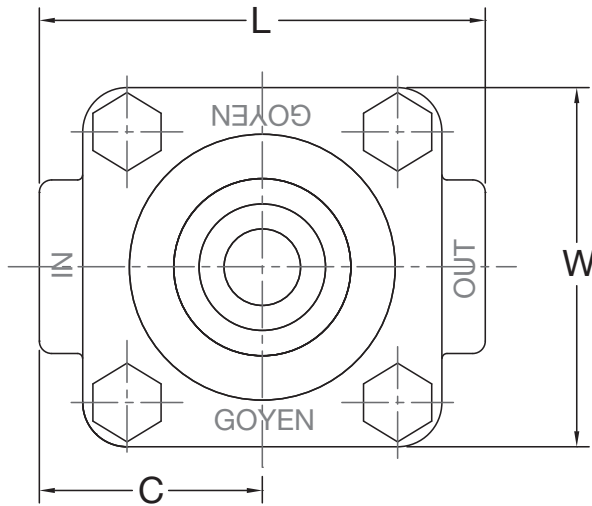
* Note: Minimum pilot pressure is equal to the inlet pressure

CONNECTION AND FLOW

VALVE SIZE	PIPE SIZE		ORIFICE SIZE		FLOW FACTOR	
	MM	INCH	MM	INCH	CV	KV
6	6	1/4	6.4	0.25	1.1	0.95
10	10	3/8	9.5	0.38	2.1	1.81
12	12	1/2	12.7	0.50	3.5	3.01
20	20	3/4	19.0	0.75	7.7	6.62
25	25	1	25.4	1.00	13.2	11.35
40	40	1-1/2	38.1	1.50	24.0	20.64

DIMENSIONS

VALVE MODEL	PORT THREAD	PILOT THREAD	L		W		H		C		D	
			MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH
6BXX 6BXB	1/4" pipe thread	1/8" pipe thread	55.0	2.17	41.3	1.63	45.0	1.77	27.5	1.08	11.0	0.43
10BXX 10BXB	3/8" pipe thread	1/8" pipe thread	55.0	2.17	41.3	1.63	45.0	1.77	27.5	1.08	11.0	0.43
12BXX 12BXB	1/2" pipe thread	1/8" pipe thread	72.0	2.83	58.0	2.28	62.0	2.44	36.0	1.42	14.3	0.56
20BXX 20BXB	3/4" pipe thread	1/8" pipe thread	89.0	3.50	68.3	2.69	72.0	2.83	44.5	1.75	17.5	0.69
25BXX 25BXB	1" pipe thread	1/8" pipe thread	105.0	4.13	79.4	3.13	82.0	3.23	52.5	2.07	20.6	0.81
40BXX 40BXB	1-1/2" pipe thread	1/4" pipe thread	156.0	6.14	95.3	3.75	92.0	3.62	78.0	3.07	28.5	1.12



TYPICAL CONSTRUCTION

12BXX2 SHOWN

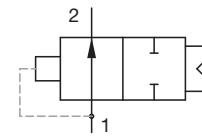
SPARE PARTS KITS – BXX SERIES

Kits consist of spring, seal and diaphragm.

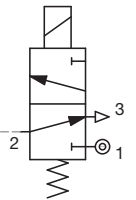
MODEL	NITRILE	VITON	EPDM
6BXX2	KM1208A	KM1521	KM2392
10BXX2	KM1208A	KM1521	KM2392
12BXX2	KM1211A	KM1773	KM1991
20BXX2*	KM3146C	KM3147C	KM3148C
20BXX3	KM3146	KM3147	KM3148
25BXX2	KM1518	KM1524	KM1993
40BXX2	KM3019	KM3151	KM3152

* Conversion kit from 20BXX2 to 20BXX3

BXX SCHEMATIC

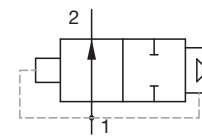


BXX VALVE

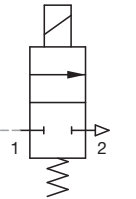


PILOT VALVE

BXB SCHEMATIC



BXB VALVE



PILOT VALVE

CONSTRUCTION

ITEM	DESCRIPTION	MATERIAL
1	Body	486 Brass (DR)
2	Sealing Ring	Nitrile, Viton or EPDM
3	Diaphragm	Nitrile, Viton or EPDM
4	Diaphragm Plates	304 Stainless Steel
5	Diaphragm Spring*	304 Stainless Steel
6	Cover	486 Brass (DR)

* Spring not used in 25BXX2

SPARE PARTS KITS – BXB SERIES

Kits consist of spring, seal and diaphragm.

MODEL	NITRILE	VITON	EPDM
6BXB2	KM2429A	KM2430	KM2431
10BXB2	KM2429A	KM2430	KM2431
12BXB2	KM1351	KM2433	KM2434
20BXB2*	KM3155C	KM3156C	KM3157C
20BXB3	KM3155	KM3156	KM3157
25BXB2	KM1519	KM2439	KM2440

* Conversion kit from 20BXB2 to 20BXB3