

SBDFR (1/4", 3/8", 1/2")

Features

- Shavo's Bi-directional Flow Regulator unit for process control is specifically designed as high performance product for instrument air use in severe atmosphere.
- Shavo's Bi-directional Flow regulator controls the flow separately in each directions.
- Typical application is the speed control of an actuator.
- CE, ATEX, EAC Ex(CUTR-12), EAC (CUTR-10) approved.
- Suitable for the applications include marine environment, oil and gas productions, chemicals and food processing, medical analysis, corrosive atmosphere etc.
- External and internal parts are NACE MR 0175* approved.

(*National Association of Corrosion Engineers MR-0175 defines requirements for sulphide stress cracking resistant materials used in oilwells and corrosive environments).



PARAMETERS	SPECIFICATIONS
Fluid / Operating Media	Compressed Air Gases - Filtered lubricated or non-lubricated air, inert gas, sweet (Natural) gases. Liquids - Low pressure hydraulic, mineral oil or water
Pipe size/ Connections	1/4", 3/8", 1/2"
Pipe Thread	NPT - Standard BSPT, BSP - Optional
Max. Working Pressure	12 bar (174 psi) maximum.
Material of Construction Body, bonnet, internals Spring Seals (Elastomers)	SS 316L, SS316 (NACE MR0175 compliance) SS316 Low temp. Nitrile(LNBR) - Std.
Operating Temperature Range(ambient) For Elastomers	Low temperature Nitrile(LNBR) : -60°C to +80°C (Std)
Standard Nominal Flow rate at 6bar(85 psi) supply pressure and 1 bar (14.5 psi) pressure drop (differential)	1/4" - 22 scfm (620 slpm) 3/8" - 45 scfm (1290 slpm) 1/2" - 71 scfm (2000 slpm)
CV value	1/4" - 0.60 3/8" - 1.30 1/2" - 2.00
Weight	1/4" 0.380 kg. 3/8" 0.980 kg. 1/2" 0.980 kg.

Note:

- 1) Lock Nut (hex nut) and spring will not have NACE MR0175 compliance.
- 2) Internal 'wetted' parts will have NACE MR 0175 compliance.

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Option Selector

Sample Model Number → **S B D F R - L 2 N - X X X - S - X X X**

Position → **0 1 2 3 4 - 5 6 7 - 8 9 10 - 11 - 12 13 14**

0 S = Shavo

1 2 3 4 Product Description BDFR = Bi-Directional Flow Regulator (VALVE)

5 Elastomer Type L = Low Temperature Nitrile (LNBR)

6 Port Size
2 = 1/4"
3 = 3/8"
4 = 1/2"

7 Thread type

N	NPT
[B]	BSPT
[G]	BSP

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8 9 10 Test / Approval

A	0	0	ATEX
A	0	1	UKEX
A	0	2	UKCA
A	0	3	ATEX, UKEX, EAC Ex, UKCA
A	0	4	ATEX, UKEX, EAC Ex
A	0	5	ATEX, UKEX, UKCA
A	0	6	ATEX, UKEX, EAC Ex
B	0	0	ATEX, CE
B	0	1	ATEX, CE, UKEX, EAC Ex, UKCA
B	0	2	ATEX, CE, UKEX, EAC Ex
B	0	3	ATEX, CE, UKEX, UKCA
B	0	4	ATEX, CE, UKCA, EAC Ex
B	0	5	ATEX, CE, EAC Ex
C	0	0	CE
C	0	1	CE, UKEX, EAC Ex, UKCA
C	0	2	CE, UKEX, EAC Ex
C	0	3	CE, UKEX, UKCA
C	0	4	CE, EAC Ex, UKCA
C	0	5	CE, EAC EX
D	0	0	ATEX, EAC
D	0	1	ATEX, EAC, UKEX, EAC Ex, UKCA
D	0	2	ATEX, EAC, UKEX, EAC Ex
D	0	3	ATEX, EAC, UKEX, UKCA
D	0	4	ATEX, EAC, EAC Ex, UKCA
E	0	0	EAC
E	0	1	EAC, UKEX, EAC Ex, UKCA
E	0	2	EAC, UKEX, EAC Ex
E	0	3	EAC, UKEX, UKCA
E	0	4	EAC, EAC EX, UKCA
G	0	0	CE, EAC
G	0	1	CE, EAC, UKEX, EAC Ex, UKCA
G	0	2	CE, EAC, UKEX, EAC Ex
G	0	3	CE, EAC, UKEX, UKCA
G	0	4	CE, EAC, EAC Ex, UKCA
N	0	0	ATEX, CE, EAC
N	0	1	ATEX, CE, EAC, UKEX, EAC Ex, UKCA
N	0	2	ATEX, CE, EAC, UKEX, EAC Ex
N	0	3	ATEX, CE, EAC, UKEX, UKCA
N	0	4	ATEX, CE, EAC, EAC Ex, UKCA
[O]	[0]	[0]	Other customer special requirement if Any
Q	0	0	ATEX, EAC Ex
R	0	0	EAC Ex
R	0	1	EAC Ex, UKEX, UKCA
R	0	2	EAC Ex, UKCA
X	X	X	STANDARD UNITS WITHOUT ANY CERTIFICATE / APPROVAL

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11 Material of Construction / Flow Capacity

S = SS316L Standard flow version

12 13 14 Compliance

X	X	X	Standard Unit Without any Complince
A	0	1	RoHS 3 Compliance
A	0	2	REACH Compliance
A	0	3	Copper Free (Only Applicable Aluminium Version)
A	0	4	RoHS3, REACH Compliance
A	0	5	RoHS3, REACH, Copper Free (Only Applicable for Aluminium Version)
A	0	6	RoHS3, Copper Free (Only Applicable for Aluminium Version)
A	0	7	REACH, Copper Free (Only Applicable for Aluminium Version)

Note : Option shown in the [] bracket are special, Please contact Sales HQ/Manufacturing.