

FILTER REGULATOR MODEL SB77 BROCHURE



Filter Regulator Model SB77

SB77 (G 1/8, G 1/4)

FEATURES

- Filter/Regulator combination model SB77 unit for process control is designed as a high-performance product for instrument air use in corrosive atmosphere.
- Applications include marine environments, oil and gas production, chemicals and food processing, medical analysis etc.
- SIL3 capable as per IEC 61508.
- CE,EAC [CUTR 10(equivalent to GOST R&K)] approved.
- External Metallic parts meet NACE standard MR 0175*.

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

PARAMETERS	SPECIFICATIONS
Fluid	Compressed Air
Pipe size	1/8", 1/4"
Pipe Thread	NPT - Standard BSPT, BSP - Optional
Max. Inlet Pressure	30 bar (435 psi)
Max. Operating Temp.(Ambient)	+80° C
Filter Element Size	25 micron - Standard 5, 40 micron - Optional
Filter Element Material	SS 316 - Std. Sintered Bronze, Porous Plastic - Optional
Material of Construction	Stainless Steel as per AISI 316L
Body, Bonnet, Bowl	SS 316L with NACE compliance (MR 0175)
Internal parts	SS 316L/ SS 304
External parts	SS 316L with NACE compliance (MR 0175)
Diaphragm Assembly	Synthetic Rubber without PTFE protection - Standard Synthetic Rubber with PTFE - Optional
Elastomer	Low Temp. Nitrile (LNBR) -60°C to +80°C (Std) EPDM -35°C to +120°C Fluorocarbon (Viton-FKM) -20°C to +180°C
Bowl Capacity	30 ml.
Regulated secondary pressure ranges	0.70 - 7.0 bar (10.0 - 100 psi) - Standard 0.07 - 0.70 bar (1 - 10 psi) - Optional 0.1 - 2.10 bar (3 - 30 psi) - Optional 0.35 - 3.50 bar (5 - 50 psi) - Optional 1.0 - 10.0 bar (15.0-150 psi) - Optional
Standard Nominal Flow Rate at 10 bar (150psi) inlet pressure 6 bar (87 psi) set pr. and a drop of 1 bar(14.5 psi) from set	1/8" - 18 scfm (8.4 dm3/sec) 1/4" - 19 scfm (9.0 dm3/sec)
CV Value	1/8" - (0.33) 1/4" - (0.35)
Drain	Manual - Standard
Regulator Type	Relieving - Standard Non-Relieving - Optional
Pressure Adjustment	Allen Head
Gauge Port (2 nos.)	1/8" NPT (Fe) - Standard 1/8" BSPT (Fe) - Optional
Gauge size (dial size)	50 mm OD (Nominal)
Mounting	P.M. NUT - Standard Wall Mounting Bracket - Optional
Weight	0.6 Kgs.

+Values indicated are with 40 micron elements, with finer elements these values will be lower.



Note :

1) PM Nut, Mounting bracket, Grub screw will not have NACE MR 0175 approval.

2) Pressure gauge will not have CE,EAC,SIL3, NACE MR 0175 approval.

3) Automatic drain available with Nitrile elastomer only.

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Size	Flow (scfm)	Element (um)	Drain	Bowl	Range (psi)	Operation	Model
G1/8"	18 scfm (8.4 dm ³ /sec)	25 SS	Manual	Metal	10 - 100 psi	Relieving	SB77-171-M5KA-NAA
G 1/4"	19 scfm (9.0 dm ³ /sec)	25 SS	Manual	Metal	12 - 125 psi	Relieving	SB77-271-M5KA-NAA

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Option Selector

Sample Model Number → **S B 7 7 - 2 2 1 - M 2 K A - N - X X X - X X X**

Position → **0 1 2 3 - 4 5 6 - 7 8 9 10 - 11 - 12 13 14 - 15 16 17**

0 S = Shavo

1 Product B = Filter Regulator Combination Unit

2 3 Series 77 = Miniature - With S.S.316L MOC

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

Material of Construction		NON-RELIEVING ELASTOMER MATERIAL								RELIEVING ELASTOMER MATERIAL							
		WITHOUT GAUGE				WITH SS GAUGE				WITHOUT GAUGE				WITH SS GAUGE			
BONNET	BOWL	NITRILE	EPDM	VITON	Low Temp Nitrile	NITRILE	EPDM	VITON	Low Temp Nitrile	NITRILE	EPDM	VITON	Low Temp Nitrile	NITRILE	EPDM	VITON	Low Temp Nitrile
Plastic	S.S.	51	[52]	[53]	54	61	[62]	[63]	64	[56]	[57]	[58]	59	[66]	[67]	[68]	69
S.S.	S.S.	71	[72]	[73]	74	81	[82]	[83]	84	[76]	[77]	[78]	79	[86]	[87]	[88]	89
Plastic	P.C.	11	[12]	[13]	14	91	[92]	[93]	94	[16]	[17]	[18]	19	[96]	[97]	[98]	99
S.S.	P.C.	31	[32]	[33]	34	41	[42]	[43]	44	[36]	[37]	[38]	93	[46]	[47]	[48]	49

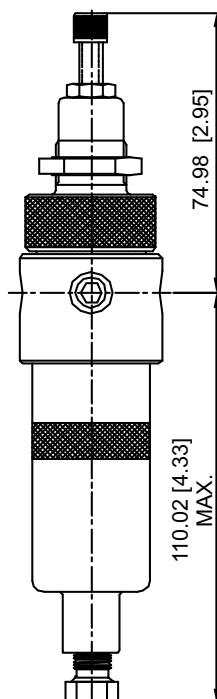
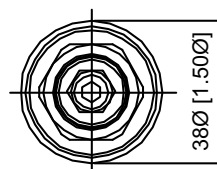
7 Drain
M = Manual
A = Automatic drain
(available with Nitrile elastomers only)

8 Filter Element
1 = 05 Micron Porous Plastic
2 = 25 Micron Porous Plastic
3 = 40 Micron Porous Plastic
5 = 5 Micron S.S.
4 = 25 Micron S.S.
9 = 40 Micron S.S.
6 = 5 Micron Sint. Br.
7 = 25 Micron Sint. Br.
8 = 40 Micron Sint. Br.

9 Sec. Pr. Range
A = 1-10 psi (0.07-0.70)
C = 3-30 psi (0.21-2.10)
E = 5-50 psi (0.35-3.50)
K = 10-100 psi (0.07-7.0)
M = 15-150 psi (1.0-10.0)

	Main Port	Gauge Port
A	NPT	BSPT
B	BSPT	BSPT
G	BSP	BSPT
N	NPT	NPT

11 Mounting
N = No Wall Mounting Bracket
B = Wall Mounting Bracket Fitted(SS)
P = 2" Pipe Mounting bracket fitted (SS)



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12 13 14 Test / Approval

C	0	0	CE
C	0	1	UKCA
C	0	2	CE,UKCA
E	0	0	EAC
E	0	1	EAC, UKCA
S	0	0	SIL3
S	0	1	SIL3, UKCA
G	0	0	CE, EAC
G	0	1	CE, EAC, UKCA
H	0	0	CE, SIL3
H	0	1	CE, SIL3, UKCA
K	0	0	CE, EAC, SIL3
K	0	1	CE, EAC, SIL3, UKCA
X	X	X	Standard Units Without Any Certificatios / Approval
[0]	[0]	[0]	Other Customer Special Requirement if Any

15 16 17 Compliance

X	X	X	Standard Unit Without any Compliance
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.
Panel mounting nut is standard for all units.



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