

Datasheet FG-0x1Ax

control valve for gas flow applications

> Introduction

Bronkhorst designed the control valve model FG-0x1Ax for gas flow applications with low flow rates and pressure rating up to 100 bar. This control valve is directly operated by a magnetic coil with IP40 or IP65 (weatherproof) housing and is closed when de-energized (Normally Closed). Depending on flow rate the FG-0x1Ax valve allows a pressure drop of max. 4 to 40 bar (d). Together with a Bronkhorst mass flow / pressure meter it offers possibilities to constitute a compact flow or pressure control loop.



Control valve model FG-0x1A1

> Technical specifications

Operating conditions

Max. pressure : 64/100 bar g
 Operating temperature : 10...+70°C

Mechanical parts

Material (wetted parts) : stainless steel 316L or comparable
 Process connections : compression type or face seal male
 Seals / Plunger, standard : Viton/FKM with Kalrez/FFKM plunger
 Leak integrity, outboard : $1 \cdot 10^{-9}$ mbar.l/s He

Electrical specifications

Valve control signal : 0...185 mA
 Max. power consumption : 2,7 Watt (15 V · 0,185 A)
 Ingress protection : IP40/IP65

Although all specifications in this datasheet are believed to be accurate, the right is reserved to make changes without notice or obligation.

Kv-values vs Max. ΔP

Kv-value (up to)	Orifice size (mm)	ΔP max* (bar d)
4,3.10-5	0,05	40
8,4.10-5	0,07	30
1,7.10-4	0,10	30
3,3.10-4	0,14	30
6,9.10-4	0,20	30
1,5.10-3	0,30	30
2,3.10-3	0,37	30
4,3.10-3	0,5	30
8,4.10-3	0,7	24
1,7.10-2	1,0	12
2,9.10-2	1,3	8
3,9.10-2	1,5	6
5,0.10-2	1,7	5
6,6.10-2	2,0	4

* depending on flow rate

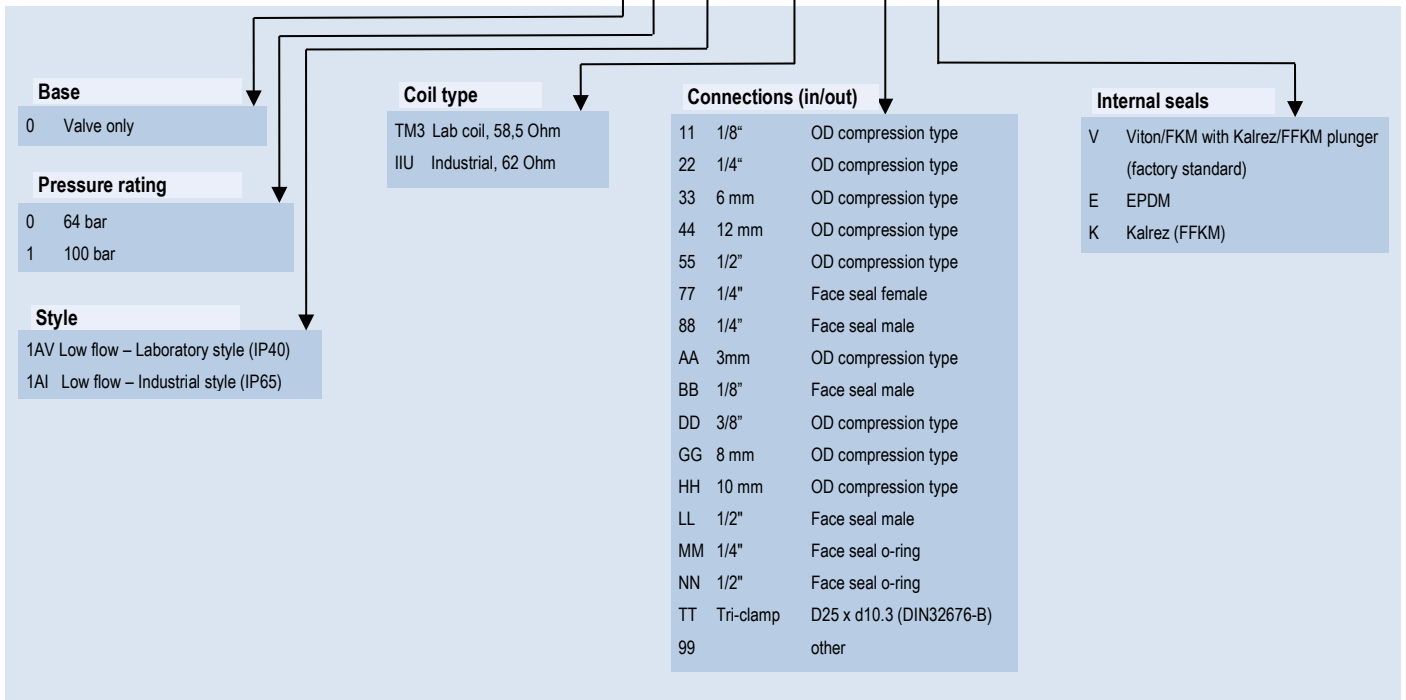


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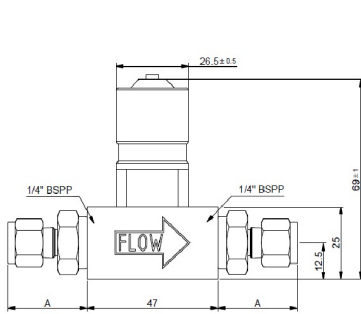
> Model number identification

FG - N N N A N - AAA - NN - A



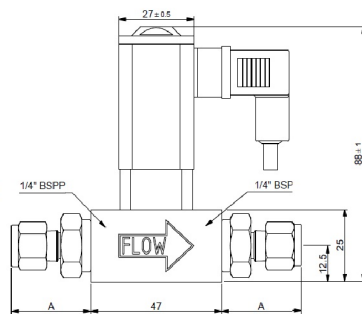
> Dimensions (mm) and weights (kg)

FG-0x1AV



Weight 0.43 kg

FG-0x1AI



Weight 0.53 kg

			A
adapter	3 mm	OD	26.1
adapter	6 mm	OD	28.4
adapter	8 mm	OD	29.4
adapter	10 mm	OD	30.2
adapter	12 mm	OD	32.5
adapter	1/8"	OD	26.1
adapter	1/4"	OD	28.4
adapter	3/8"	OD	29.9
adapter	1/2"	OD	32.7

		A
adapter	1/8" Face seal male	19.3
adapter	1/4" Face seal female	48.2
adapter	1/4" Face seal male	23.4
adapter	1/4" Face seal o-ring	19.8
adapter	1/2" Face seal male	27.8
adapter	1/2" Face seal o-ring	22.8
adapter	Tri-clamp D25 x d10.3	25