

Control valve



Actuator

- pneumatic
- electric

Nominal bores

- DN 15 to 150
- ANSI 1/2" to 6"

Pressure ratings

- PN 16 to 40
- ANSI Classes 150 and 300

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Features

Body designed to meet flowpath criteria

Modular design

Stem guiding

Compact, sturdy construction

Easily replaceable components

Stainless steel internal parts

Actuation

Columns comply with NAMUR

Integrated pipeless mounting of position regulators possible

Interchangeable trim

Advantages

- less noise
- less wear
- less maintenance

- many different combinations of valves and actuators possible
- plug / seat combinations
 - metal-sealing
 - soft-sealing
 - stellite or nitride hardened
 - lapped
- packing arrangements
 - maintenance-free PTFE glands
 - graphite etc.
 - complying with TA-air according to VDI2441

- precise ball guidance
- guided packing space
- minimal packing wear

- saves installation space

- low operating costs

- no corrosion

- pneumatic, electric and manual

- simple mounting of positioners, limit switches etc.

- high availability
- retrofitting possible

- plug / seat can be replaced

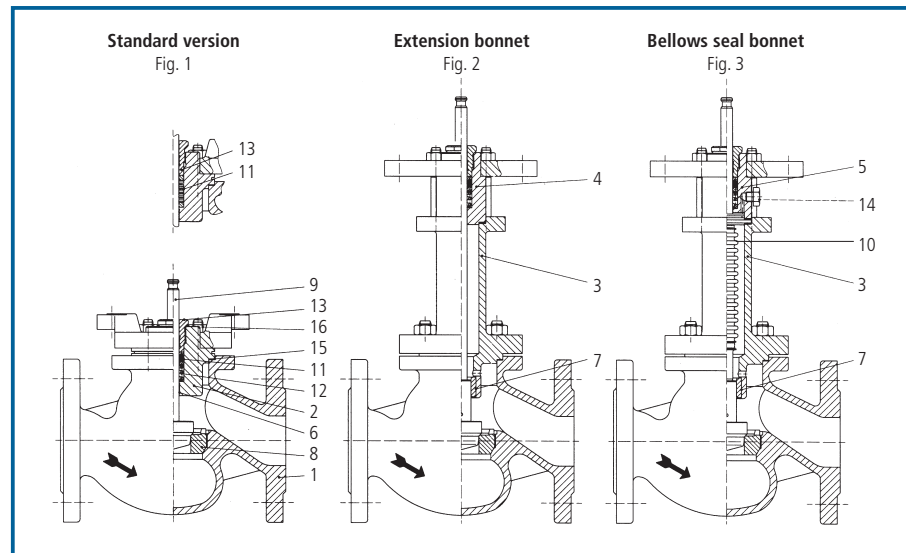
Applications

Control valves in the 8B-series have been designed to meet various different industrial requirements relating to process technology.

Technical data

Nominal bores	<ul style="list-style-type: none"> ■ DN 15 to 150 ■ ANSI 1/2" to 6"
Pressure ratings	<ul style="list-style-type: none"> ■ carbon steel and stainless steel, PN 16 to 40 according to DIN 2401 ■ ANSI class 150 and 300
Characteristics	<ul style="list-style-type: none"> ■ equal percentage, linear, quick open
Rangeability	<ul style="list-style-type: none"> ■ kvs-values > 4 to ≤ 63, 50 : 1 ■ kvs-values ≤ 4 and > 63, 30 : 1
kvs-values	<ul style="list-style-type: none"> ■ control valve 0.06 to 260 m³/h, smaller kvs-values possible ■ quick open valve 4.3 to 365 m³/h
Leakage	<ul style="list-style-type: none"> ■ lapped plug and seat ≤ 0.01% of kvs-value up to a kvs ≤ 63, above that 0.05% ■ metal sealing ≤ 0.001% of kvs-value ■ PTFE-sealing : bubble-tight

Materials



Options

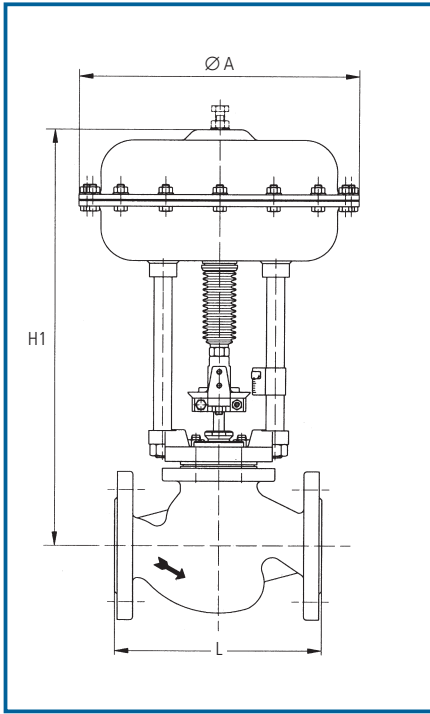
- special material e.g. hastelloy, titanium etc.
- model with heating jacket

1) Item	Fig.			Carbon steel GS-C 25		Stainless steel
	1	2	3			
1	Body			W 1.4301 (DN 15–65), W 1.0619 (DN 80–150)		W 1.4581
2	Bonnet			W 1.0619		W 1.4435
3	Extension bonnet			W 1.4301		W 1.4435
4	Stem seal			W 1.4301		W 1.4435
5	Stem seal			W 1.4301		W 1.4435
6	Guide bush			PTFE / W 1.4435		
7	Guide bush			W 1.4435 hardened		
8	Seat ring			Stainless steel		
9	Plug and stem			Stainless steel		
10	Bellows			W 1.4571		
11	Packing			PTFE-V-springs / hamar / graphite / PTFE/PTFE-graphite		
12	Pressure spring			W 1.4571		
13	Gland screw			W 1.4305		W 1.4435
14	Check-point			W 1.4435		
15	Gaskets			graphite		
16	Tap bolts and nuts			A 2 70		

1) No replacement part positioning. See operating- and service instructions 8B.7.

We reserve the right to use equivalent alternative materials.

Pneumatic actuators



Technical data

- compact construction, simple operation with multi-spring
- membrane surfaces: 110, 240, 510 and 1090 cm²
- setting forces 0.3 to 29 kN
- membrane made of polyamide weave with coating based on NBR
- housing made of steel plate coated on both sides with twin-pack epoxy resin, or in 316
- spindle made of W 1.4305, surface smoothed, O-ring seal
- maximum air supply pressure 6 bar
- permissible ambient temperature -30°C to +90°C
- quick and simple to reverse Po ↔ Ps

Optional extras

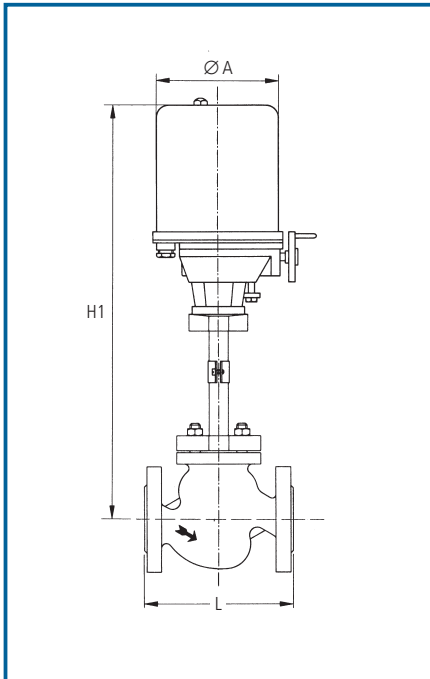
- housing made of W 1.4301, electrolytically polished if required
- mechanical stroke limitation, simple to adjust
- emergency manual adjustment

Accessories

- pneumatic and electro-pneumatic positioner, also in ex-version
- integrated mounting possible
- limit switches, solenoid valves, amplifiers etc.

Valve	DN	mm	15	20	25	32	40	50	65	80	100	150	
	L PN 16...40		130	150	160	180	200	230	290	310	350	480	
	1) approx. weight of valve (kg)		6.5	8.5	9	10	17	19	27.5	54	77	110	
	2) approx. weight of valve (kg)		10	12	13	14	22	24	32	56	84	115	
Actuator	MA...	approx. weight (kg)	Ø A	H1 standard 1)									
	9.16 A6 ...	4	162	341	341	341	341	371	371	371			
	9.21 A6 ...	6.5	210	402	402	402	402	432	432	432			
	9.31 B6 ...	18	310	412	412	412	412	442	442	442			
	9.31 A6 ...	19	310								543	568	613
	9.41 A6 ...	48	415								605	630	675
				H1 bellows / extension tube 2)									
	9.16 A6 ...	4	162	528	528	528	528	528	528	528			
	9.21 A6 ...	6.5	210	589	589	589	589	589	589	589			
	9.31 B6 ...	18	310	599	599	599	599	599	599	599			
	9.31 A6 ...	19	310								720	720	720
	9.41 A6 ...	48	415								782	782	782

Electrical actuators



Technical data

- connectors comply with DIN 3358 – F05, DIN 3210 – B0 and columns (pillars)
- thrust 0.6 bis 25 kN
- safety category IP 65
- permissible ambient temperature -20°C to +60°C
- motor voltage: standard 230 V 50 Hz
- 2 load switches built in as standard
- 1 travel-dependent switch 2.2,0 – 25

Optional extras

- other voltage
- limit switches
- feed back potentiometer, 1000 Ohm (other resistance values possible)
- electronic position transmitter
- positioner (positioning electronics, 0–10 V, 4–20 mA)
- heat-resistance

Valve	DN	mm	15	20	25	32	40	50	65	80	100	150	
	L PN 16...40		130	150	160	180	200	230	290	310	350	480	
	approx. weight of valve (kg)		6.5	8.5	9	10	17	19	27.5	54	77	110	
Actuator	SHE...	approx. weight (kg)	Ø A										
	2.0.6... – 1.2...	3	128	348	348	348	348	379	379	379			
	2.1.2... – 6...	7	145	478	478	478	478	509	509	509	589	614	659
	2.8... – 15...	11	188					564	564	564	644	669	714
	2.15... – 25...	18	216								710	735	780