

Motor Valve compact 8231

GS 1 series DN 15 up to DN 50



Motor valve for control and switching of neutral through to highly aggressive media in process engineering, chemical industries and for plant equipment.

- Space saving wafer type construction
- Lowest possible weight
- Low operation noise level (quiet operation)
- Self adaption
- Operating pressures up to 580 psi
- Control of high differential pressures with small actuators
- Available also with "spring return"



Technical Information Valve

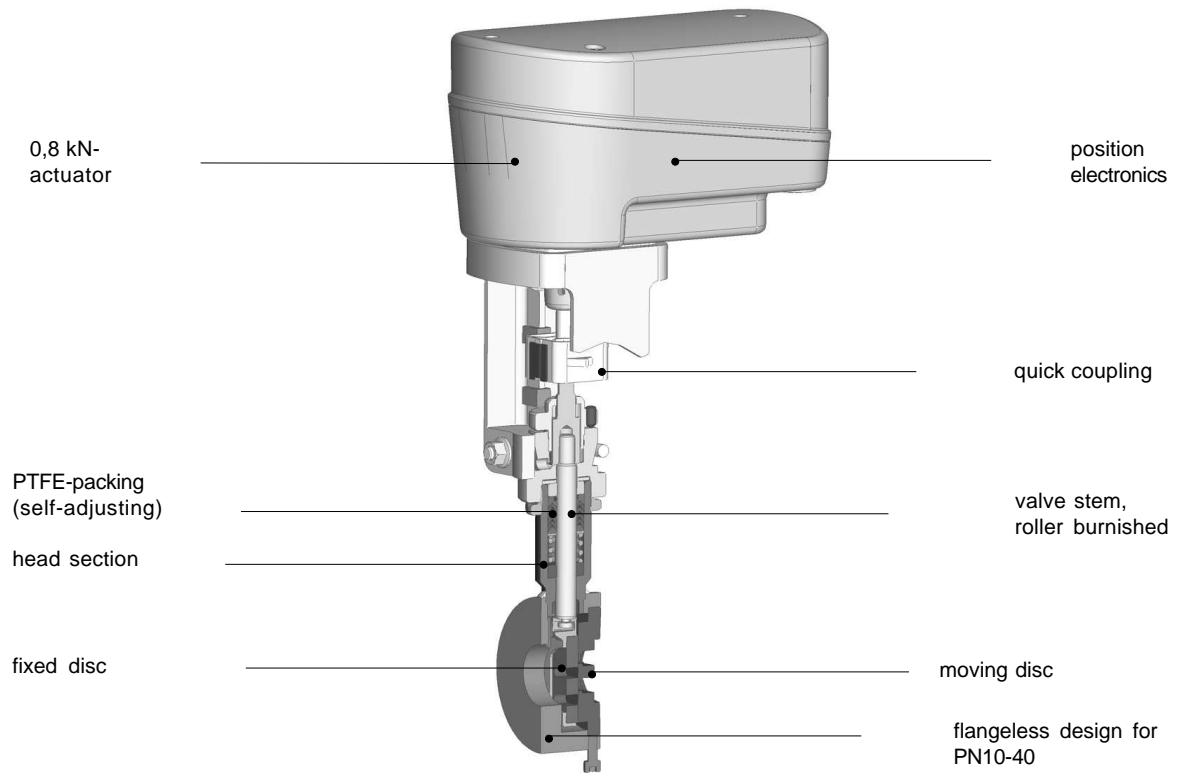
Design	Flangeless design Dimensions acc. DIN EN 558-1 series 20 for flanges acc. DIN EN 1092-1 form B	
Nominal size	DN 15 up to DN 50	
Nominal pressure	PN 40 acc. DIN 2401 also for flanges PN 10 up to PN 25	
Fluid temperature	Body 1.0570: -10 up to +230°C Body 1.4571: -60 up to +230°C	
Rangeability	30 : 1	
Leakage rate (% of Kvs)	Unit carbon-stainless steel < 0,0001	STN2-unit < 0,001

K_{vs}-values see data sheet 8001.

Technical Information Motor Actuator

Type of motor	BM24C	BM24C/I	BM24C/IOS2	BM250C/IO2	BM24	BM115	BM230
Function	Control	Control	Control	Control	On/Off	On/Off	On/Off
Nominal voltage	24 V AC/DC	24 V AC/DC	20-30V AC 20-45V DC	85-250V AC 120-250V DC	24 V AC/DC	115V AC	230 V AC
Set point	2 - 10 V	4 - 20 mA	4 - 20 mA	4 - 20 mA	3-step	3-step	3-step
Load	100 kOhm	500 Ohm	500 Ohm	500 Ohm	-	-	-
Position feedback	2 - 10 V	2 - 10 V	4 - 20 mA	4 - 20 mA	-	-	-
external load	-	-	< 700 Ohm	< 700 Ohm	-	-	-
limit switches	-	-	2 x	2 x	-	-	-
max. switching load	-	-	24V AC/DC 70mA	24V AC/DC 70mA	-	-	-
Power consumption	3 W	3 W	3 W	4 W	3 W	6 W	6 W
Stroking time (standard)	3,50 s/mm	3,50 s/mm	3,50 s/mm	3,50 s/mm	7,5 s/mm	7,5 s/mm	7,5 s/mm
Thrust	800 N						
Class of protection	IP 65						
Ambient temperature	-10°C up to +60°C						

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Admissible Differential Pressure

Nominal Size	maximum differential pressure [bar]					
	DN15	DN20	DN25	DN32	DN40	DN50
Unit carbon-stainless steel	40	40	40	40	30	20
STN 2-unit	40	37	28	20	14	8,5

Materials

Body	Carbon steel 1.0570 /1.0619	Stainless steel 1.4571 /1.4581
Head section	Carbon steel 1.0570 /1.0619	Stainless steel 1.4571 /1.4581
Packing	PTFE (carbon filled), spring 1.4310	
Actuating stem	Stainless steel, roller burnished	
Fixed plate	Stainless steel 1.4571, plated	STN2-disc
Sliding disc	Standard: special carbon material	STN2-disc
Coupling ring for discs	Stainless steel 1.4581	

Stroking times

Stroking times for control actuators in sec.		
Setting	DN 15 - DN 40	DN 50
1,75 s/mm	11	14
3,5 s/mm	22*	29*
7,0s/mm	44	58
14,0 s/mm	88	116

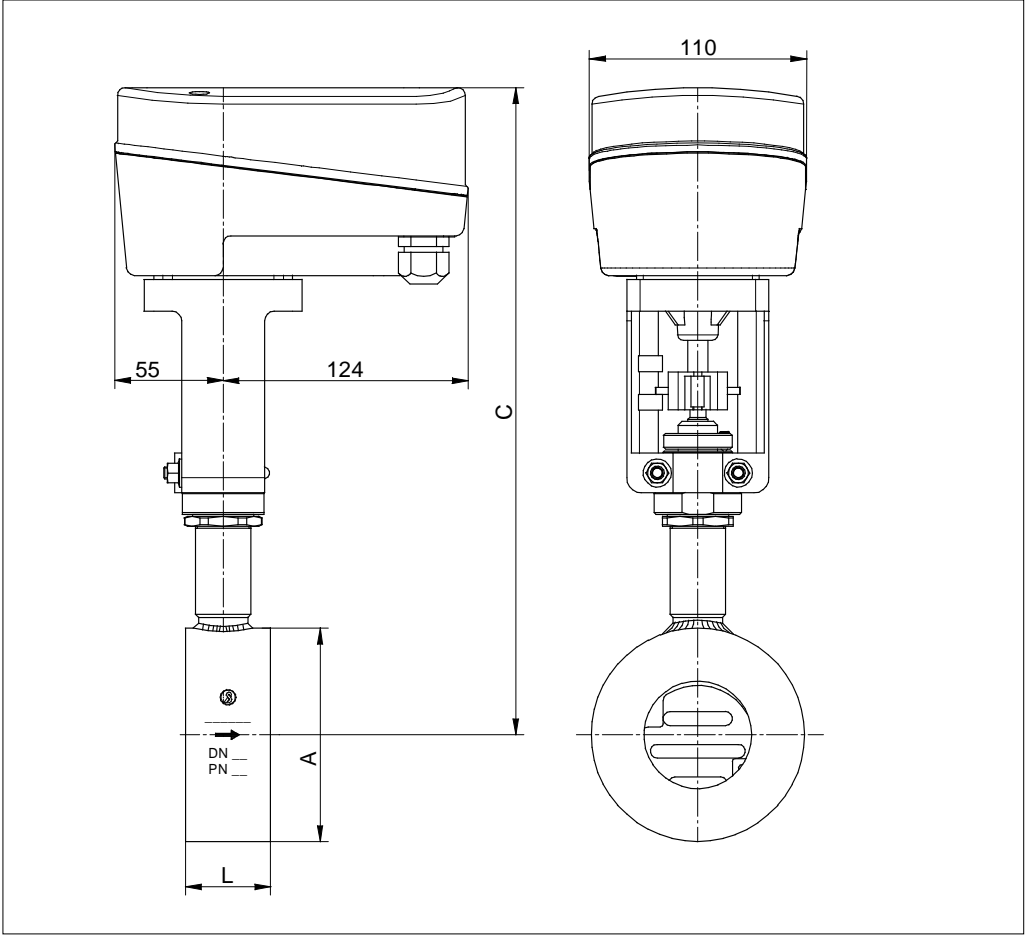
Stroking times for on/off actuators in sec.		
Setting	DN 15 - DN 40	DN 50
7,5 s/ mm	47*	62*
4,5 s/ mm	28	37

*Standard

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Dimensions and Weights



DN	A	C	L	Stroke	Weight kg
15	53	300	33	6	2,6
20	62	305	33	6	2,7
25	72	310	33	6	2,8
32	82	315	33	6	2,8
40	92	320	33	6	3
50	108	330	43	8	4,1

Dimensions in mm

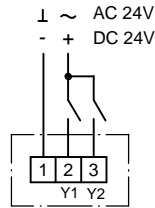
Schematic Wiring Diagrams

On/Off-Actuators

Actuator: BM24

24V AC/DC

3-step drive

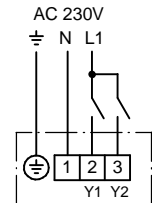


Actuator: BM230, BM115

230V 50/60 Hz

115V 50/60 Hz

3-step drive



Control Actuators

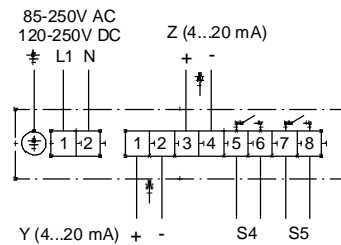
Actuator: BM250C/IOS2, BM230C/IOS2-R

85-250V AC 120-250V DC

input signal 4-20mA

feedback signal 4-20mA

2 limit switches

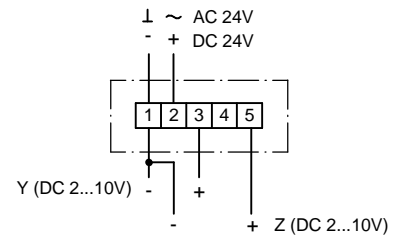


Actuator: BM24C, BM24C-R

24V AC/DC

input signal 2-10V

feedback signal 2-10V

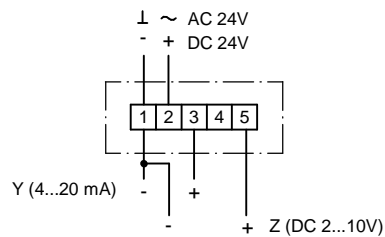


Actuator: BM24C/I, BM24C/I-R

24V AC/DC

input signal 4-20mA

feedback signal 2-10V



Actuator: BM24C/IOS2

20-30V AC 20-45V DC

input signal 4-20mA

feedback signal 4-20mA

2 limit switches

