

Motor Valve compact GS 3 series

8230-GS3 1/2" up to 2"



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"



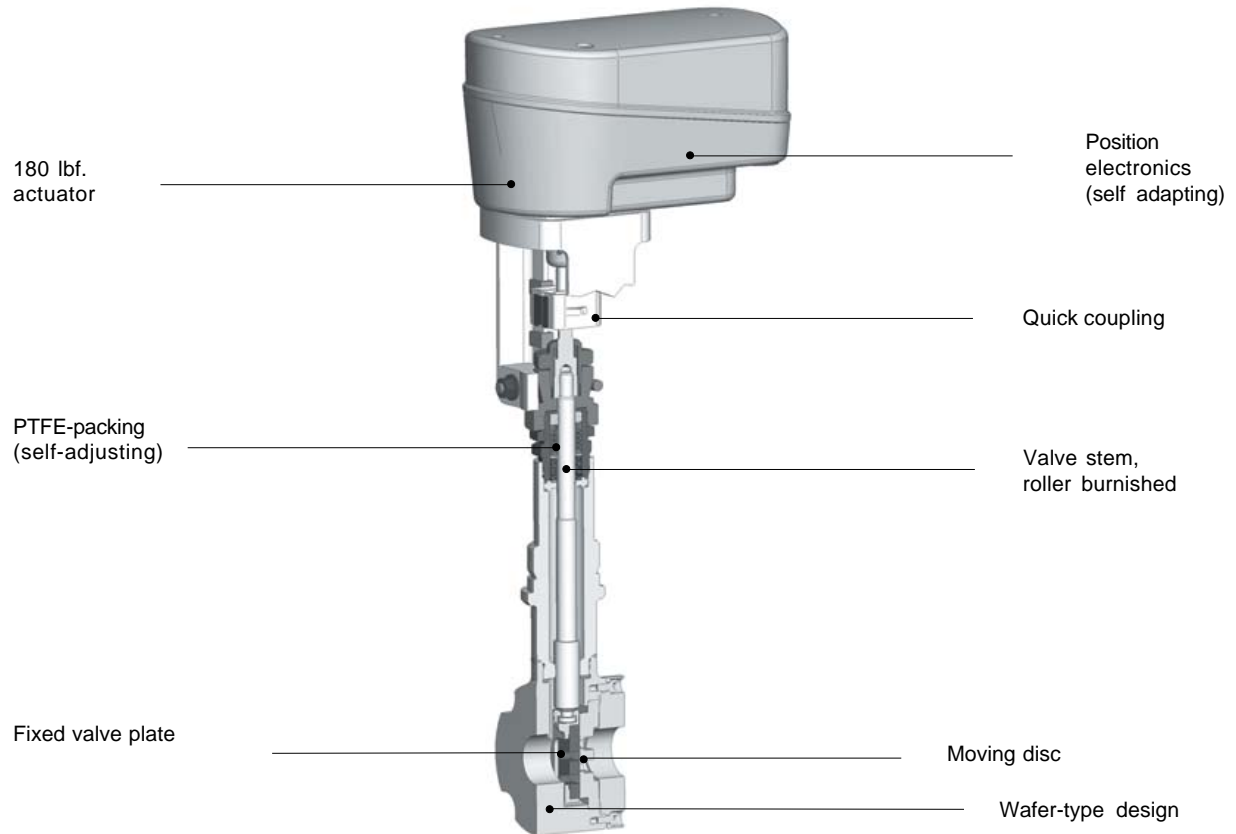
Technical Information Valve

Design	ANSI flange wafer (self-aligning)	
Nominal size	1/2" up to 2"	
Nominal pressure acc. DIN 2401	580 psi (fits also to 145-365 psi)	
Nominal pressure acc. ANSI	ANSI 150	
	ANSI 300	
Media temperature	Carbon steel body	14°F up to +572°F
	Stainless steel body	-76°F up to +662°F
Leakage (% of Cv)	Carbon, FUJY	STN 2
	< 0,0001	< 0,001

Technical Information Motor Actuators

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	115 V 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)	3.5s per 0.04inch	3.5s per 0.04inch	3.5s per 0.04inch	3.5s per 0.04inch	190 s/inch	190 s/inch	190 s/inch
Thrust	800 N						
Class of protection	IP 65						
Ambient temperature	14°F up to +140°F						

Motor Valve compact 8230-GS3



Admissible Pressures

Nominal size	p max [psi]					
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Unit carbon-stainless steel	580	580	580	580	435	290
STN2 Unit	580	537	406	290	203	123

Materials

Body	Carbon steel ASTM A572, A216	Stainless steel 316Ti /318
Head section	Carbon steel ASTM A572, A216	Stainless steel 316Ti /318
Packing	PTFE, carbon filled (spring SST 301)	
Valve stem	Stainless steel 316Ti, roller burnished	
Bellows	Stainless steel 316Ti	
Fixed disc	Stainless steel 316Ti, Stellite	
Sliding disc	Carbon material, FUY (for Type 8230 1/2" up to 2") SIC (1/2", 1", 1 1/2", 2")	

Motor Stroking Times

Stroking times for control actuators in sec.		
Setting	1/2" - 1 1/2"	2"
1.75 s / 0.04 inch	11	14
3.50 s / 0.04 inch	22*	29*
7.00 s / 0.04 inch	44	58
14.0 s / 0.04 inch	88	116

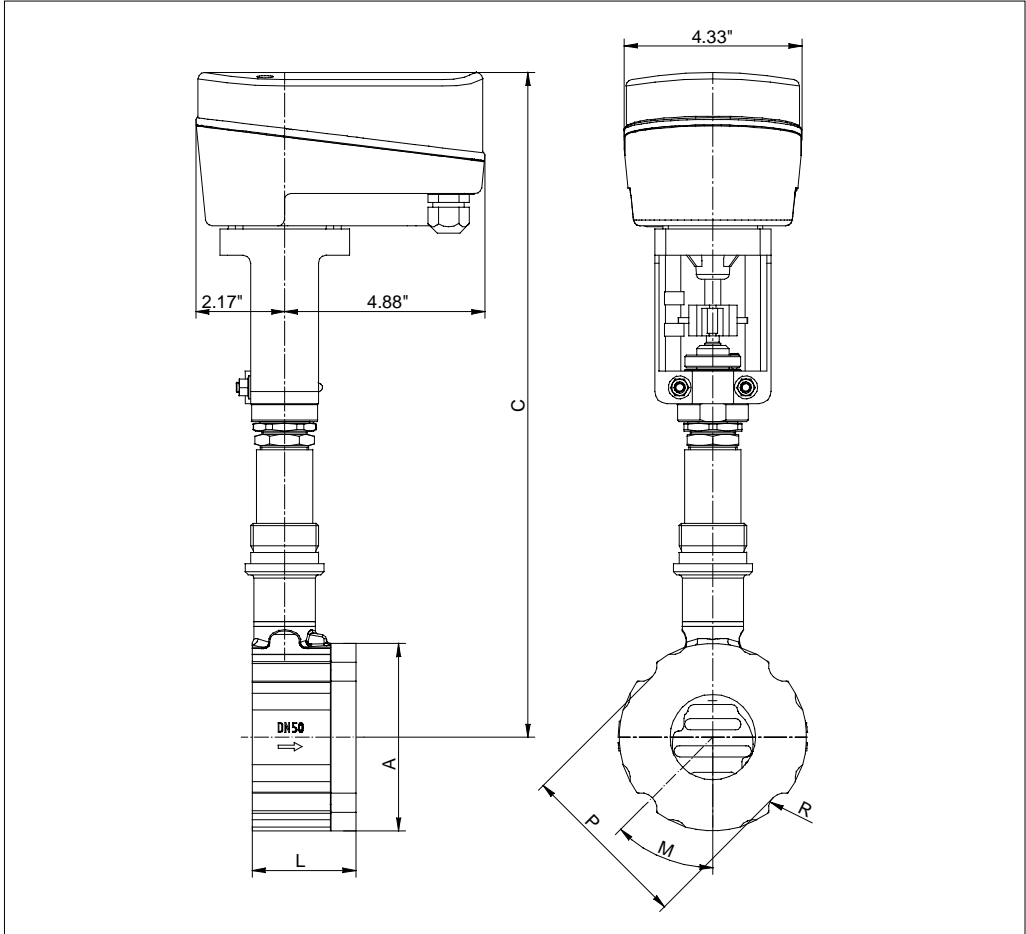
Stroking times for on/off-actuators in sec.		
Setting	1/2" - 1 1/2"	2"
190 s / inch	47*	62*
114 s / inch	28	37

*Standard

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Dimensions and Weights



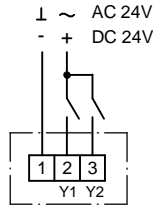
Size	A	C	L	Stroke	Weight lb.
1/2"	2.52	15.16	2.2	0.24	8.4
3/4"	2.83	15.35	2.2	0.24	8.8
1"	3.23	15.55	2.2	0.24	9.5
1 1/4"	3.39	15.75	2.2	0.24	9.9
1 1/2"	3.9	15.94	2.2	0.24	10.6
2"	4.57	16.34	2.52	0.31	13.9

Dimensions in inch

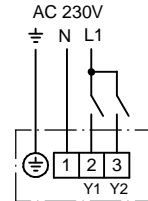
Motor Valve compact 8230-GS3 Schematic Wiring Diagrams

On/Off-Actuators

Actuator: BM24
 24V AC/DC
 3-step drive

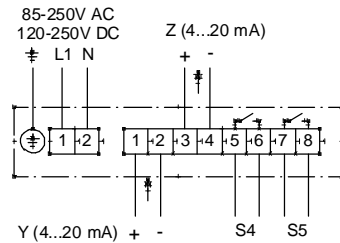


Actuator: BM230, BM115
 230V 50/60 Hz
 115V 50/60 Hz
 3-step drive

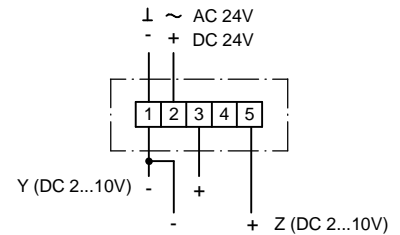


Control Actuators

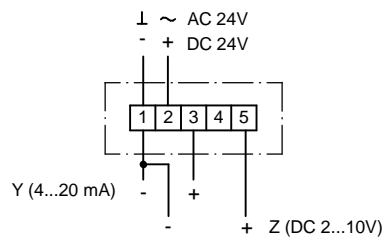
Actuator: BM250C/IOS2, BM250C/IOS2-R
 85-250V AC 120-250V DC
 input signal 4-20mA
 feedback signal 4-20mA
 2 limit switches



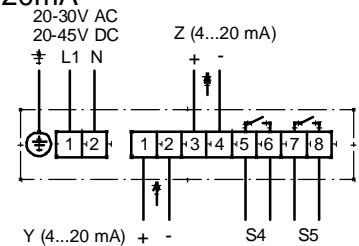
Actuator: BM24C, BM24C-R
 24V AC/DC
 input signal 2-10V
 feedback signal 2-10V



Actuator: BM24C/I, BM24C/I-R
 24V AC/DC
 input signal 4-20mA
 feedback signal 2-10V



Actuator: BM24C/IOS, BM24C/IOS-R
 24V AC/DC
 input signal 4-20mA
 feedback signal 4-20mA
 2 limit switches



BM.....-R: version with safety position
 Y: signal, Z: feedback signal

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Flow Coefficients - Cv-Values



Ordering code		-	A	1	B	6	2	7	C	3	4	8	5	9
DN	Charact.	100 %	63 %	40 %	25 %	20%	16 %	12 %	10 %	6,3 %	2,5 %	2 %	1 %	0,4%
1/2"	(mod.) linear	4.6	3	2	1.6	-	0.82	0.57	0.51	0.3	0.16	-	0.05	-
	eq. perc.	2	-	1.3	-	-	-	-	-	0.12	-	-	-	-
3/4"	(mod.) lin.	7.4	-	-	-	-	1.16	-	-	-	-	0.15	-	-
	eq. perc.	3.5	-	-	-	-	-	-	-	-	-	-	-	-
1"	(mod.) linear	13	7.4	4.6	-	-	1.9	-	1.08	0.72	-	-	-	0.05
	eq. perc.	5.8	-	2.8	-	1.3	-	-	-	-	-	-	-	-
1 1/4"	(mod.) linear	19	12	-	-	-								
	eq. perc.	9.3	-	-	-	-								
1 1/2"	(mod.) lin.	30	19	13	8.1	-								
	eq. perc.	13	9.9	-	3.2	-								
2"	(mod.) linear	52	32	23	14	12								
	eq. perc.	22	14	-	-	-								

Text and pictures are not binding. We reserve the right, to alter the equipment.