

Right Angle Seat Motor Valve compact

7250

SCHUBERT & SALZER
**CONTROL
SYSTEMS**

DN 15 up to DN 50

Motor valve for on/off- and modulating operation for neutral and aggressive media.

- Compact design
- Self adaption
- Unaffected by lightly contaminated media
- For operating temperatures from -30°C up to +200°C
- Working pressure up to 40 bar
- Versatile actuator options
- Actuators with control function also available with spring return



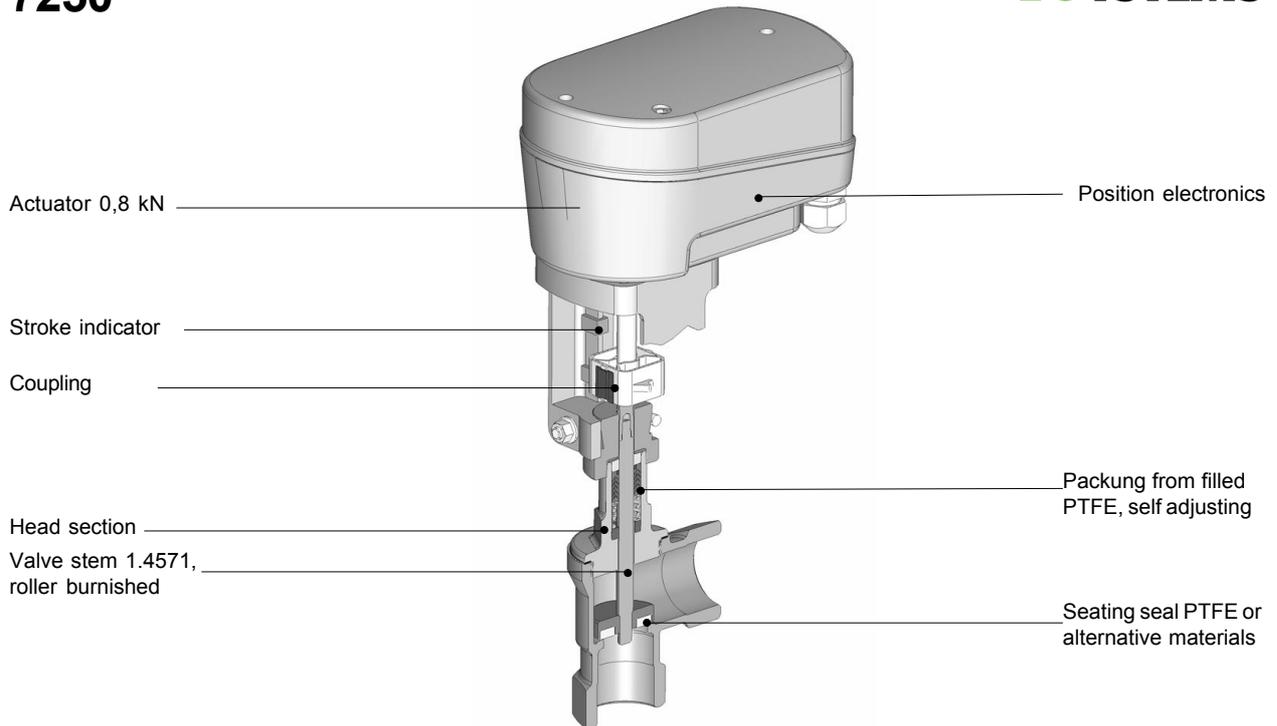
Technical Information Valve

Body materials	Stainless steel
Nominal sizes	DN 15 up to DN 50
Connections: Pipe threads acc. DIN 2999	DN15 - DN 50
NPT thread	DN15 - DN 50
Nominal pressure	PN 40
Max. fluid temperature	-30°C up to +200°C
Viscosity	max. 600 mm ² /s (600 cSt)
Vacuum	max. 0,001 bar, abs.
Operating pressure packing underneath	max. 12 bar

Technical Information Motor Actuator

Type of motor	BM24C	BM24C/I	BM24C/IOS	BM115C/IOS	BM230C/IOS	BM24	BM115	BM230
Function	Control	Control	Control	Control	Control	On/Off	On/Off	On/Off
Nominal voltage	24 V AC/DC	24 V AC/DC	24 V AC/DC	115 V AC	230 V AC	24 V AC/DC	115V AC	230 V AC
Set point	2 - 10 V	4 - 20 mA	3-step	3-step	3-step			
Load	100 kOhm	500 Ohm	500 Ohm	500 Ohm	500 Ohm	-	-	-
Position feedback	2 - 10 V	2 - 10 V	4 - 20 mA	4 - 20 mA	4 - 20 mA	-	-	-
external load	-	-	< 700 Ohm	< 700 Ohm	< 700 Ohm	-	-	-
limit switches	-	-	2 x	2 x	2 x	-	-	-
max. switching load	-	-	230V/130mA	230V/130mA	230V/130mA	-	-	-
Power consumption	3 W	3 W	3 W	4 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	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 Pressures

Nominal size	p max (bar)											
	DN15		DN20		DN25		DN32		DN40		DN50	
	On/off	Control	On/off	Control	On/off	Control	On/off	Control	On/off	Control	On/off	Control
Stainless steel body	40	16	20	16	12	12	7	7	4,8	4,8	2,8	2,8

K_{vs}-Values

Characteristic	linear						equal percentage					
	15	20	25	32	40	50	15	20	25	32	40	50
100 %	3,8	8,8	14	20	27	37	3	6	10	16	25	-
40 %	1,5	3,5	5,8	8	11	-	1,2	2,4	4	6	10	-
25 %	0,93	2,2	3,6	-	-	-	0,80	1,5	2,6	-	-	-
15%	-	-	-	-	-	-	0,46	-	-	-	-	-
10%	0,4	-	-	-	-	-	-	-	-	-	-	-
7,5%	-	-	-	-	-	-	0,23	-	-	-	-	-
On-Off	3,5	9	17	28	35	45						

Optional Adjustments

	Control actuator	On-Off actuator
Stroking times	1,75 s/mm - 14,0 s/mm	7,5 / 4,5 s/mm
Sense of action	direct / reverse	-
Control signal	Starting point: 0,5-30 V / 1-60 mA Ending point: 2,5-32V / 3-64mA	-
Feedback	Starting point: 0,5-8 V / 1-16 mA Ending point: 1,5-10V / 3-20mA	-
Limit switches	0 - 100% stroke (adjustable)	-

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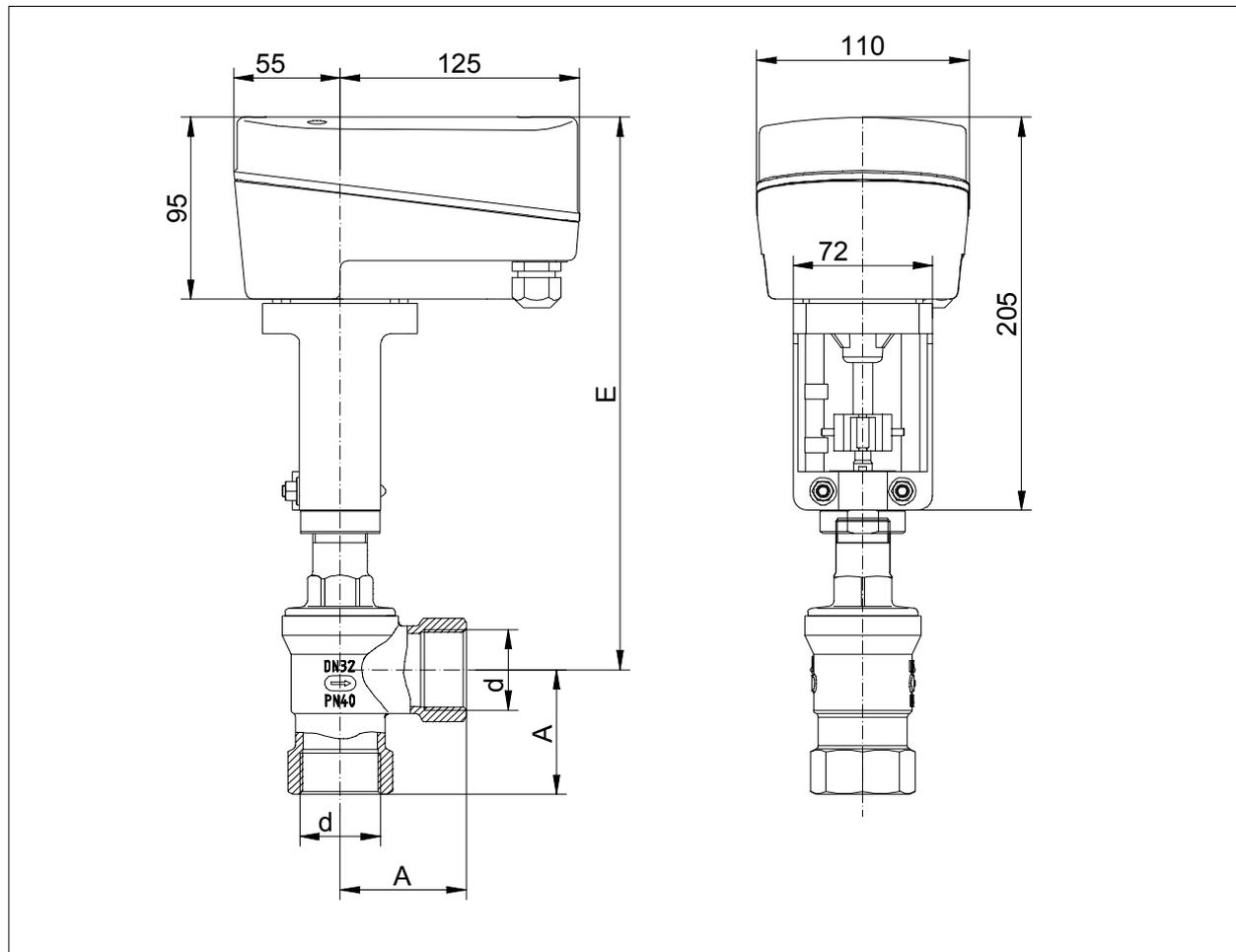
Ordering Number System

		Article number											
		7250/			K							S	
Nominal size:													
DN 15		015											
DN 20		020											
DN 25		025											
DN 32		032											
DN 40		040											
DN 50		050											
Item:													
Valve		V											
Upper part		U											
Actuator		A											
Body design:													
Right angled body valve					7								
Connection:													
Whitw orth-thread					0								
NPT thread					5								
w ithout thread					6								
Body material:													
Stainless steel					2								
Seating seal:													
PTFE					0								
FKM (Viton)					1								
EPDM					2								
NBR					3								
Actuator:													
Control actuator BM24C - 24V AC/DC - Position control 2-10V - Feedback 2-10V					1								
Control actuator BM24C/I - 24V AC/DC - Position control 4-20mA - Feedback 2-10V					2								
Control actuator BM24C/IOS - 24V AC/DC - Position control 4-20mA - Feedback 4-20mA - 2 Limit sw itches					3								
Control actuator BM115C/IOS - 115V AC - Position control 4-20mA - Feedback 4-20mA - 2 Limit sw itches					4								
Control actuator BM230C/IOS - 230V AC - Position control 4-20mA - Feedback 4-20mA - 2 Limit sw itches					5								
On-Off actuator BM24 - 24V AC/DC					6								
On-Off actuator BM230 - 230V AC					7								
On-Off actuator BM115 - 115V AC					8								
Control plug:													
none					-								
linear 100%					1								
equal percentage 100%					2								
linear 40%					3								
equal percentage 40%					4								
linear 25%					5								
equal percentage 25%					6								
Safety position:													
w ithout safety position					-								
spring to close					0								
spring to open					1								
Stroking times													
Standard (3,5s/mm for control actuators - 7,5 s/mm for on-off-actuators)					-								
3,75 s/mm (on-off actuators only)					L								
1,75s/mm (control actuators only), w ith safety spring return 3,0s/mm					1								
7,0s/mm (control actuators only)					2								
14,0s/mm (control actuators only)					3								

Ordering example: 7250/025VK702031: Right Angled seat compact motor valve type 7250, DN 25, pipe thread acc. 2999/ISO228, stainless steel body, seating seal PTFE, control actuator 0,8 kN, 24V AC/DC, position electronics 4-20 mA, position feedback 4-20 mA, 2 limit switches, linear characteristic, Kvs-value 14 (100 %).

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Dimensions and Weights



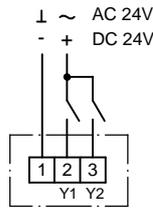
DN	d	A	B	D	E	Stroke	Weight kg
15	1/2"	41	139	62	261,5	9	2
20	3/4"	41	140	62	262,5	14	2,3
25	1"	41	140,5	62	275,5	18	2,4
32	1 1/4"	65	216,5	144	276	21	3
40	1 1/2"	65	160,5	62	279,5	22	3,2
50	2"	65	240	144	296,5	22	3,8

Dimensions in mm

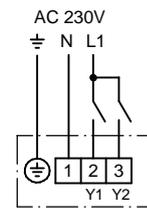
Schematic Wiring Diagrams

On/Off-Actuators

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

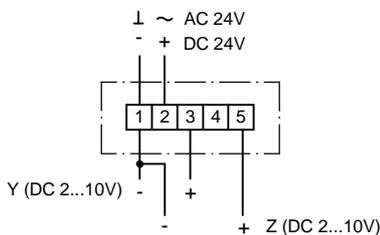


Actuator: BM230, BM115
230V 50/60 Hz
115V 50/60 Hz
3-step drive

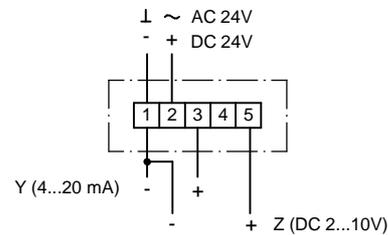


Control Actuators

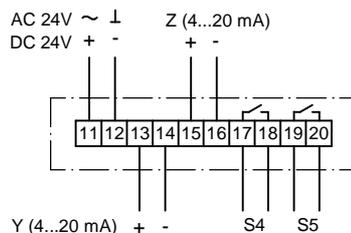
Actuator: BM24C and BM24C-R
24V AC/DC
input signal 2-10V
feedback signal 2-10V



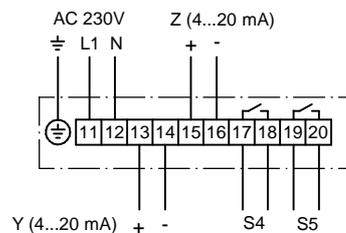
Actuator: BM24C/I and BM24C/I-R
24V AC/DC
input signal 4-20mA
feedback signal 2-10V



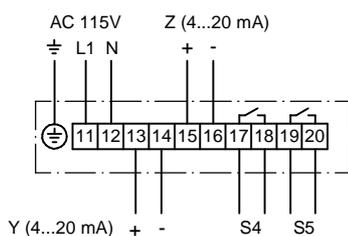
Actuator: BM24C/IOS and BM24C/IOS-R
24V AC/DC
input signal 4-20mA
feedback signal 4-20mA
2 limit switches



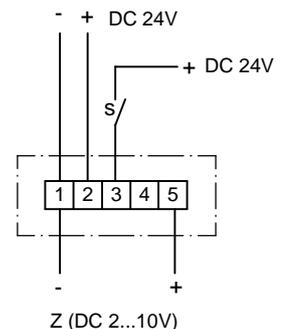
Actuator: BM230C/IOS and BM230C/IOS-R
230V 50/60Hz
input signal 4-20mA
feedback signal 4-20mA
2 limit switches



Actuator: BM115C/IOS and BM115C/IOS-R
115V 50/60Hz
input signal 4-20mA
feedback signal 4-20mA
2 limit switches



Actuator: BM24C and BM24C-R
24V DC
feedback signal 2-10V



BM.....-R: version with safety position

Y: signal, Z: feedback signal

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