

# Angle Seat Motor Valve with Flanges, compact 7231

## DN 15 up to DN80

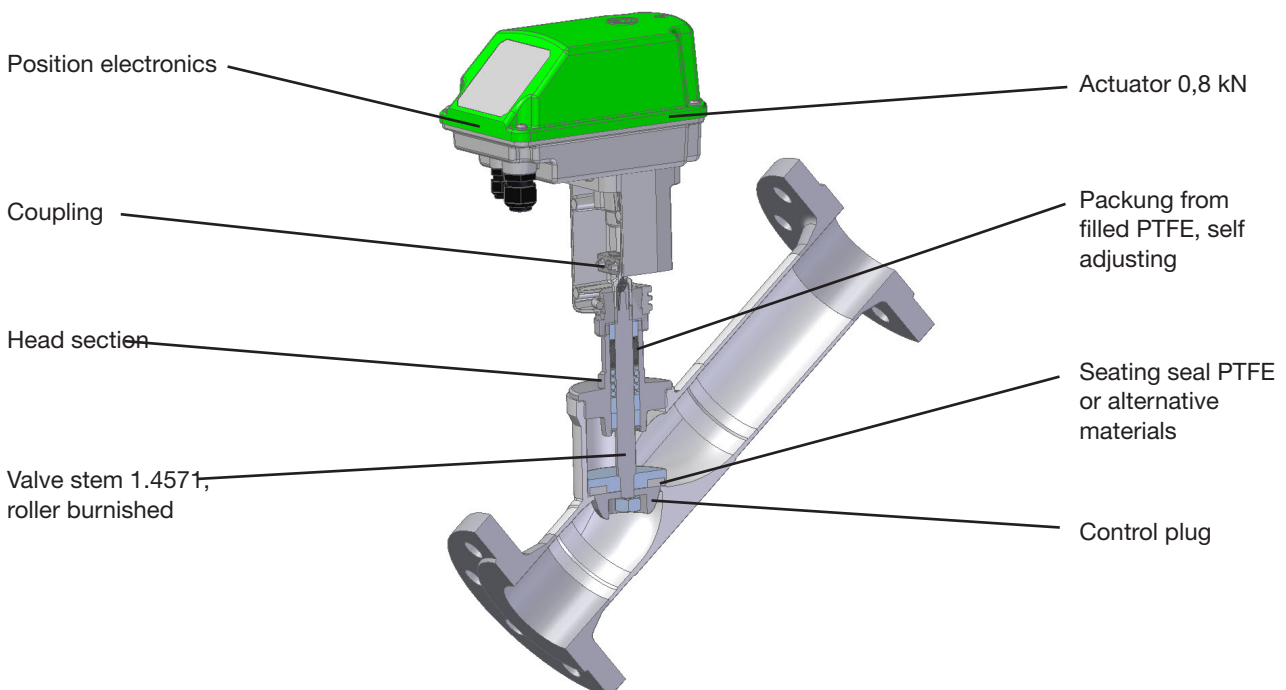
**Motor valve for on/off- and modulating operation for neutral and aggressive media.**

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



### Technical Information Valve

Body material	Stainless steel 1.4408
Nominal size	DN 15 up to DN 65
Connections	flange acc. DIN EN 1092-1 flange acc. ASME B16.5: ANSI #150, ANSI #300
Nominal pressure	PN 40 / ANSI #150 / ANSI #300
Media temperature	-30 °C up to +200 °C
ambient temperature	-10°C up to +60°C
Viscosity of the fluid	max. 600 mm <sup>2</sup> /s (600 cSt)
Vacuum	maximum 0,001 bar abs
Operating pressure packing underneath	max. 12 bar / 175 psig
Packing leakage	tested according to TA-Luft as defined in DIN EN ISO 15848-1 and VDI 2440
Body dimensions	L acc. DIN EN 558-92 (old: DIN 3202-F3)



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## Technical Information CA-Actuator

Function	Control				On/Off	
Motor type	CA24C	CA260C	CA24C-R	CA260C-R	CA24	CA260
Mains connection	24 V AC/ DC	100-240 V AC	24 V AC/ DC	100-240 V AC	24 V AC/DC	100-240 V AC
Set point range	(0)2-10 V / (0)4-20 mA				3-point**	
Mains frequency	50/60 Hz				50/60 Hz	
Feedback	(0)2-10 V / (0)4-20 mA				optional	
Dead band	±0.6 % of the entire stroke				-	
Repeatability	±0.3 % of the entire stroke				-	
Limit switch	2				optional	
Potentiometer feedback	-				optional	
Max. switching capacity	24 V AC/DC 200 mA				250 V AC/DC 1 A	
Actuating speed	1.5 / 2 / 3 s/mm (Standard: 2 s/mm)				2 or 3 s/mm (Standard: 3 s/mm)	
Safety functions	Monitoring of tensile force, set point, temperature of the electronics, etc.				Tensile force monitoring	

Wiring diagrams of the actuators can be found in the manual.

## Admissible Differential Pressures

Nominal size	p max [bar]									
	DN15		DN20		DN25		DN32		DN40	
	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
Body stainless steel pressure balanced	-	-	-	-	-	-	40	16	25	16

Nominal size	p max [bar]					
	DN50		DN65		DN80	
	On/off	Control	On/off	Control	On/off	Control
Stainless steel body	2,8	2,8	-	-	-	-
Body stainless steel pressure balanced	25	16	16	16	14	14

## Kvs-Values (Stroke)

Characteristic DN	linear								equal percentage							
	15	20	25	32	40	50	65	80	15	20	25	32	40	50	65	80
100 %	3,8 (9,2)	8,8 (15,2)	14 (18,2)	20 (21,2)	27 (21,2)	39 (21,2)	42 (20)	54 (20)	3 (9,2)	6 (11,2)	10 (18,2)	16 (21,2)	25 (21,2)	31 (21,2)	33 (20)	43 (20,7)
63%	-	-	-	-	-	24 (21,2)	26 (21,2)	-	-	-	-	-	-	17 (21,2)	19 (20)	-
40 %	1,5 (9,2)	3,5 (7,2)	5,8 (10,2)	8 (11,2)	11 (11,2)	-	-	-	1,2 (9,2)	2,4 (7,2)	4 (11,2)	6 (13,2)	10 (14,2)	-	-	-
25 %	0,93 (9,2)	2,2 (7,2)	3,6 (10,2)	-	-	-	-	-	0,8 (9,2)	1,5 (7,2)	2,6 (11,2)	-	-	-	-	-
15%	-	-	-	-	-	-	-	-	0,46 (9,2)	-	-	-	-	-	-	-
10%	0,4 (9,2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7,5%	-	-	-	-	-	-	-	-	0,23 (9,2)	-	-	-	-	-	-	-
On-Off	3,8 (9,2)	9 (15,2)	17 (18,2)	28 (21,2)	35 (21,2)	51 (21,2)	62 (20)	74 (20)								

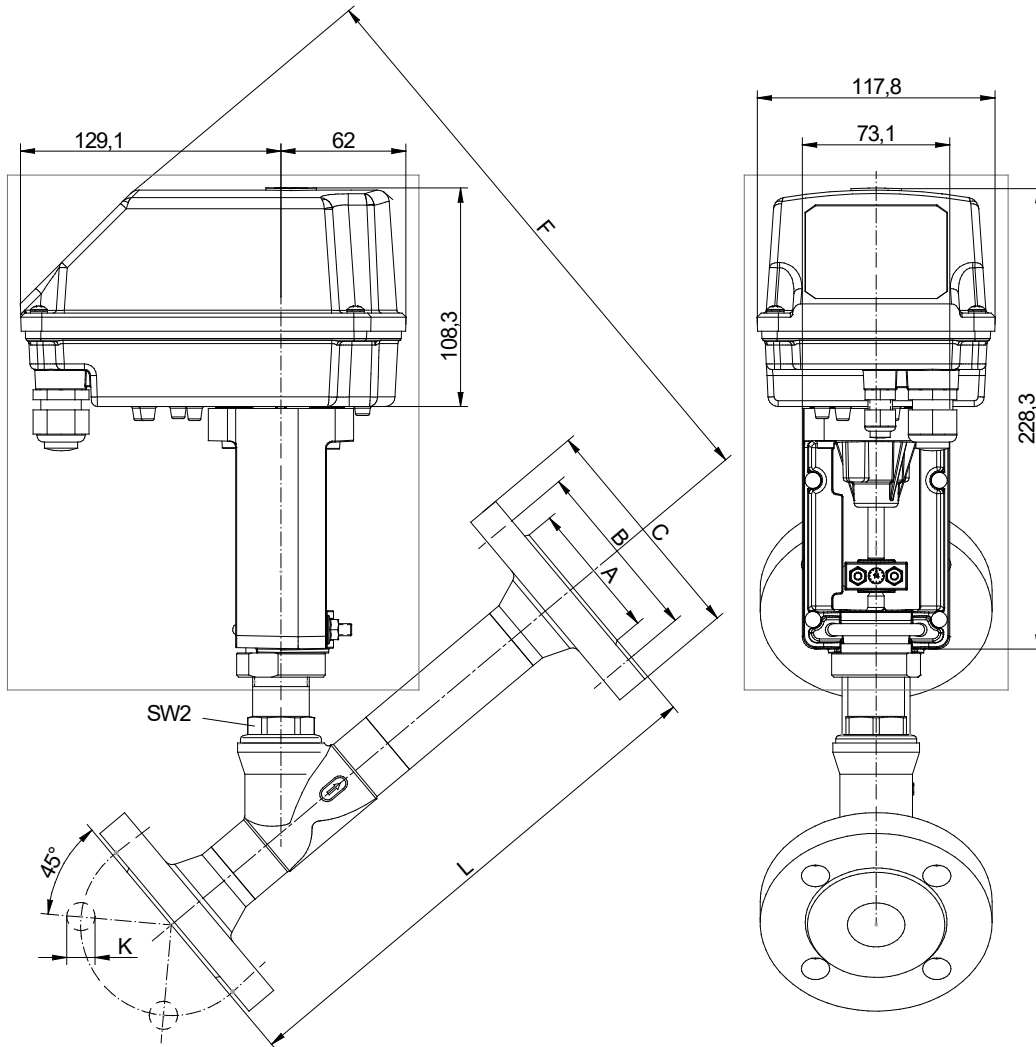
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## Ordering Number System

Article number																		
7231																		
Nominal size:																		
DN 15	015																	
DN 20	020																	
DN 25	025																	
DN 32	032																	
DN 40	040																	
DN 50	050																	
DN 65	065																	
DN 80	080																	
Item:																		
Valve	V																	
lower valve part	U																	
Actuator	A																	
seal kit	R																	
head piece (head section cpl. without motor)	K																	
valve upper part (head section cpl. with motor)	H																	
Motor actuator design:																		
compact actuator	K																	
Design:																		
flange bodied valve	2																	
Connection:																		
Angle Seat Flanged Valve acc. DIN EN 1092-1, installation lenght acc. DIN 3202 F3	9																	
angle seat flange bodied valve acc. ANSI 150	C																	
Body material:																		
stainless steel	2																	
Seating seal:																		
PTFE	0																	
FKM (Viton)	1																	
EPDM	2																	
NBR	3																	
PTFE with 25 % glass fibre	5																	
Actuator:																		
Control actuator CA24C, 24 V AC/DC, with pos. electronic, stanard adjustm.: control sig. 4-20 mA, feedback 4-20 mA, 2 limit switch	C																	
Control Actuator CA260C, 100-240 V 50/60 Hz, with pos. electronic, Standard adjustm. 4-20 mA, feedb. 4-20 mA, 2 limit switch	D																	
On-Of (3-point) actuator CA24, 24 V AC/DC	E																	
On-Off (3-point) actuator CA260, 100-240 V, 50/60 Hz	F																	
Control plug:																		
without	-																	
linear 100 %	1																	
equal percentage 100 %	2																	
linear 40 %	3																	
equal percentage 40 %	4																	
linear 25 %	5																	
equal percentage 25 %	6																	
control plug 15 % equal percentage	7																	
control plug 7.5 % equal percentage (1 GPM)	8																	
control plug 10 % linear	9																	
Safety versions:																		
see following positions	S																	
test valve (nonstandard file)	V																	
Lower part and console of the actuator KTL-coated	K																	
Safety position:																		
without safety position	-																	
Fail-Safe: normally closed at power failure	2																	
Fail-Safe: normaly open at power failure	3																	
Fail Safe: position acc. customer request	4																	
Stroking times:																		
Standard	-																	
3 s/mm	4																	
1,5 s/mm	5																	
4,5 s/mm	L																	

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## Dimensions and Weights for CA-actuators



DN	PN40					ANSI150					L	F	SW2	F	SW2
	A	B	C	K	N number of bores	A	B	C	K	N number of bores					
15	45	65	95	14	4	35	61	89	16	4	230	283	30	-	-
20	58	75	105	14	4	43	70	99	16	4	260	287	30	-	-
25	68	85	115	14	4	51	79	108	16	4	260	291	30	-	-
32	78	100	140	18	4	64	89	117	16	4	300	306	30	324	41
40	88	110	150	18	4	73	99	127	16	4	300	311	30	332	46
50	102	125	165	18	4	92	121	152	19	4	350	318	32	342	52
65	122	145	185	18	8	107	140	178	19	4	400	340	41	359	36
80	138	160	200	18	8	127	152	191	19	4	450	388	46	388	46

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