

Angle Seat Motor Valve compact 7210

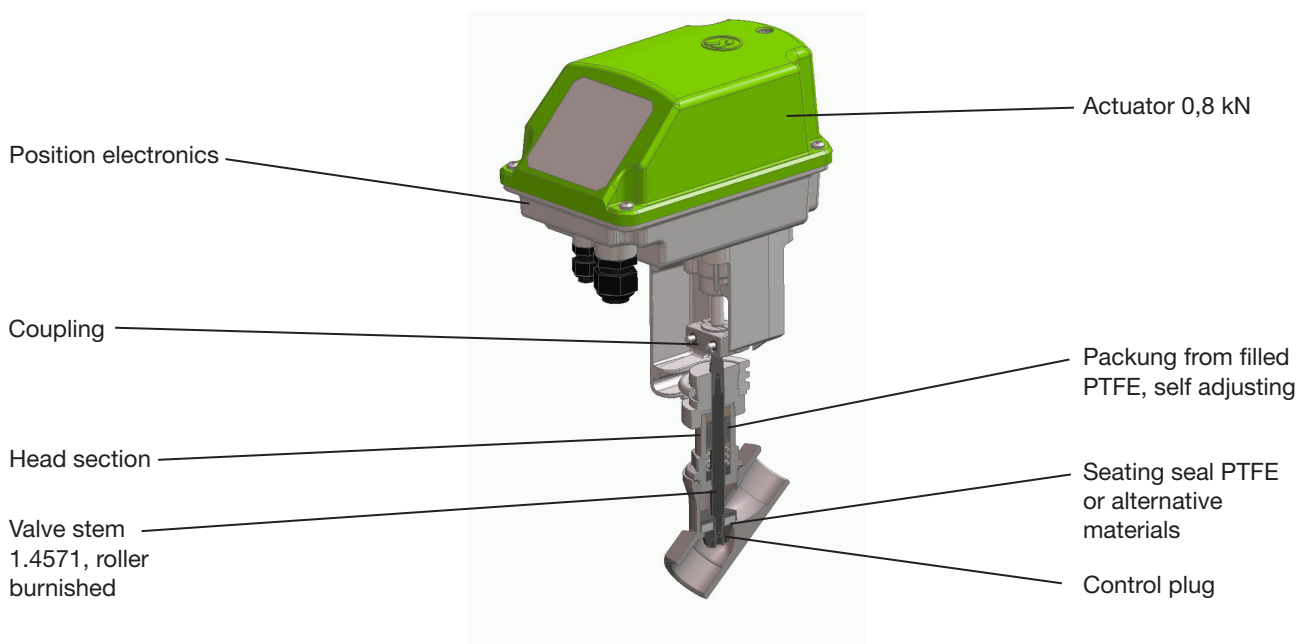
DN 8 up to DN 80

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

- Compact design
- Self calibration
- Unaffected by lightly contaminated media
- For operating temperatures from -50 °C up to +220 °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	Bronze CC491K
Nominal size	DN 8 up to DN 80 1/4" up to 3"	DN 15 up to DN 50 1/2" up to 2"
Connections:		
Pipe threads acc. ISO 228-1	DN 8 - 80 / 1/4"-3"	DN 15 - 50 / 1/2"-2"
NPT thread	DN 8 - 80 / 1/4"-3"	DN 15 - 50 / 1/2"-2"
Welding ends	DN15 - 80 / 1/2"-3"	-
Clamp connections	DN15 - 80 / 1/2"-3"	-
Nominal pressure	PN 40	PN 16
Max. fluid temperature	-30 °C up to 200 °C, opt -50 °C up to +220 °C	
Viscosity	max. 600 mm ² /s (600 cSt)	
Vacuum	max. 0,001 bar,abs. / 0,015 psia	
Operating pressure packing underneath	max. 12 bar / 174 psi	
Working pressure for Tri-Clamp connection	max. 16 bar / 235 psi	
Packing leakage	tested according to TA-Luft as defined in DIN EN ISO 15848-1 and VDI 2440	



DN 8 up to DN 80

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	
Diagnostic functions	Storage of motor and total operating time, temperature and directional classes, etc.				-	
Fail Safe position	-				freely adjustable	
Load	500 Ω for current set point / 95 kΩ for voltage set point				-	
Max. power consumption	13 W	12 W	13 W	12 W	13 W	12 W
Input heating resistor	10 W					
Starting current	6 A	2,5 A	6 A	2,5 A	6 A	2,5 A
Actuating power	800 N					
Protection class (EN 60529)	IP 65***					
Adm. Ambient temperature	-10 °C to +60 °C					
Duty cycle	Storage of motor and total operating time, temperature and directional classes, etc.					

*: for control with volt-signal split range adjustments are possible

** Minimum on-time 200 ms

*** Dustproof, protection against water jets from any angle

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

Admissible Differential Pressures

Nominal size	p max [bar]									
	DN8		DN15		DN20		DN25		DN32	
	On/off	Control	On/off	Control	On/off	Control	On/off	Control	On/off	Control
Stainless steel body	-	17	40	17	20	17	12	12	7	7
Bronze body	-	-	16	16	16	16	12	12	7	7
Body stainless steel pressure balanced	-	-	-	-	-	-	-	-	40	17

Nominal size	p max [bar]							
	DN40		DN50		DN65		DN80	
	On/off	Control	On/off	Control	On/off	Control	On/off	Control
Stainless steel body	4,8	4,8	2,8	2,8	-	-	-	-
Bronze body	4,8	4,8	2,8	2,8	-	-	-	-
Body stainless steel pressure balanced	25	17	25	17	17	17	14	14

Kvs-Values (Stroke)

Characteristic	linear										equal percentage								
	8	15	20	25	32	40	50	65	80	8	15	20	25	32	40	50	65	80	
100 %	0,6 (9,0)	3,8 (9,2)	8,8 (15,2)	14 (18,2)	20 (21,2)	27 (21,2)	39 (21,2)	42 (20)	54 (20)	0,6 (9)	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 %	0,24 (9,0)	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 %	0,15 (9,0)	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)	-	-	-	-	-	-	-	-		

* Kvs-values not possible with bronze housing.

Ordering Number System

Article number

7210/		K																		
Nominal size:																				
DN 8 (only with seating seal PEEK)	008																			
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																			
Valve without actuator	U																			
Actuator	A																			
Body design:																				
Angle bodied		1																		
Connection:																				
Whitworth-thread							0													
NPT thread							5													
without thread							6													
Welding ends acc. ISO							H													
Welding ends acc. DIN 11850							D													
Tri-Clamp connection (inch)							Z													
Body material:																				
Bronze							1													
Stainless steel							2													
Seating seal:																				
PTFE							0													
FKM (Viton)							1													
EPDM							2													
NBR							3													
PEEK							7													
PEEK for applications above 160°C [320°F]							8													
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
Special versions																				
See following positions																				S
Pressure balanced version																				P
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
Stroking times:																				
Standard (2 s/mm for control actuators - 3 s/mm for on-off-actuators)																				-
3 s/mm																				4
1,5 s/mm																				5
2 s/mm (On/Off Actuator Type 2032)																				9

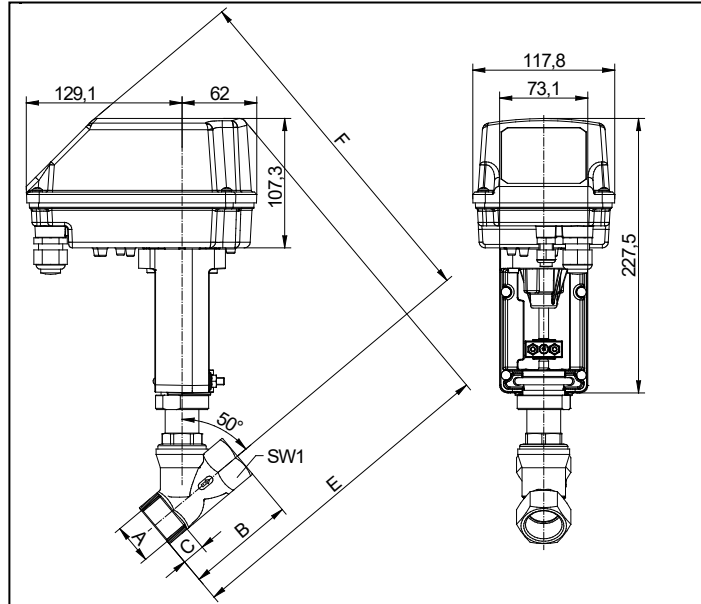
Ordering example:

7210/025VK1020C1

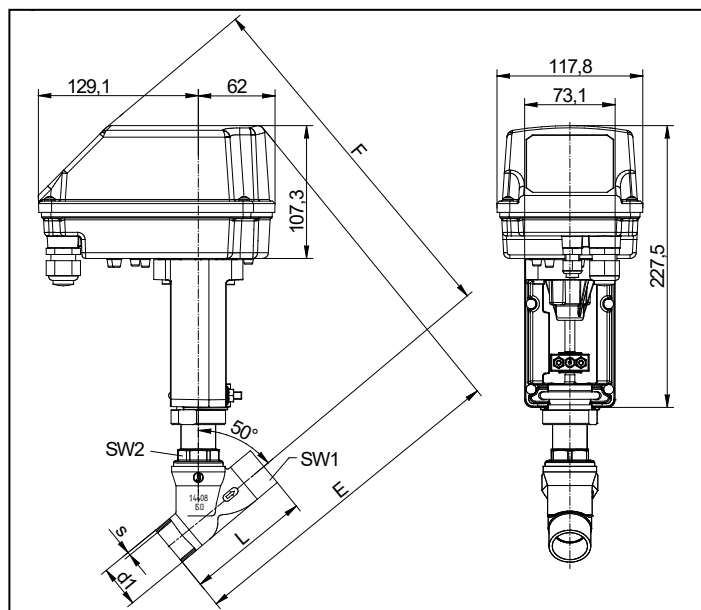
Angle seat motor valve type 7210, DN 25, pipe thread acc. ISO228-1, stainless steel body, seating seal PTFE, control actuator CA24C, 24 V AC/DC, 0,8 kN, position electronics 4-20 mA, position feed back 2-10 V, linear characteristic, Kvs-value 14 (100 %).

Dimensions and Weights for CA-actuators

Body with threaded ends Rp/NPT



Body with welding ends DIN/ISO



DN	A		C		ISO		DIN		B	L	E	F	E	F	SW1	SW2	Stroke	Weight
	G / NPT	G	NPT	d1	s	d1	s	G / NPT										
08	1/4"	12	10,7	-	-	-	-	60	-	258	306	-	-	20	30	8,5	2,3	
15	1/2"	15	14,5	21,3	2	18	1,5	65	80	263	310	-	-	25	30	9	2,4	
20	3/4"	16,3	15	26,9	2,3	22	1,5	75	90	270	310	-	-	31	30	14	2,6	
25	1"	19,1	18	33,7	2,6	28	1,5	90	100	275	314	294	337	39	30	18	2,8	
32	1 1/4"	21,4	18,5	42,4	2,6	34	1,5	110	110	291	330	305	346	48	30	21	3,2	
40	1 1/2"	21,4	18,5	48,3	2,6	40	1,5	120	120	295	334	312	354	55	30	22	3,5	
50	2"	25,7	19	60,3	2,9	52	1,5	150	150	311	341	330	364	68	32	22	4,1	
65	2 1/2"	30,2	25,5	76,1	2,9	70	2	214	180	-	-	353	358	100	41	22	6,1	
80	3"	33,3	27,4	-	-	-	-	214	-	-	-	427	387	100	41	22	8,2	

Other body designs on request

Dimensions in mm