

# 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.**

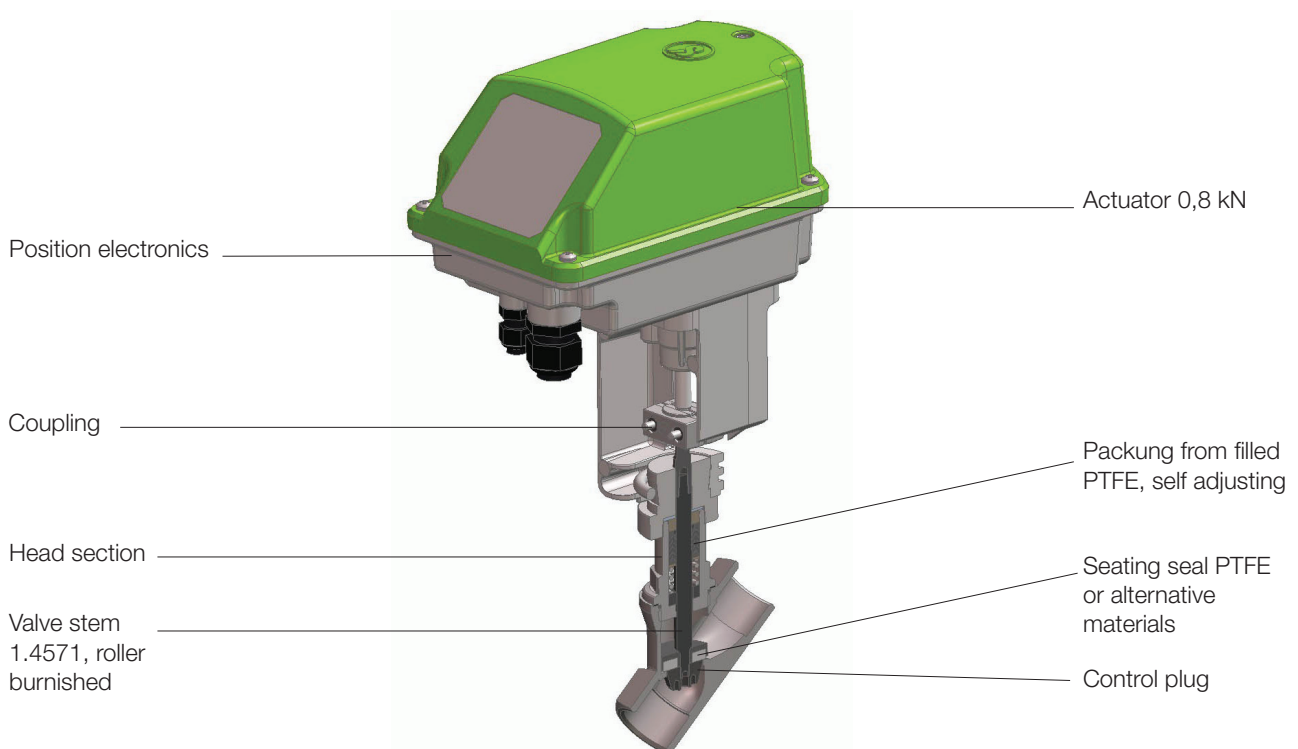
- Compact design
- Self calibration
- Unaffected by lightly contaminated media
- For operating temperatures from -30°C up to +200°C
- Working pressure up to 40 bar
- Versatile actuator options
- Actuators with control function also available with safety position



### Technical Information Valve

Body material	DN 15 - 50: Bronze CC491K DN 65 - 80: Brass CC754S	Stainless steel 1.4408
Nominal size	DN 15 up to DN 80 1/2" up to 2"	DN 8 up to DN 80 1/4" up to 2"
Connections:		
Pipe threads acc. ISO 228-1	DN 15 - 50 / 1/2"-3"	DN 8 - 80 / 1/4"-3"
NPT thread	DN 15 - 50 / 1/2"-3"	DN 8 - 80 / 1/4"-3"
Welding ends	-	DN15 - 65 / 1/2"-2 1/2"
Clamp connections		DN15 - 50 / 1/2"-2"
Nominal pressure	PN 16	PN 40
Max. fluid temperature	-30°C up to 200°C	
Viscosity	max. 600 mm <sup>2</sup> /s (600 cSt)	
Vacuum	max. 0,001 bar,abs. / 0,015 psia	
Operating pressure packing underneath	max. 12 bar / 174 psig	

**Packing tested according to TA-Luft as defined in DIN EN ISO 15848-1 and VDI 2440**



## Technical Information CA-Actuator

Function	Control				On/Off	
	CA24C	CA260C	CA24C-R	CA260C-R	CA24	CA260
Motor type	CA24C	CA260C	CA24C-R	CA260C-R	CA24	CA260
Mains connection	24V AC/DC	90-260V AC	24V AC/DC	90-260V AC	24V AC/DC	90-260V AC
Set point range	(0)2-10V / (0)4-20mA				3-term**	
Feedback	(0)2-10V / (0)4-20mA				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	24V AC/DC 200 mA				250V AC/DC 1A	
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. input	13 W	12 W	13 W	12 W	13 W	12 W
Input heating resistor	10 W					
Starting current heating resistor	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	100%					

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

\*\*: minimum switch on time 200ms

**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	-	16	40	16	20	16	12	12	7	7
Bronze body	-	-	16	-	16	-	12	-	7	-

Body stainless steel pressure balanced	-	-	-	-	-	-	40	16	40	16
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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	-	2,8	-	-	-	-	-

Body stainless steel pressure balanced	25	16	25	16	16	16	14	14
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## Kvs-Values

Characteristic	linear										equal percentage								
	DN	8	15	20	25	32	40	50	65	80	8	15	20	25	32	40	50	65	80
100 %		0,6	3,8	8,8	14	20	27	37	52	69	0,6	3	6	10	16	25	30	38	46
40 %		0,24	1,5	3,5	5,8	8	11	-	45	55	-	1,2	2,4	4	6	10	-	-	-
25 %		0,15	0,93	2,2	3,6	-	-	-	-	-	-	0,8	1,5	2,6	-	-	-	-	-
15%		-	-	-	-	-	-	-	-	-	-	0,46	-	-	-	-	-	-	-
10%		-	0,4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7,5%		-	-	-	-	-	-	-	-	-	-	0,23	-	-	-	-	-	-	-
On-Off		0,95	3,8	9	17	28	35	45	62	85									

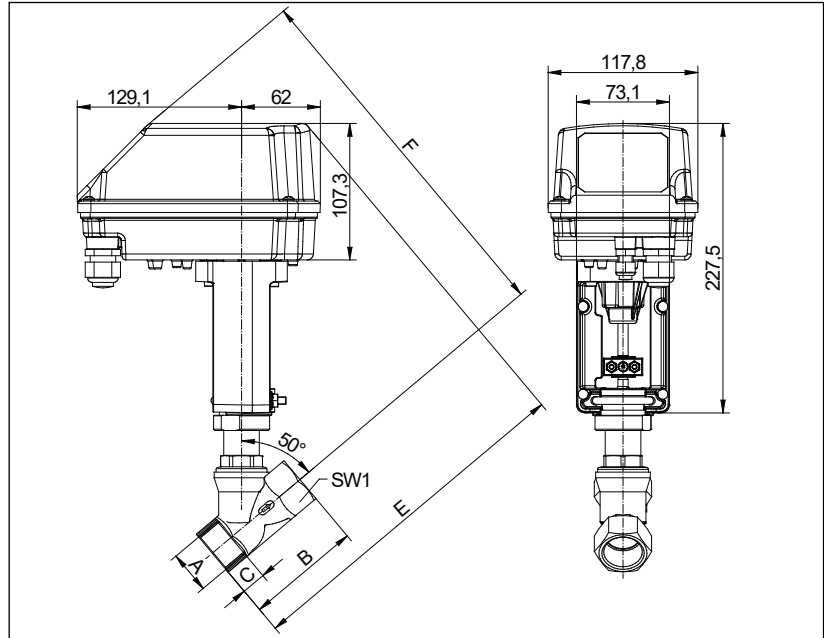
## Ordering Number System

		Article number									
		7210/		K						S	
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									
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					
Body material:											
Bronze							1				
Stainless steel							2				
Seating seal:											
PTFE								0			
FKM (Viton)								1			
EPDM								2			
NBR								3			
PEEK								7			
Actuator:											
Control actuator CA24C, 24V AC/DC, with pos. electronic, stanard adjustm.: control sig. 4-20mA, feedback 4-20mA, 2 limit switch									C		
Control Actuator CA260C, 90-260V 50/60Hz, with pos. electronic, Standard adjustm. 4-20mA, feedb. 4-20mA, 2 limit switch									D		
On-Of (3-point) actuator CA24, 24V AC/DC									E		
On-Of (3-point) actuator CA260, 90-260V, 50/60Hz									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	
Safety position:											
without safety position											-
spring to close											0
spring to open											1
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

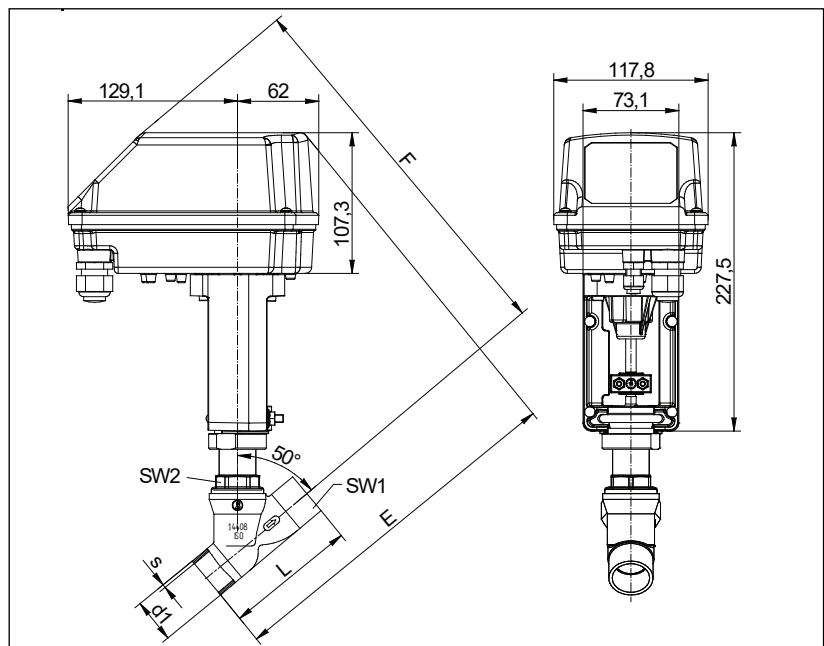
Ordering example: 7210/025VK1020C1  
 Angle seat motor valve type 7210, DN 25, pipe thread acc. ISO228-1, stainless steel body, seating seal PTFE, control actuator CA24C, 24V AC/DC, 0,8 kN, position electronics 4-20 mA, position feedback 2-10V, linear characteristic, Kvs-value 14 (100 %).

## 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		SW1	SW2	Stroke	Weight kg
	G / NPT	G	NPT	d1	s	d1	s	G / NPT					DIN/ISO	pressure				
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	