

Angle Seat Motor Valve 7310



DN 40 up to DN 65

Fast and high resolution motorvalve for control and switching of neutral through to highly aggressive media in process engineering, chemical industries and for plant equipment.

- Low operation noise level (quiet operation)
- Control of high differential pressures with small actuators
- Fast stroking speed
- Small dead band
- Smooth start and slow down
- Stainless steel body

Technical Information of the Valve

Body material	Stainless steel 1.4408
Nominal size	DN 40 up to DN 50 1 1/2" up to 3"
Connections:	
Pipe threads acc. ISO 228-1	DN 40 - 80 / 1 1/2" - 3"
NPT thread	DN 40 - 80 / 1 1/2" - 3"
Welding ends	DN 40 - 65 / 1 1/2" - 2 1/2"
Clamp connections	DN 40 - 65 / 1 1/2" - 2 1/2"
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



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

Technical Information of the Actuator

Driving force	2,0 kN / 5,0 kN
Power connections	24 V AC/DC 100 - 240 V 50/60Hz
Ambient temperature	Standard: -10°C up to +60°C Low temperature version: -40°C up to +60°C
Storage Temperature	Standard: -30°C up to +80°C (+60°C with Fail-Safe protection) Low temperature version: -40°C up to +80°C (+60°C with Fail-Safe protection)
Mounting position	choice horizontal or vertical actuator only
Protection class (EN 60529)	IP 67
Max. power consumption	40 Watt
Dead band	±0,2% at min. 6mm stroke
Repeat accuracy	±0,1% at min. 6mm stroke
Stroking speed	2,0 kN-version: 0,75 s/mm up to 250 s/mm (standard 1,5 s/mm) 5,0 kN-version: 2 s/mm up to 250 s/mm (standard 4 s/mm)
Stroking speed of the Fail-Safe protection	2,0 kN-version: 0,75 s/mm up to 4 s/mm 5,0 kN-version: 2 s/mm up to 4 s/mm
Set point range	adjustable 0(4) - 20 mA, 0(2) - 10 V optional binary input signal (24V DC)
Feed back	adjustable 0(4) - 20 mA, 0(2) - 10 V
cycles (Fail-Safe)	500.000
life-time (Fail-Safe)	10 years
duty cycle	100%
Self Monitoring	monitoring of the driving power, set point, actuator temperature, temperature of the electronic etc.
Diagnostic function	storage of motor and total service life, temperature- and way classes
Valve adaptation	automatic stroke adjustment to suit valve limits
additional inputs	binary input
additional outputs	2 alarm outputs

Stroking Times

DN	Stroke	Stroking time (sec.) for the complete stroke				
		0,75 s/mm	1 s/mm	1,5 s/mm	2 s/mm	4 s/mm
40	24	18	24	36	48	96
50	24	18	24	36	48	96
65	24	18	24	36	48	96
80	24	18	24	36	48	96
for controlcone linear 100%					Standard 2kN-actuator	min. stroking time for 5kN-actuator
						Standard 5kN-actuator

 = Standard

Admissible Differential Pressures

driving force	seating seal Nominal size	p _{max} [bar]					
		PTFE		PEEK-7 (T<160°C)		PEEK-8 (T>160°C)	
		Control	On/Off	Control	On/Off	Control	On/Off
2kN	DN40	16	16	8	8	14	14
	DN50*	10	10	3,5	3,5	8,5	8,5
	DN65*	5	5	-	-	4,5	4,5
	DN80*	3,5	3,5	-	-	2,5	2,5
5kN	DN40	17	23	17	23	17	23
	DN50*	15	15	15	15	17	25
	DN65*	12	12	10	10	14	14
	DN80*	11	11	6,5	6,5	10	10

*reinforced design

Kvs-values

Characteristic	linear				equal percentage			
DN	40	50	65	80	40	50	65	80
100 %	27	37	52	69	25	-	-	-
40 %	11	-	-	-	10	-	-	-
On-Off	35	45	80,00	112,00				

Options

2 additional stroke limit switches	free adjustable volt free contacts (open/close)
Fail safe protection	Mounted in own body at actuator Safety position freely selectable
Communication software	with communication link, for parametrization and diagnosis of the actuator
Bluetoothmodul BT-1	Wireless connection to DeviceConfig configuration software (upgrade option)

Actuator with Fail-Safe protection (Option)

- Safety function at power failure
- Power supply via high performance capacitors
- Safety position open, closed or in every other position selectable
- Automatic monitoring of the charge condition of the capacitors



Ordering Number System

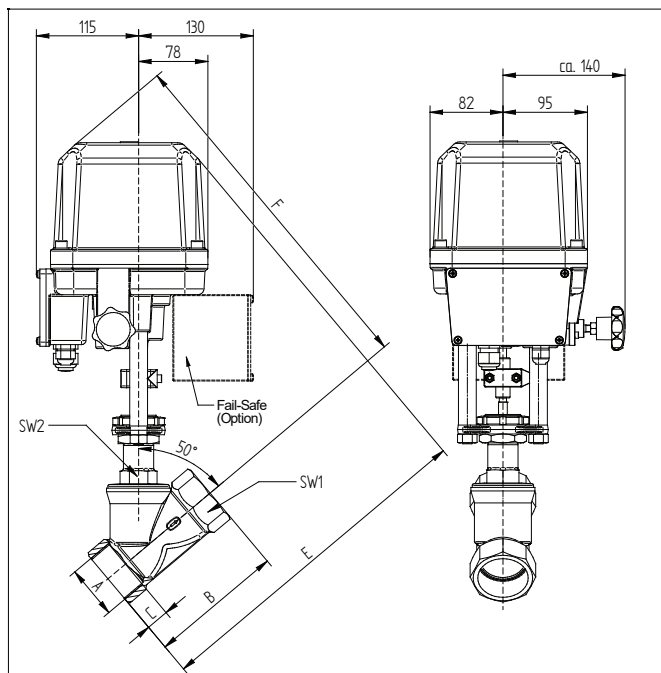
		Article number											
Nominal size:		7310/										S	
DN 40			040										
DN 50			050										
DN 65			065										
DN 80			080										
Item:													
Valve			V										
Upper part			U										
Actuator			A										
Body design:													
Angle bodied				1									
Connection:													
BSP thread					0								
NPT thread					5								
With welded ends acc. DIN 11850-series 2					D								
With welding ends acc. ISO					H								
Body material:													
Stainless steel					2								
Seating seal:													
PTFE					0								
FKM (Viton)					1								
EPDM					2								
NBR					3								
Actuator:													
without actuator					0								
2kN, position electronic, IP67, activation: 4-20mA or 2-10V, feedback 4-20mA or 2-10V					A								
5kN, position electronic, IP67, activation: 4-20mA or 2-10V, feedback 4-20mA or 2-10V					B								
Motor Voltage													
100 - 240V, 50/60Hz					-								
24V AC/DC					1								
Control plug:													
none					-								
linear 100%					1								
equal percentage 100%					2								
linear 40%					3								
equal percentage 40%					4								
Safety position													
without safety position					-								
Fail Safe Function: Safety position closed in the case of power failure					1								
Fail Safe Function: Safety position opened in the case of power failure					2								
Fail Safe Function: position in case of power failure according to customer					3								
Stroking times													
Standard (1,5s/mm=0,67mm/s)					-								
0,75s/mm = 1,33mm/s					1								
1s/mm = 1mm/s					2								
2s/mm = 0,5mm/s					3								
4s/mm = 0,25mm/s					4								
20s/mm = 0,05mm/s					9								

ordering example: 7310/040V1020A-1

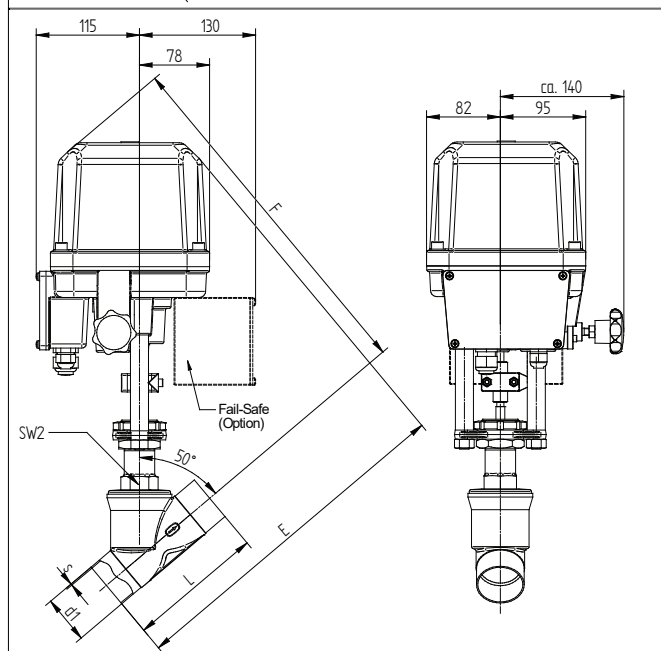
Angle seat valve with motor actuator DN 25, PN 10/40, BSP thread, Stainless Steel,
linear actuator 2 kN, 100-240V 50/60 Hz, control cone 100% linear

Dimensions and Weights

Body with threaded connection G/NPT



Body with welded ends DIN/ISO



DN	A G / NPT	B G / NPT	C		L	ISO		DIN		SW1	SW2
			G	NPT	DIN/ISO	d1	s	d1	s		
40	1 1/2"	120	21,4	18,5	120	48,3	2,6	41	1,5	55	30
50*	2"	150	25,7	19	150	60,3	2,9	53	1,5	68	36
65*	2 1/2"	180	30,2	25,5	180	76,1	2,9	70	2	85	41
80*	3"	214	0	27,4	-	-	-	-	-	100	41

DN	E		F		weight with 2 kN-actuator		weight with 5 kN-actuator	
	2kN	5kN	2kN	5kN	without Fail-Safe	with Fail-Safe	without Fail-Safe	with Fail-Safe
40	362	382	381	404	9,8	11,5	10,7	12,4
50*	375	395	383	408	10,8	12,5	11,7	13,4
65*	395	414	396	420	12,6	14,3	13,5	15,2
80*	445	464	394	417	14,7	16,4	15,6	17,3

dimensions in mm

*: reinforced version

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