Angle Seat Motor Valve 7310

1/2“ up to 3“

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
- For temperatures form -58°F up to 428°F

Technical Information of the Valve

Body material	Stainless steel CF8M	
Nominal size	1/2“ up to 3“	
Connections: Pipe threads acc. ISO 228-1 NPT thread Welding ends Clamp connections	 1/2“ up to 3“ 1/2“ up to 3“ 1/2“ up to 3“ 1/2“ up to 3“	
Nominal pressure	580 psi	
Media temperature	-22°F up to 392°F, opt. -58°F up to 428°F	
Ambient temperature	Standard: Low temperature version:	+14°F up to +140°F -40°F up to +140°F
Viscosity	max. 600 mm²/s (600 cSt)	
Vacuum	max. 0.0295 mercury (Hg)	
Operating pressure packing underneath	max. 175 psi	
Operating pressure for Tri-Clamp connection	max. 235 psi	

Technical Information of the Actuator

Driving force	450 lbf / 1100 lbf		
Power connections	24 V AC/DC		
	100 - 240 V 50/60Hz		
Ambient temperature	Standard: Low temperature version:	+14°F up to +140°F -40°F up to +140°F	
Storage Temperature	Standard: Low temperature version:	-22°F up to +176°F (+140°F with Fail-Safe protection) -40°F up to +176°F (+140°F with Fail-Safe protection)	
Mounting position	choice horizontal or vertical actuator only		
Protection class (EN 60529)	IP 67		
Max. power consumption at 24V AC/DC-operation:	40 Watt		
Nominal power consumption during mains operation	Mains voltage 230V: Mains voltage 115V:	P=40W S=67,8VA I=295mA P=40W S=58,8VA I=511mA	cosφ=0.59 cosφ=0.68
Dead band	±0.2% at min. 0.24“ stroke		
Repeat accuracy	±0.1% at min. 0.24“ stroke		
Stroking speed	450 lbf-version: 1100 lbf-version:	19 s/inch up to 6350 s/inch (standard 38 s/inch) 51 s/inch up to 6350 s/inch (standard 38 s/inch)	
Stroking speed of the Fail-Safe protection	450 lbf-version: 1100 lbf-version:	19 s/inch up to 102 s/inch (standard 38 s/inch) 51 s/inch up to 102 s/inch (standard 38 s/inch)	
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)	500000		
life-time (Fail-Safe)	10 years		
duty cycle	100%		
Self Monitoring	monitoring of the driving power, set point, actuator temperature, temperatrure 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		
additonal outputs	2 alarm outputs		
Electrical connection	Power supply M20x1.5 (optional NPT 1/2“) Signal/position feedback 2x M16x1.5		

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SCHUBERT SALZER

Admissible Differential Pressures

driving force	pmax [bar]						
	seating seal	PTFE		PEEK-7 (T<320°F)		PEEK-8 (T>320°F)	
	Nominal size	Control	On/Off	Control	On/Off	Control	On/Off
450 lbf	1/2“	245	574	245	574	245	575
	3/4“	245	574	245	574	245	575
	1“	245	479	245	374	245	518
	1 1/4“	245	338	194	194	245	310
	1 1/2“	230	230	115	115	200	200
	2“ *	145	145	50	50	120	120
	2 1/2“ *	72	72	-	-	65	65
	3“ *	50	50	-	-	36	36
1120 lbf	1/2“	-	-	245	574	245	574
	3/4“	-	-	245	574	245	574
	1“	-	-	245	474	245	474
	1 1/4“	-	-	245	502	245	502
	1 1/2“	-	-	245	330	245	330
	2“ *	-	-	215	215	245	360
	2 1/2“ *	-	-	145	145	200	200
	3“ *	-	-	94	94	145	145
450 lbf pressure balanced version	1/2“	-	-	-	-	-	-
	3/4“	-	-	-	-	-	-
	1“	-	-	-	-	-	-
	1 1/4“	245	580	245	580	245	580
	1 1/2“	245	580	245	580	245	580
	2“	245	580	245	580	245	580
	2 1/2“	245	360	245	360	245	360
	3“ *	245	360	245	360	245	360

*reinforced design

Cvs-values (stroke)

Characteristic	linear								equal percentage							
Size	1/2“	3/4“	1“	1 1/4“	1 1/2“	2“	2 1/2“	3“	1/2“	3/4“	1“	1 1/4“	1 1/2“	2“	2 1/2“	3“
100 %	4.4 (0.36)	10.2 (0.60)	16.2 (0.72)	23.2 (0.83)	31.3 (0.83)	45.2 (0.83)	48.7 (0.79)	62.6 (0.79)	3.5 (0.36)	7 (0.44)	11.6 (0.72)	18.6 (0.83)	29 (0.83)	36 (0.83)	38.3 (0.79)	49.9 (0.81)
63 %	-	-	-	-	-	27.8 (0.83)	30.2 (0.83)	-	-	-	-	-	-	19.7 (0.83)	22 (0.79)	-
40 %	1.74 (0.36)	4.1 (0.28)	6.7 (0.40)	9.3 (0.44)	12.8 (0.44)	-	-	-	1.4 (0.36)	2.8 (0.28)	4.6 (0.44)	7 (0.52)	12 (0.56)	-	-	-
25 %	1.08* (0.36)	2.6 (0.28)	4.2 (0.40)	-	-	-	-	-	0.93* (0.36)	1.7 (0.28)	3 (0.44)	-	-	-	-	-
15%	-	-	-	-	-	-	-	-	0.53* (0.36)	-	-	-	-	-	-	-
10%	0.46* (0.36)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5%	-	-	-	-	-	-	-	-	0.27* (0.36)	-	-	-	-	-	-	-
On-Off	4.4 (0.36)	10.4 (0.60)	19.7 (0.72)	32.5 (0.83)	40.6 (0.83)	59 (0.83)	72 (0.79)	86 (0.79)	-	-	-	-	-	-	-	-

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

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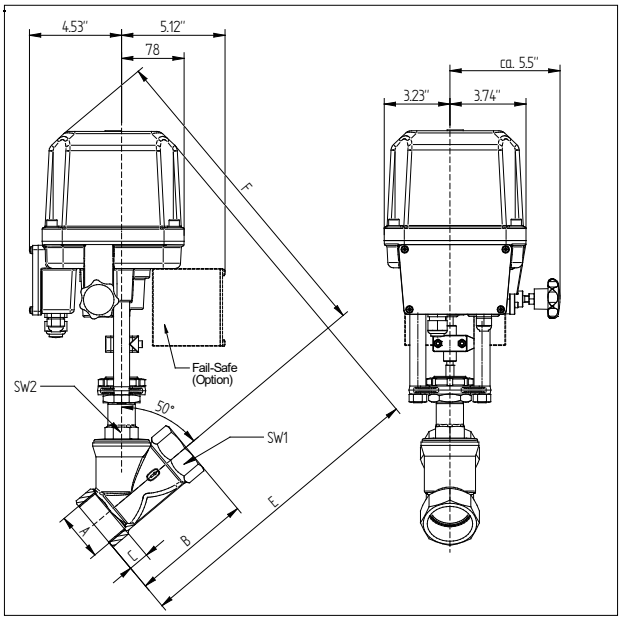
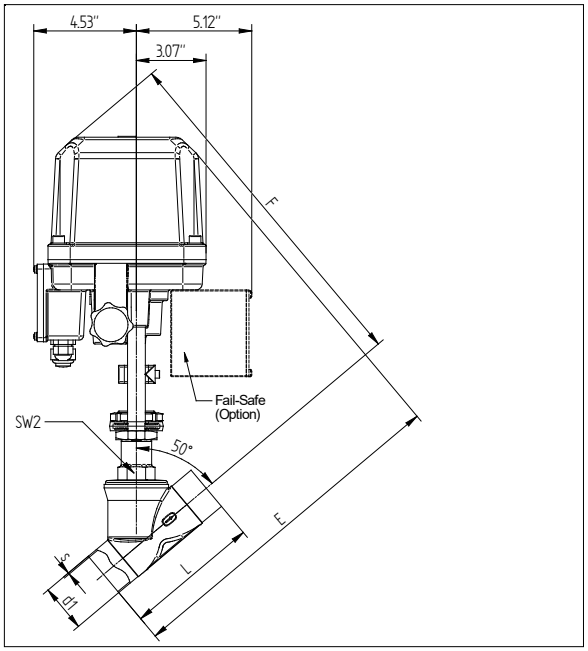
Dimensions and Weights

Body with threaded connection G/NPT



Body with welded ends DIN/ISO



DN	A	B	C		L	ISO		DIN		SW1	SW2
	G / NPT	G / NPT	G	NPT	DIN/ISO	d1	s	d1	s		
1/2“	1/2“	2.56	0.59	0.57	3.15	0.84	0.08	0.71	0.06	0.98	1.18
3/4“	3/4“	2.99	0.64	0.59	3.54	1.06	0.09	0.87	0.06	1.22	1.18
1“	1“	3.54	0.75	0.71	3.94	1.33	0.1	1.1	0.06	1.54	1.18
1 1/4“	1 1/4“	4.33	0.84	0.73	4.33	1.67	0.1	1.34	0.06	1.89	1.18
1 1/2“	1 1/2“	4.72	0.84	0.73	4.72	1.9	0.1	1.61	0.06	2.17	1.18
2“ *	2“	5.91	1.01	0.75	5.91	2.37	0.11	2.09	0.06	2.68	1.42
2 1/2“ *	2 1/2“	7.09	1.19	1	7.09	3	0.11	2.76	0.08	3.35	1.61
3“*	3“	8.43	1.32	1.08	8.66	3.5	0.13	-	-	3.94	1.61

DN	E		F		weight with 450 lbf-actuator lbs		weight with 1120 lbf-actuator lbs	
	2kN	5kN	2kN	5kN	without Fail-Safe	with Fail-Safe	without Fail-Safe	with Fail-Safe
1/2“	12.8	13.54	14.02	14.96	19.5	23.5	21.5	25.5
3/4“	13.03	13.86	14.17	15.16	20	24	22	26
1“	13.35	14.13	14.37	15.31	20.5	24.5	22.5	26.5
1 1/4“	14.02	14.8	14.96	15.91	22	25.5	24	27.5
1 1/2“	14.25	15.04	15	15.91	21.5	25.5	23.5	27.5
2“ *	14.76	15.55	15.08	16.06	24	27.5	25.5	29.5
2 1/2“ *	15.55	16.3	15.59	16.54	27.5	31.5	29.5	33.5
3“*	17.52	18.27	15.51	16.42	32.5	36	34.5	38

dimensions in inch

*: reinforced version

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