

3/2-Way Motor Control Valve 7382

1/2" up to 2"



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.

- Unaffected by lightly contaminated fluids
- Low operation noise level (quiet operation)
- Fast stroking speed
- Small dead band
- Smooth start and slow down
- Stainless steel body
- For temperatures from -40°F up to 428°F



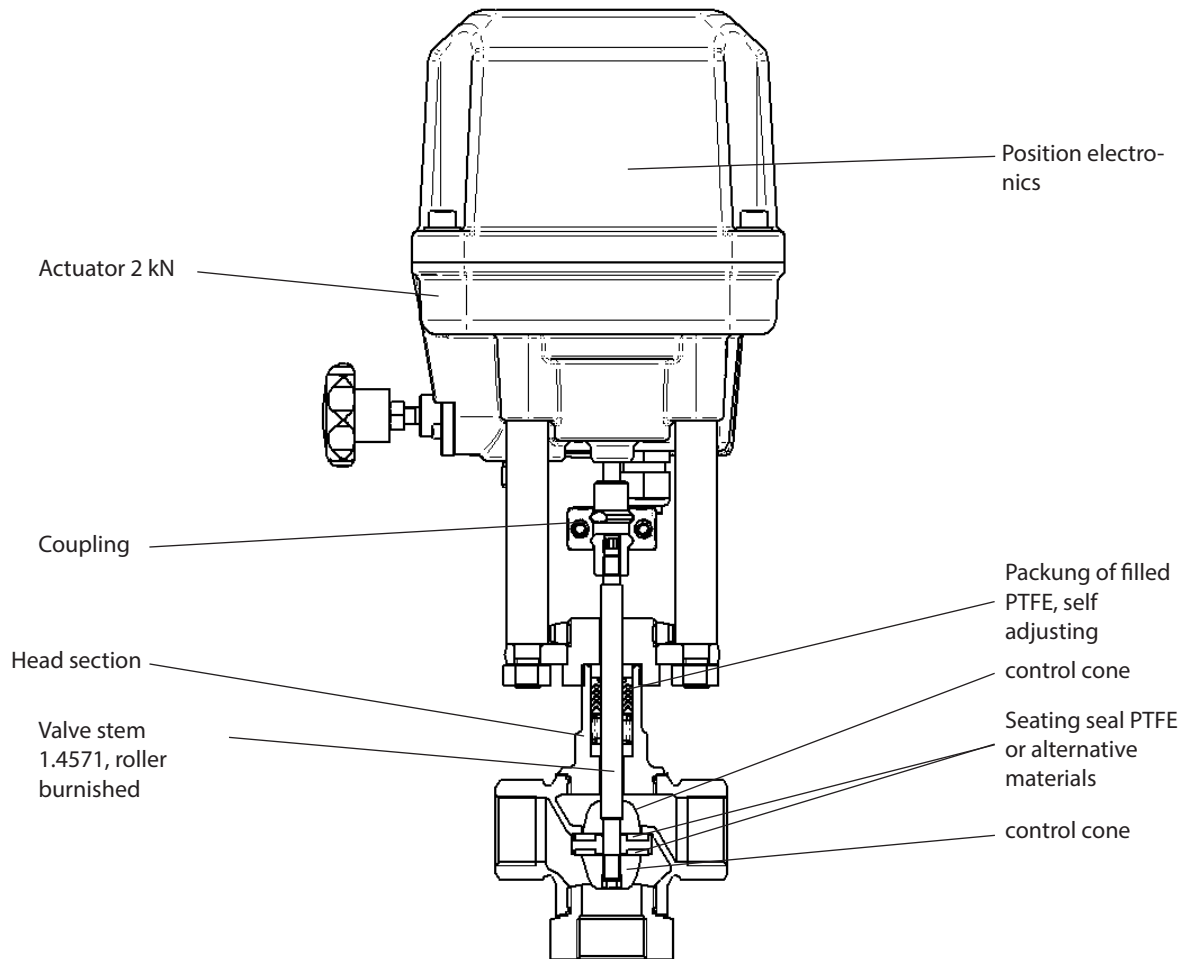
Technical Information on the Valve

Nominal sizes	1/2" up to 2"	
Connections	NPT thread: 1/2" up to 2"	
Nominal pressure	580 psi	
Fluid temperature	-22°F up to + 392°F, opt. -40°F up to 428°F	
Ambient temperature	Standard:	+14°F up to +140°F
	Low temperature version:	-40°F up to +140°F

*: Please consider further temperature versions and limits in technical bulletin 32

Technical Information on the Motor Actuator

Driving force	450 lbf / 1100 lbf		
Power connections	24 V AC/DC 100 - 240 V 50/60Hz		
Ambient temperature	Standard:	+14°F up to +140°F	
	Low temperature version:	-40°F up to +140°F	
Storage Temperature	Standard:	-22°F up to +176°F (+140°F with Fail-Safe protection)	
	Low temperature version:	-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:	P=40W S=67,8VA I=295mA	cosφ=0.59 cosφ=0.68
	Mains voltage 115V:	P=40W S=58,8VA I=511mA	
Dead band	±0.2% at min. 0.24" stroke		
Repeat accuracy	±0.1% at min. 0.24" stroke		
Stroking speed	450 lbf-version:	19 s/inch up to 6350 s/inch (standard 38 s/inch)	
	1100 lbf-version:	51 s/inch up to 6350 s/inch (standard 38 s/inch)	
Stroking speed of the Fail-Safe protection	450 lbf-version:	19 s/inch up to 102 s/inch (standard 38 s/inch)	
	1100 lbf-version:	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, 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		
Electrical connection	Power supply M20x1.5 (optional NPT 1/2") Signal/position feedback 2x M16x1.5		



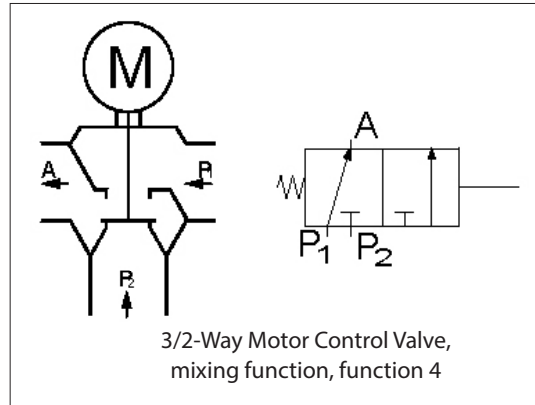
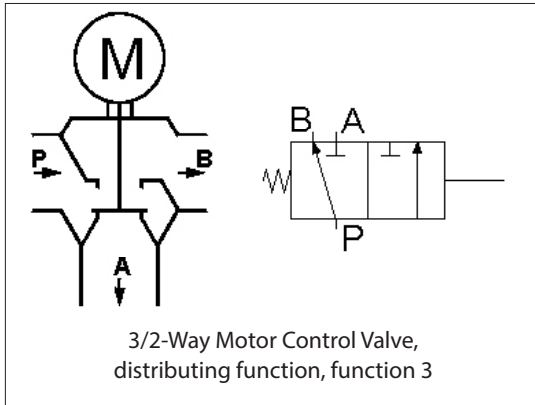
Stroking times

DN	Stroke in inch	Stroking time (sec.) for the complete stroke				
		19,1 s/inch	25,4 s/inch	38,1 s/inch	50,8 s/inch	101,6 s/inch
1/2" - 1"	0.55	11	14	21	28	56
1 1/4"	0.59	11	15	23	30	60
1 1/2"	0.91	17	23	35	46	92
2"	0.87	17	22	33	44	88
				Standard 450 lbf-actuator	min. stroking time for 5 kN-actuator	Standard 1120 lbf-actuator

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)

Functions



Admissible differential pressures, distributing function

	Seating seal	PTFE
	Nominal size	p,max. Psi
driving force: 450 lbf	1/2"	230
	3/4"	230
	1"	230
	1 1/4"	230
	1 1/2"	160
	2"	85
driving force: 1120 lbf	1/2"	230
	3/4"	230
	1"	230
	1 1/4"	230
	1 1/2"	230
	2"	230

Admissible differential pressures, mixing function

	Seating seal	PTFE	PEEK (7)	PEEK (8) ⁽¹⁾	ELASTOME R ⁽²⁾
	Nominal size	p,max. psi			
driving force: 450 lbf	1/2"	230	230	230	230
	3/4"	230	230	230	230
	1"	230	230	230	230
	1 1/4"	230	115	205	230
	1 1/2"	145	45	130	160
	2"	75	5	60	85
	driving force: 1120 lbf	1/2"	230	230	230
3/4"		230	230	230	230
1"		230	230	230	230
1 1/4"		230	230	230	230
1 1/2"		205	205	205	205
2"		220	145	205	230

(1): at T > 320°F
 (2): only for on/off valves

Kvs-values

Size	Cv - values			
	distributing function		mixing function	
	P-A	P-B	P1-A	P2-A
1/2"	8.7	6.4	6.4	8.7
3/4"	11.6	7.5	7.5	11.6
1"	16.2	11.6	11.6	16.2
1 1/4"	20.9	17.4	17.4	20.9
1 1/2"	52.2	31.3	31.3	52.2
2"	66.1	47.6	47.6	66.1

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Ordering Number System

		Article number										
		7382									S	
Nominal size:												
1/4" (DN 15)		015										
3/4" (DN 20)		020										
1" (DN 25)		025										
1 1/4" (DN 32)		032										
1 1/2" (DN 40)		040										
2" (DN 50)		050										
Item:												
Valve		V										
Upper part		U										
Actuator		A										
Body design:												
3/2-way valve, distributing function		3										
3/2-way valve, mixing function		4										
Connection:												
BSP thread		0										
NPT thread		5										
flange connection acc. DIN EN 1092-1, PN40, welded version		9										
Body material:												
Stainless steel		2										
Seating seal:												
PTFE		0										
PEEK		7										
PEEK for applications above 160°C[320°F]		8										
Actuator:												
without actuator		0										
450 lbf, position electronic, IP67 , activation: 4-20mA or 2-10V, feedback 4-20mA or 2-10V		A										
1120 lbf, 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		0										
linear 100%		-										
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 (38.1s/inch=0.026inch/s)		-										
19.0s/inch = 0.052inch/s		1										
25.4s/inch = 0.039inch/s		2										
50.8s/inch = 0.020inch/s		3										
101.6s/inch = 0.010inch/s		4										
508.0s/inch = 0.002inch/s		9										

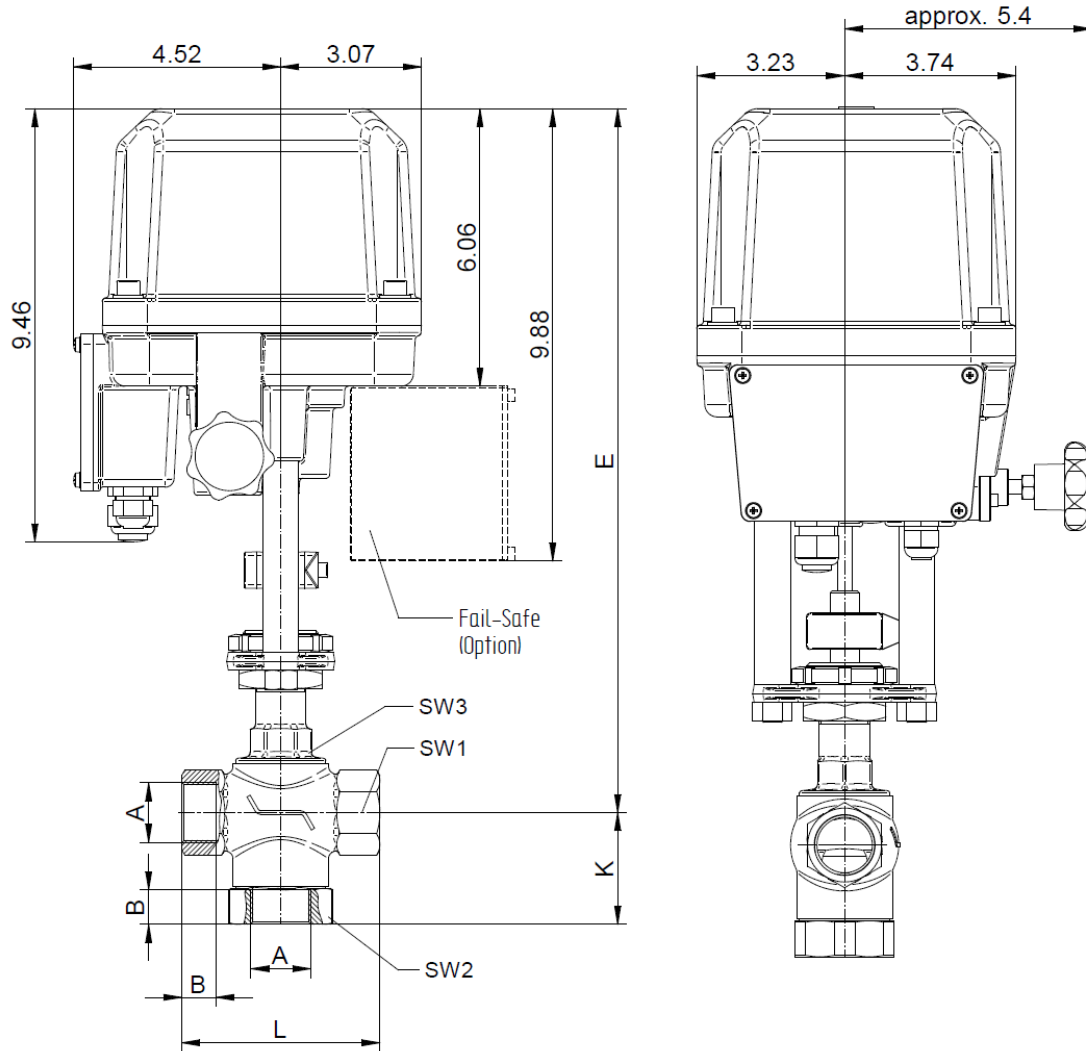
Ordering example: 7382/025V35201-1

3/2-way motorvalve, 1", PN40, distribution function, NPT-thread, Stainless steel, PTFE-
Seating seal, Actuator 2kN, 100-240V 50/60 Hz, control plug 100% linear

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Dimensions and Weights



Size	A		B		E		Stroke	K	L	SW1	SW2	SW3
	G-thread	NPT-thread	G-thread	NPT-thread	2kN	5kN						
1/2"	1/2"	1/2"	0.59	0.57	15.75	16.93	0.55	2.44	3.54	1.02	1.61	1.18
3/4"	3/4"	3/4"	0.64	0.59	15.75	16.93	0.55	2.44	3.54	1.26	1.61	1.18
1"	1"	1"	0.75	0.71	16.14	17.32	0.55	2.48	4.33	1.61	2.17	1.18
1 1/4"	1 1/4"	1 1/4"	0.84	0.72	16.54	17.72	0.59	2.91	5.12	1.89	2.56	1.18
1 1/2"	1 1/2"	1 1/2"	0.84	0.72	16.93	18.11	0.91	3.46	5.51	2.28	2.95	1.26
2"	2"	2"	1.01	0.75	17.32	18.5	0.91	3.74	7.09	3.35	3.54	1.42
Size	Weight 450 lbf-actuator lbs		Weight 1120 lbf-actuator lbs									
	without Fail-Safe	with Fail-Safe	without Fail-Safe	with Fail-Safe								
1/2"	22.3	26	24.3	28								
3/4"	22.3	26	24.3	28								
1"	23.1	26.9	25.1	28.9								
1 1/4"	24.5	28.2	26.5	30.2								
1 1/2"	26.5	30.2	28.4	32.2								
2"	33.5	37.3	35.5	39.2								