

3/2-Way Motor Control Valve 7382

DN 15 up to DN 50

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°C up to +220°C



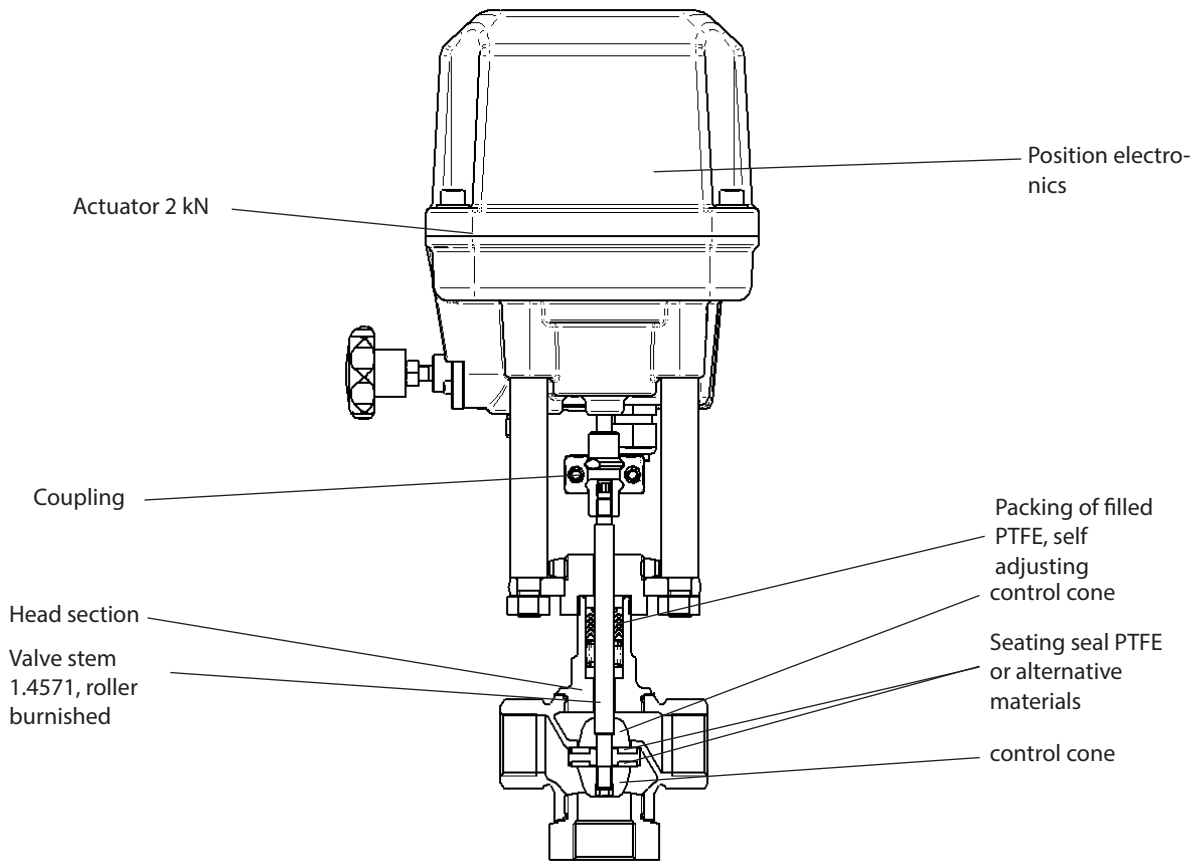
Technical Information on the Valve

Nominal sizes	DN 15 up to DN 50	
Connections	Pipe thread acc. ISO 228-1: G 1/2" - 2" NPT thread: 1/2" - 2"	
Nominal pressure	PN40	
Fluid temperature*	-30°C up to + 200°C, opt. -40°C up to +220°C	
Ambient temperature	Standard:	-10°C up to +60°C
	Low temperature version:	-40°C up to +60°C
Packing leakage	tested according to TA-Luft as defined in DIN EN ISO 15848-1 and VDI 2440	

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

Technical Information on the Motor 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 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. 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)	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		



Options

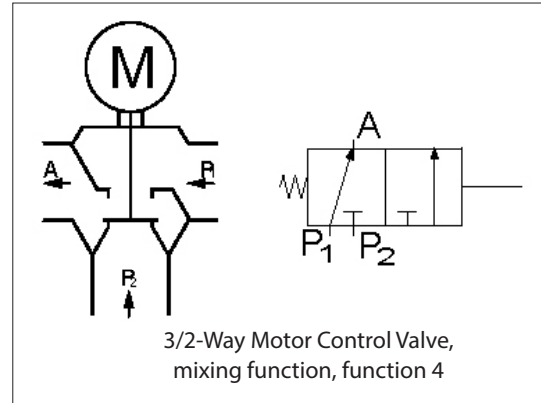
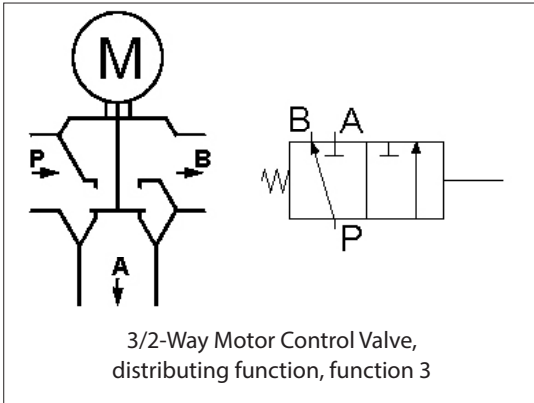
2 additional stroke limit switches	free adjustable volt free contacts (open/close)
Fail-Safe protection	Mounted in own body at actuator Safety position freely selectable
Communication software	with communication link, for parametrization and diagnosis of the actuator
Bluetoothmodul BT-1	Wireless connection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



Functions



Admissible differential pressures, distributing function

	Seating seal	PTFE
	Nominal size DN	p,max. bar
driving force: 2kN	15	16
	20	16
	25	16
	32	16
	40	11
50	6	
driving force: 5kN	15	16
	20	16
	25	16
	32	16
	40	16
50	16	

Admissible differential pressures, mixing function

	Seating seal	PTFE	PEEK (7)	PEEK (8) ⁽¹⁾	ELASTOMER ⁽²⁾
	Nominal size DN	p,max. bar			
driving force: 2kN	15	16	16	16	16
	20	16	16	16	16
	25	16	16	16	16
	32	16	8	14	16
	40	10	3	9	11
	50	5	0,5	4	6
driving force: 5kN	15	16	16	16	16
	20	16	16	16	16
	25	16	16	16	16
	32	16	16	16	16
	40	14	14	14	14
	50	15	10	14	16

(1: at T > 160°C
 (2: only for on/off valves)

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
15 - 25	14	11	14	21	28	56
32	15	11	15	23	30	60
40	23	17	23	35	46	92
50	22	17	22	33	44	88
				Standard 2kN-actuator	min. stroking time for 5 kN-actuator	Standard 5kN-actuator

Kvs-values

DN	Kvs - value			
	distributing function		mixing function	
	P-A	P-B	P1-A	P2-A
15	7,5	5,5	5,5	7,5
20	10	6,5	6,5	10
25	14	10	10	14
32	18	15	15	18
40	45	27	27	45
50	57	41	41	57

Ordering Number System

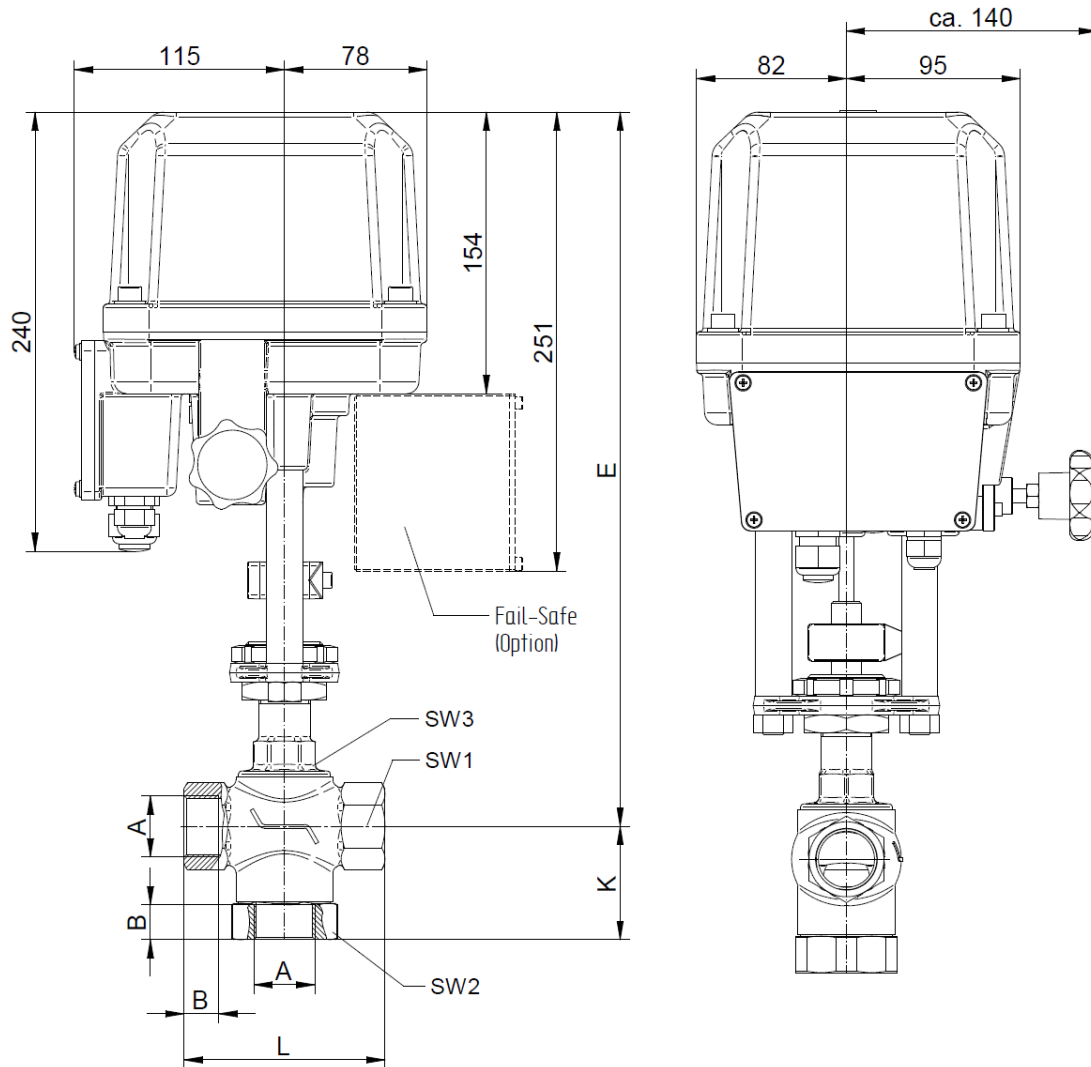
		Article number										
		7382/									S	
Nominal size:												
DN 15		015										
DN 20		020										
DN 25		025										
DN 32		032										
DN 40		040										
DN 50		050										
Item:												
Valve		V										
Upper part		U										
Actuator		A										
Body design:												
3/2-way valve, distributing function		3										
3/2-way valve, mixing function		4										
Connection:												
Whitworth pipe thread acc. DIN 2999 / ISO 228		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										
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		0										
linear 100%		-										
Safety position												
without safety position		-										
Fail Safe Function: Valve stem travelling out of the valve in case of power failure; flow direction P to A (distributing function) or P2 to A (mixing function)		1										
Fail Safe Function: Valve stem travelling into the valve in case of power failure; flow direction P to B (distributing function) or P1 to A (mixing function)		2										
Fail Safe Function: position in case of power failure according to customer		3										
Stroking times												
Standard (2kN: 1,5s/mm=0,67mm/s; 5kN: 4s/mm=0,25mm/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: 7382/025V3020A-1

3/2-way motorvalve, DN25, PN40, distribution function, Whitworth-pipe thread, Stainless steel, PTFE-Seating seal, Actuator 2kN, 100-240V 50/60 Hz, control plug 100% linear

3/2-Way Motor Control Valve 7382

Dimensions and Weights



DN	A		B		E		Stroke	K	L	SW1	SW2	SW3
	G-thread	NPT-thread	G-thread	NPT-thread	2kN	5kN						
15	1/2"	1/2"	15	14,5	400	430	14	62	90	26	41	30
20	3/4"	3/4"	16,3	15	400	430	14	62	90	32	41	30
25	1"	1"	19,1	18	410	440	14	63	110	41	55	30
32	1 1/4"	1 1/4"	21,4	18,4	420	450	15	74	130	48	65	30
40	1 1/2"	1 1/2"	21,4	18,4	430	460	23	88	140	58	75	32
50	2"	2"	25,7	19	440	470	23	95	180	85	90	36

DN	weight 2kN-Actuator		weight 5kN-Actuator	
	without Fail-Save	with Fail-Save	without Fail-Save	with Fail-Save
15	10,1	11,8	11	12,7
20	10,1	11,8	11	12,7
25	10,5	12,2	11,4	13,1
32	11,1	12,8	12	13,7
40	12	13,7	12,9	14,6
50	15,2	16,9	16,1	17,8

dimensions in mm