

3/2-Way Motor Valve 7180

DN 15 up to DN 40

3/2-way motor valve for diverting, mixing and control operation of neutral and slightly aggressive fluids.

- Compact design
- Unaffected by lightly contaminated media
- For temperatures from -30°C up to +200°C
- Working pressure up to 16 bar

Technical Information Valve

Body material	Bronze RG5
Nominal size	DN 15 up to DN 40
Connections	Pipe thread acc. ISO 228-1 G 1/2" - G 1 1/2"
Nominal pressure	PN 16
Media temperature	-30°C up to +170°C optional up to +200°C
Viscosity of media	max. 600 mm ² /s (600cSt, 80°E)



Technical Information Motor Actuator

Actuating force	0,45 kN; 0,9 kN; 2,0 kN
Type of Duty acc. VDE 0530	S1 - 100 % ED
Net Connections	230V AC 24V AC
Power Consumption	0,45 kN: 2,6 W; 0,9 kN: 4,8 W; 2,0 kN: 6,6 W
Amb. Temperature	0°C up to 60 °C
Mounting Position	Motor not top-down; (0,9 kN any)
Protection type (DIN 40050)	IP 43 (0,45 kN) optional: IP 65 (0,9 kN; 2 kN)

Options

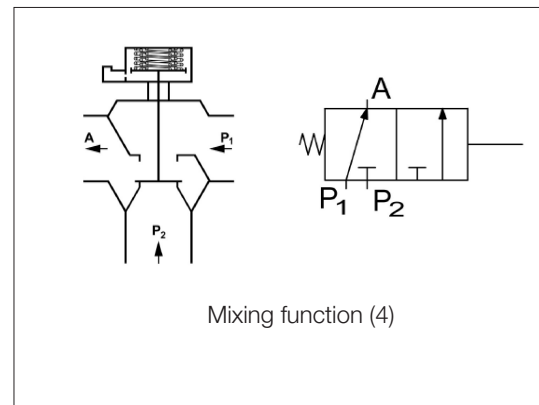
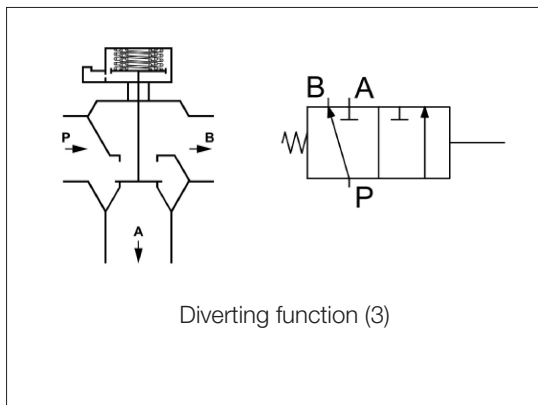
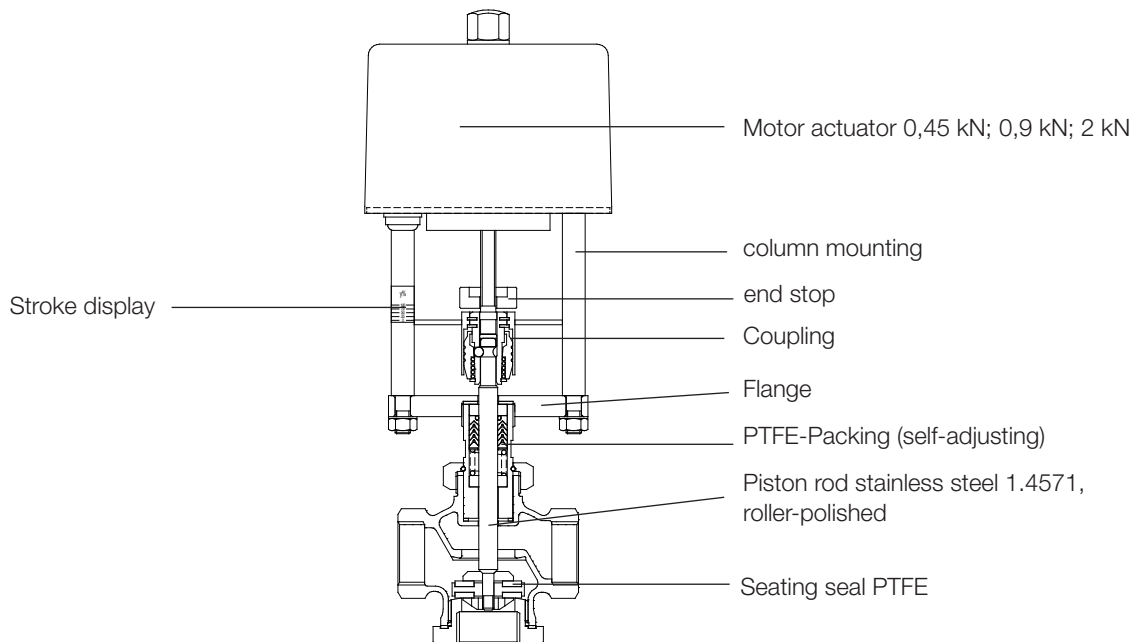
- version free of oil for oxygen applications

	0,45 kN	0,9 kN	2,0 kN
Limit switches	2	max. 2	max. 2
Potentiometer	1*	1*	1*
Positioner, analog	yes	yes	yes

* One potentiometer is required for positioner option

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Diverting / Mixing function



Kv-values

DN	P-B	P-A	P1-A	P2-A
15	5,5	5,3	5,7	5,3
20	7,4	8,7	7,3	9,5
25	12,3	12,5	12,6	14
32	24,4	20	25,5	21
40	26,6	23	30,3	23,3

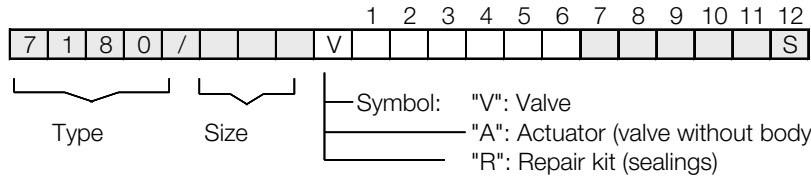
Nominal size DN	D P _{max} bar	Actuating force (kN)
15	5,3	0,45
15	16	0,9
20	5,3	0,45
20	16	0,9
25	2,5	0,45
25	8,7	0,9
25	16	2
32	3,3	0,9
32	9,8	2
40	3,3	0,9
40	9,8	2

The maximum nominal pressure is 16 bar.

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Ordering Number System



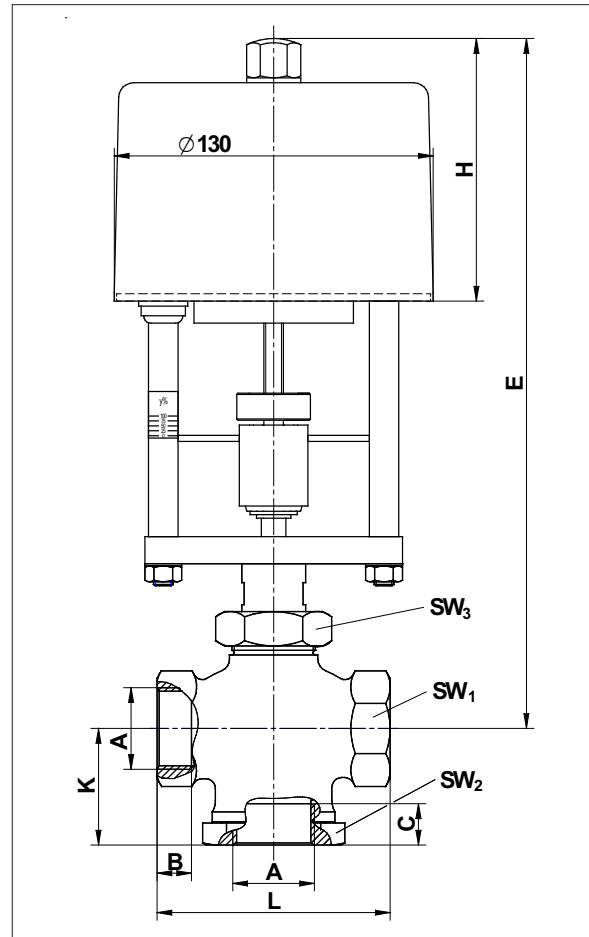
1 - 6 : Please quote all 6 sections.
 7 - 12: Quote only if required.

1. Body type	2. Connection	3. Body material	4. Seating seal	5. Pilot function	6. Motor
3 3/2-way, diverting function	0 Pipe thread acc. ISO 288-1	1 bronze	0 PTFE	A On/Off	4 Motor actuator 200 lbf (0,9 kN) - IP65
4 3/2-way, mixing function	5 NPT-thread		1 FKM 2 EPDM 3 NBR	R Control	1 Motor actuator 450 lbf (2,0kN) - IP65 7 Motor actuator 100 lbf (0,45kN) - IP43

7. Motor voltage	8. Stroking speed	9. Positioner	10. Limit switches	11. Feedback	12. Special versions
- 230VAC (Standard)	- Standard	- Without	- Without	- Without	S Quote for further special versions
1 24V DC	0 Motor stroking speed 0,9 kN = 0,2 inch/min.	0 0 - 10 V	1 1 stroke dependent limit switch	1 Feedback via potentiometer 1000 Ohm	
2 400V, 50 Hz 3-phase current	1 at 2 kN = 0,25 inch/min Motor stroking speed 0,9 kN = 0,53 inch/min.	M 0 - 20mA	2 2 stroke dependent limit switches	2 Feedback via potentiometer 200 Ohm	
4 110V/120V AC	2 at 2 kN = 0,25 inch/min Motor stroking speed 0,12 inch/min. 0,9 kN	N 4 - 20mA		3 Feedback via potentiometer 2000 Ohm	
	3 Motor stroking speed 0,067 inch/min. 0,9 kN	R 4 - 11 mA		4 Feedback via potentiometer 5000 Ohm	
	4 Motor stroking speed 1,18 inch/min at 50 Hz or 1,42 inch/min at 60 Hz 0,9 kN	S 11 - 20 mA		A 2 Potentiometer 1000 Ohm	
				C Stroke feedback for positioner 0/4-20 mA	
				F Stroke feedback for positioner 0/2-10 V	
				D Stroke feedback 4-20 mA (positioner printed baod only for stroke feedback)	
				E Stroke feedback 0-20 mA (positioner printed baod only for stroke feedback)	

Ordering example: 7180/025V4010R4 - - N
 3/2-way motor valve, Mischfunktion, nominal size DN 25, bronze-body with pipe thread acc. ISO 228-1, seating seal PTFE, control function, motor actuator 0,9 kN, IP65, 230 V AC, Standard-stroking speed positioner 4-20 mA

Dimensions and Weights



Diverting and mixing function

DN	Actuator	A	B	C	E		E		Stroke	K	L	SW1	SW2	SW3	Weight (~kg)	
					0,45kN/0,9kN w/o with positioner	2 kN w/o with positioner	w/o	with positioner								
15	0,45	G 1/2"	13	13	281	307	311	337	9	39	80	33	41	41	3	3,3
20	0,45	G 3/4"	13	14,5	281	307	311	337	9	42	80	33	41	41	3	3,3
25	0,45	G 1"	14	17	281	307	311	337	11	47	95	41	55	41	3,2	3,5
15	0,9	G 1/2"	13	13	281	307	311	337	9	39	80	33	41	41	3,2	4
20	0,9	G 3/4"	13	14,5	281	307	311	337	9	42	80	33	41	41	3,2	4
25	0,9	G 1"	14	17	281	307	311	337	11	47	95	41	55	41	3,4	4,2
32	0,9	G 1 1/4"	18	19	298	324	328	354	18,5	61	132	58	75	41	5	5,8
40	0,9	G 1 1/2"	18	19	298	324	328	354	18,5	61	132	58	75	41	5	5,8
25	2	G 1"	14	17	281	307	311	337	11	47	95	41	55	41	3,8	4,4
32	2	G 1 1/4"	18	19	298	324	328	354	18,5	61	132	58	75	41	5,4	6
40	2	G 1 1/2"	18	19	298	324	328	354	18,5	61	132	58	75	41	5,4	6

Dimensions in mm