

STANDARD

UP 1

STANDARD EQUIPMENT:

- Voltage 230 V AC
- Terminal board connection
- 2 torque switches
- 2 position switches
- 2 additional position switches
- Mechanical connection - flange ISO 5211
- Space heater with thermal switch
- Motor thermal protection
- Local position indicator
- Manual control
- Enclosure protection IP 66 / IP 68



Specification table UP 1

Order code

341. X - X X X X X / X X

Climate resistance	Ambient temperature	Corrosivity category ¹⁰⁾	Enclosure	
Standard	-25°C ... +55°C	C3	IP 66 / IP 68 ¹¹⁾	1
Tropics and Wet	-25°C ... +55°C	C4		2
Cold	-50°C ... +40°C	C3		3
Tropical dry and Dry	-25°C ... +55°C	C3		6
Sea	-50°C ... +40°C	C4		7
Arctic	-60°C ... +40°C	C3		8

Electric connection	Voltage and frequency		Wiring diagram	
To terminal board	230 V AC	50 Hz	Z404t	0
	220 V AC	50 Hz	Z404t	L
	3x400 V AC	50 Hz	Z78s	1
	3x380 V AC	50 Hz	Z78s	M
	24 V AC	50 Hz	Z626f, Z634h	A
	24 V DC	-		
	24 V AC	60 Hz ²⁴⁾		
	110 V AC	60 Hz ²⁴⁾	Z404t	B
	120 V AC	60 Hz ²⁴⁾	Z404t	T
	240 V AC	60 Hz ²⁴⁾	Z404t	V

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Electric motor 230/220 V AC; 110/120 V AC; 24 V AC/DC			Electric motor 3x400 (380) V AC			Operating time		
Switching-off torque ³¹⁾	Max. load torque		Switching-off torque ³¹⁾	Max. load torque				
	ON - OFF duly ³²⁾	Modulating duly ³³⁾		ON - OFF duly ³²⁾	Modulating duly ³³⁾	50 Hz	60 Hz	
105-170 Nm	100 Nm	70 Nm	105-170 Nm	100 Nm	70 Nm	80 s/90°	66 s/90°	U
90-150 Nm	90 Nm	60 Nm	90-150 Nm	90 Nm	60 Nm	80 s/90°	66 s/90°	M
						40 s/90°	34 s/90°	P
72-120 Nm	72 Nm	48 Nm	90-150 Nm	90 Nm	60 Nm	20 s/90°	17 s/90°	S
50-100 Nm	60 Nm	40 Nm	50-100 Nm	60 Nm	40 Nm	80 s/90°	66 s/90°	A
						40 s/90°	34 s/90°	C
						20 s/90°	17 s/90°	D
45-90 Nm	54 Nm	36 Nm	50-100 Nm	60 Nm	40 Nm	10 s/90°	8 s/90°	E
25-50 Nm	30 Nm	20 Nm	25-50 Nm	30 Nm	20 Nm	80 s/90°	66 s/90°	J
						40 s/90°	34 s/90°	L
						20 s/90°	17 s/90°	N
						10 s/90°	8 s/90°	R
22-45 Nm	27 Nm	18 Nm	25-50 Nm	30 Nm	20 Nm	5 s/90°	4 s/90°	F

Stop ends	Switches	Operating angle	Wiring diagram	
With stop ends	S1/S2, S3/S4 DUO S5/S6	60°	Z403b Z626f Z635f Z634h for EA with local control	A
		90°		B
		120°		C
		160°		D
Without stop ends	S1/S2, S3/S4 DUO S5/S6	60°		K
		90°		L
		120°		M
		160°		N
		360°		P

Transmitter		Connection	Output	Wiring diagram	
Without transmitter		-	-	-	A
Potentiometer	Single	-	1 x 100 Ω	Z5c	B
			1 x 1000 Ω		E
			1 x 2 000 Ω		F
	Double	-	2 x 100 Ω	Z6c	K
			2 x 1000 Ω		N
			2 x 2 000 Ω		P
Electronic position transmitter ⁵¹⁾	Passive	2-wire	4 - 20 mA	Z10g	S
		3-wire	0 - 20 mA	Z257j	T
			4 - 20 mA		V
			0 - 5 mA		Y
	Active ⁵⁹⁾	2-wire	4 - 20 mA	Z269r	Q
		3-wire	0 - 20 mA	Z260h	U
			4 - 20 mA		W
			0 - 5 mA		Z
	Passive	3-wire	0 - 10 V	Z257k	D
	Active ⁵⁹⁾		0 - 10 V	Z260k	R
Current ^{51) 52)} CPT	Passive	2-wire	4 - 20 mA	Z10g	I
	Active ⁵⁹⁾	2-wire	4 - 20 mA	Z269r	J
Current ^{51) 52)} DCPT 3M	Passive	2-wire	4 - 20 mA	Z10g	2
	Active ⁵⁹⁾		4 - 20 mA	Z269r	3

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341. X - X X X X / X X

Mechanical connection	Flange size	Coupling shape		Dimensional drawing		
Flange ISO 5211	F05/F07 ⁶⁶⁾	D-14	14x14	P-2111 P-2113 ⁶⁵⁾		A
		L-14	14x14			B
		H-14	14x22			C
		V-20	Ø20			D
		D-17	17x17			E
		L-17	17x17			F
		H-11	11x18			G
		D-11	11x11			H
		L-11	11x11			Q
		H-8	8x13			N
		D-9	9x9			M
		D-12	12x12			1
		V-17	Ø17 ⁶²⁾			P
		L-9	9x9			2
		L-12	12x12			3
		D-16	16x16			R
		L-16	16x16			S
		H-10	10x16			T
		H-13	13x19			4
		V-18	Ø18 ⁶²⁾			U
		V-30	Ø30 ⁶³⁾			V
		-	Ø8 ⁶⁴⁾			W
		H-17	17x25			Z
Stand + Output shaft with key		SV-25	Ø25	P-2110 P-2116 ⁶⁵⁾	P-2118	J
Stand + Lever		-	-		-	K
Stand + Lever + Pull-rod TV 40-1/20		-	-		P-0210	L

Additional equipment		Wiring diagrams			
	No additional equipment; adjusted to max. switching- off torque and operating angle 90°	-			
A	Adjustment of operating angle for required value	-		0	1
B	Adjustment of switch-off torque to required value	-		0	3
G	Electric local control unit	Z635f, Z634h		1	5
H	Gold-coated contacts of microswitches D41, details after consultation with the manufacturer	-		4	0
Permitted combination code: A+B =04; A+G=17; A+H=41; B+G=16; B+H=42; A+B+G=19; A+B+H=44; A+G+H=47; B+G+H=48					

Notes:

10) Climate resistance according to ISO 9223 / EN ISO 12944-2

11) IP 68-10 m / 96 hours.

24) At a frequency of 60 Hz, the specified torques must be reduced by a factor of 0.8

31) Required switch-off torque must be stated in the order. If not specified it is adjusted to the maximum torque.

32) The actuator can be loaded with this torque under duty cycle S2 – 10 min, or S4 – 25%, 6–90 cycles per hour.

33) The actuator can be loaded with this torque under duty cycle S4 – 25 %, 90–1 200 cycles per hour.

51) Not valid for temperatures of -60°C.

52) CPT - capacitive transmitter, DCPT 3M - electronic contactless transmitter.

62) Connection bore directly within output shaft (without replaceable inser).

63) Bore for replaceable insert.

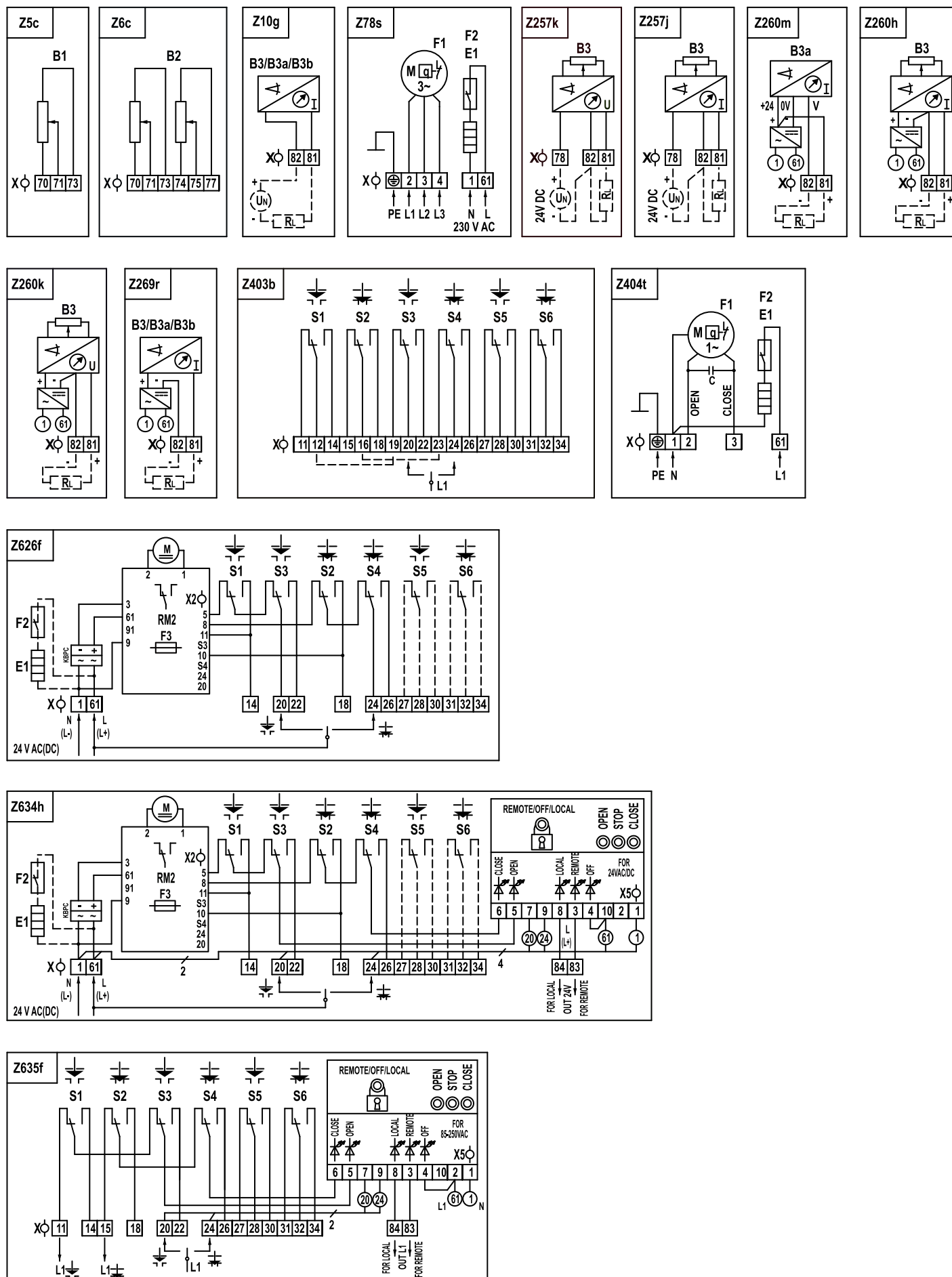
64) Replaceable insert with bore Ø 8

65) Valid for the actuator with local controls.

66) Version F05 with additional flange

Wiring diagrams

Terminal board connection



Electric connection:

to terminal board with 32 terminals, wire cross section max. 2,5 mm².
 The actuators without local control can be equipped with maximum 3 cable glands.
 The actuators with local control can be equipped with maximum 2 cable glands.

Notes:

1. The thermal protection of the electric motors (F1) is built-in inside the electric motors as standard. See wiring with diagrams Z404t and Z78s.
2. Torque switching is not fitted with a mechanical device

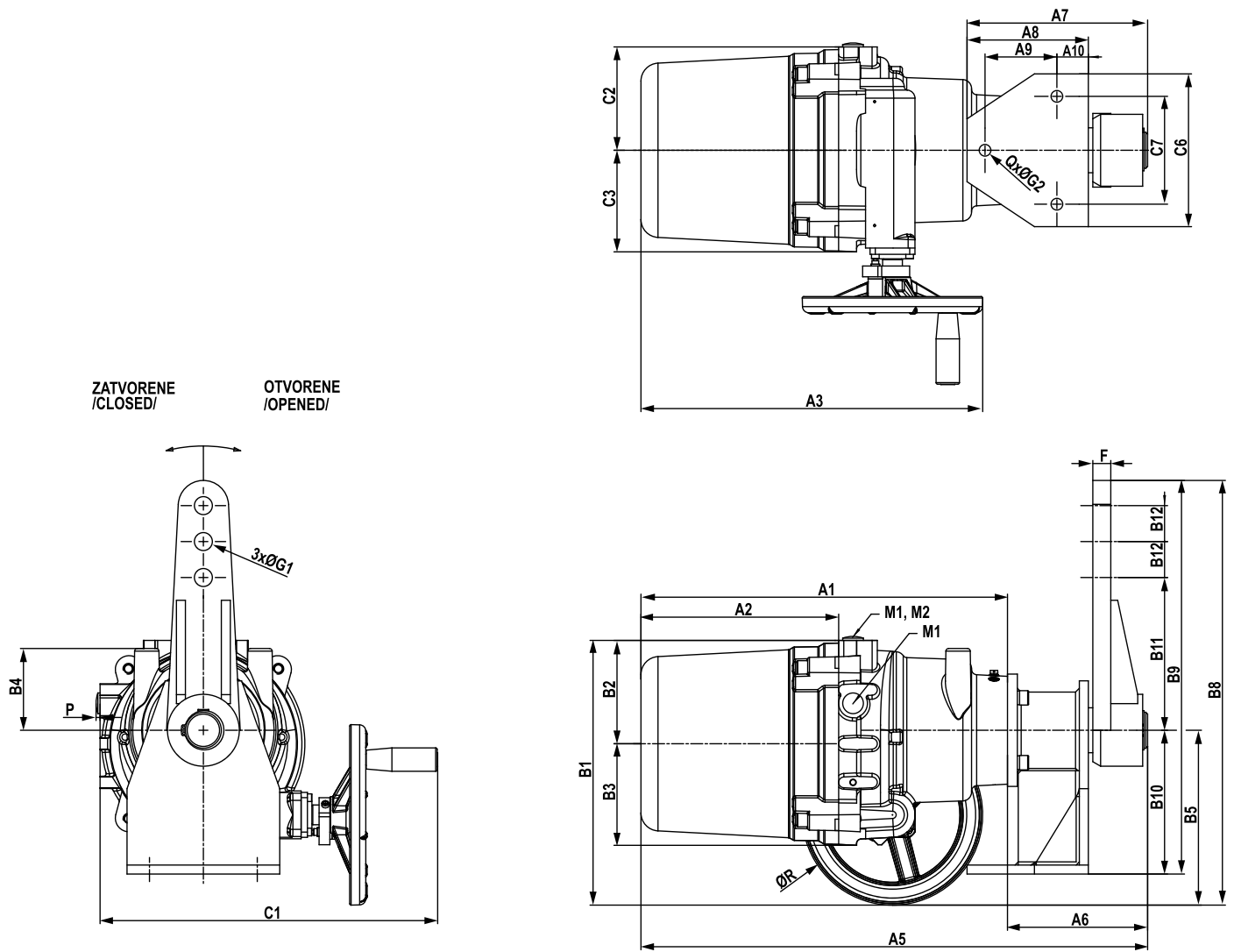
Legend:

Z5c.....connection of single potentiometer
 Z6c.....connection of double potentiometer
 Z10g.....connection of CPT or electronic position transmitter - 2 - wire, passive
 Z78s.....connection of 3-phase electric motor and space heater
 Z257j.....connection of electronic position transmitter - 3 - wire, passive
 Z257k.....connection of electronic position transmitter - 3 - wire, passive
 Z260h.....connection of electronic position transmitter - 3 - wire, active
 Z260m.....position transmitter CPT, 3-wire, active
 Z260k.....connection of electronic position transmitter - 3 - wire, active
 Z269r.....connection of CPT or electronic position transmitter 2 wire - active
 Z403b.....connection of torque and position switches
 Z404t.....connection of 1-phase electric motor
 Z626f.....connection of 24 V AC/DC electric motor, torque switches, position switches, and additional position switches
 Z634h.....connection of 24 V DC electric motor, reversing board, torque switches, position switches, additional position switches and local control unit
 Z635f.....connection of torque switches, position switches, additional position switches and local control unit

Legend:

B1.....single potentiometer
 B2.....double potentiometer
 B3.....CPT or electronic position transmitter
 B3a.....capacitive current transmitter (CPT)
 B3b.....DCPT current transmitter
 E1.....space heater
 F1.....motor thermal protection
 F2.....space heater thermal switch
 F3.....reversing board fuse
 I / U.....current / voltage output signal
 M.....electric motor
 R_L.....loading resistor
 S1.....torque switch „open“
 S2.....torque switch „closed“
 S3.....position switch „open“
 S4.....position switch „closed“
 S5.....additional position switch „open“
 S6.....additional position switch „closed“
 X.....terminal board
 XC.....connector
 X2.....reversing board terminal board
 X5.....local control terminal board
 RM2.....24 V reversing board
 U_N.....supply voltage of the transmitter source
 OPEN/STOP/CLOSE.....local control buttons
 REMOTE/OFF/LOCAL.....local control selection button

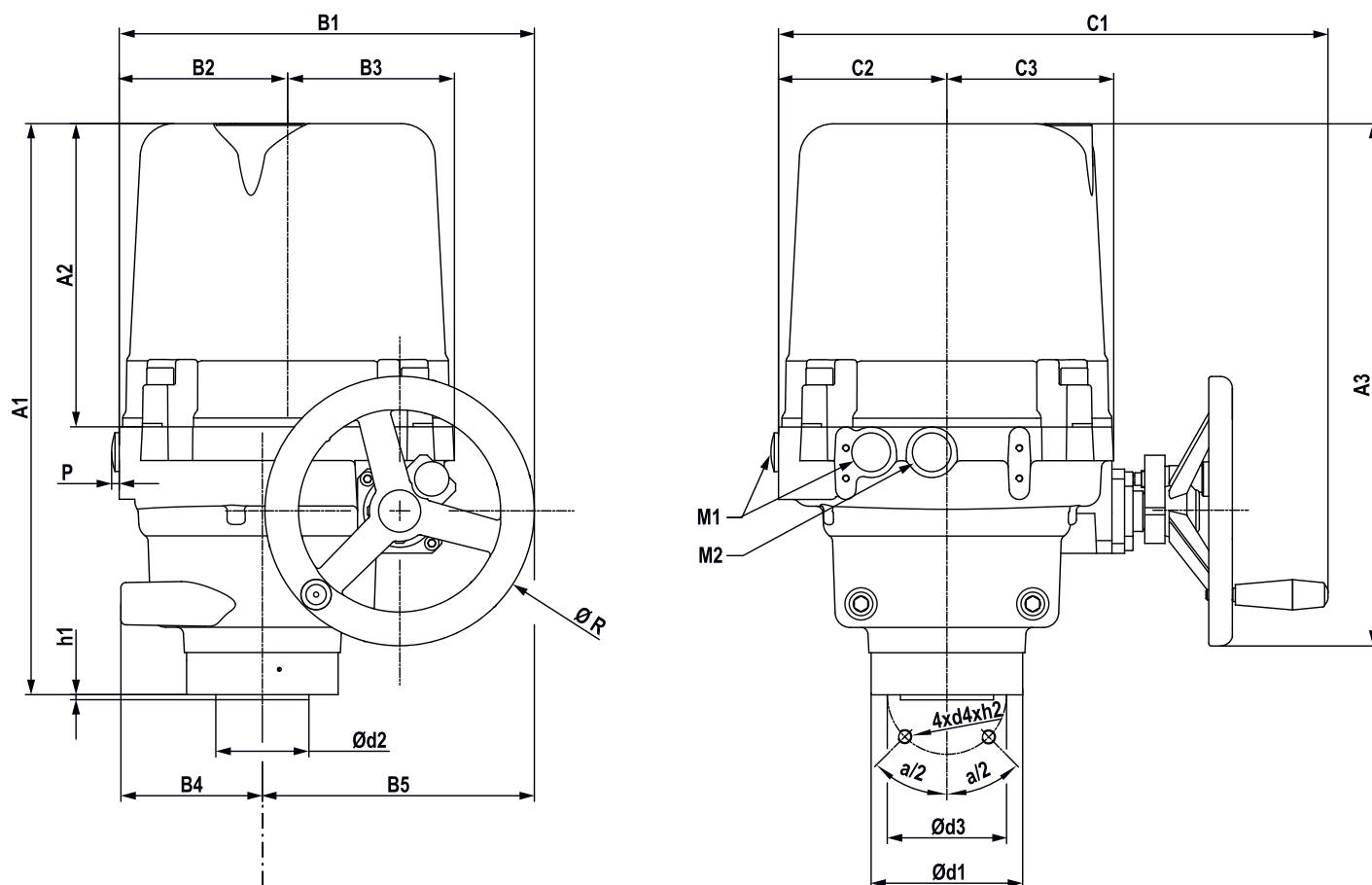
Dimensional drawing UP 1



Type	A1	A2	A3	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B8	B9	B10	B11	B12	C1	C2	C3	C6	C7
UP 1	339	180	310	404	65	95	58	-	28	247	100	99	84	162	337	375	200	120	20	326	100	99	160	90

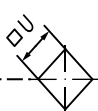
Type	F	G1	G2	M1	M2	P	Q	R
UP 1	14	13	12.6	M20x1.5	M20x1.5	4.5	2	160

Dimensional drawing UP 1

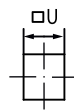


Coupling shape

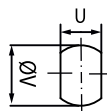
D-xx



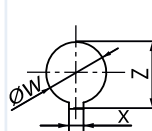
L-xx



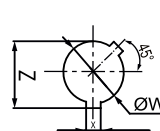
H-xx



V-xx



V-30

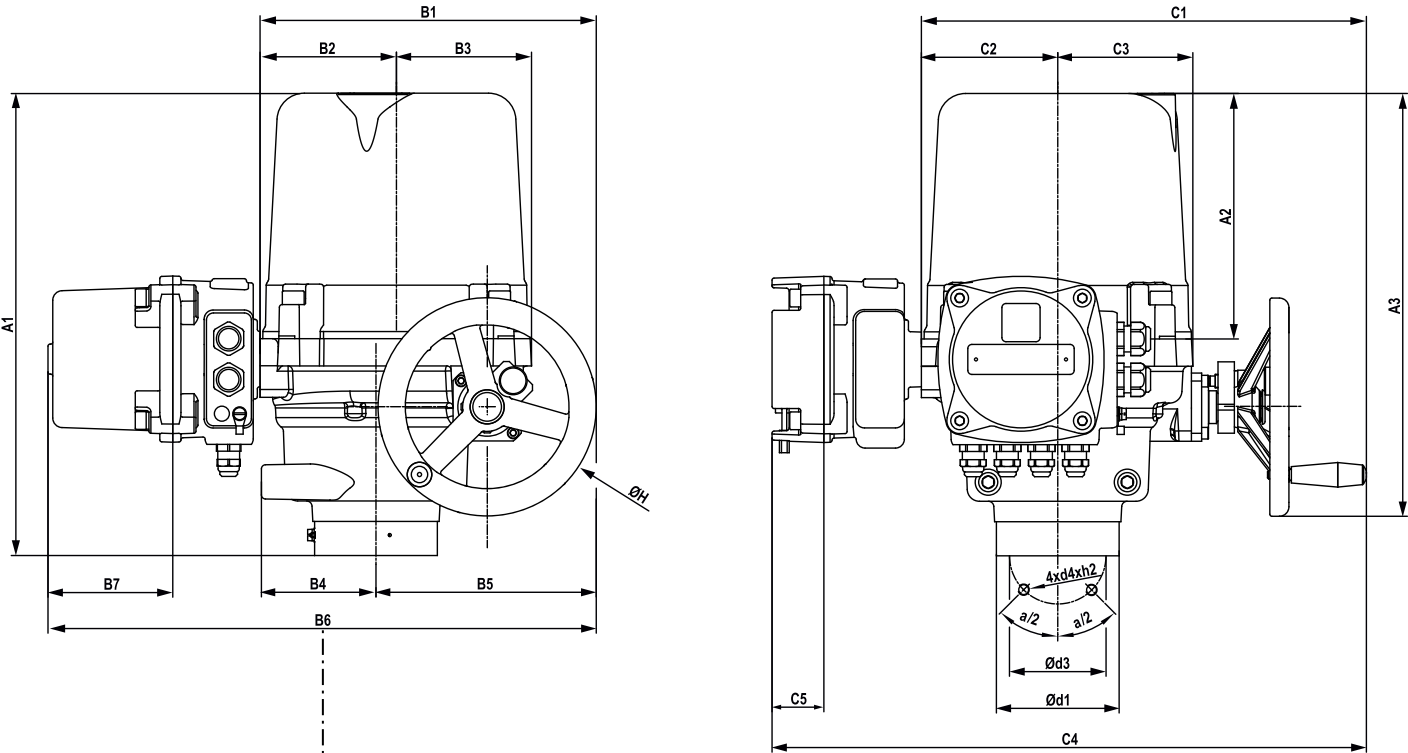


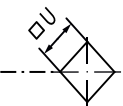
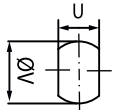
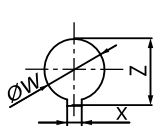
ISO	Dimension	ISO	Dimension	ISO	Dimension		ISO	Dimension		
D-xx	U	L-xx	U	H-xx	U	V	V-xx	W	Z	x
D-17	17	L-17	17	H-17	17	25	V-30	30	32.5	8
D-16	16	L-16	16	H-14	14	22	V-20	20	22.5	6
D-14	14	L-14	14	H-13	13	19	V-18	18	20.5	6
D-12	12	L-12	12	H-11	11	18	V-17	17	19.5	6
D-11	11	L-11	11	H-10	10	16				
D-9	9	L-9	9	H-8	8	13				

Type	Flange	d1	d2	d3	d4	h1	h2	a/2	A1	A2	A3	B1	B2	B3	B4	B5	C1	C2	C3	L5	M1	M2	P	R
UP 1	F05	90	-	50	M6	-	20	45°	354	180	310	247	100	99	84	162	326	100	98	37	M20x1.5	M20x1.5	4.5	160
	F07	90	-	70	M8	-	16		339															

Dimensional drawing UP 1

Dimensional drawings UP 1 with local control

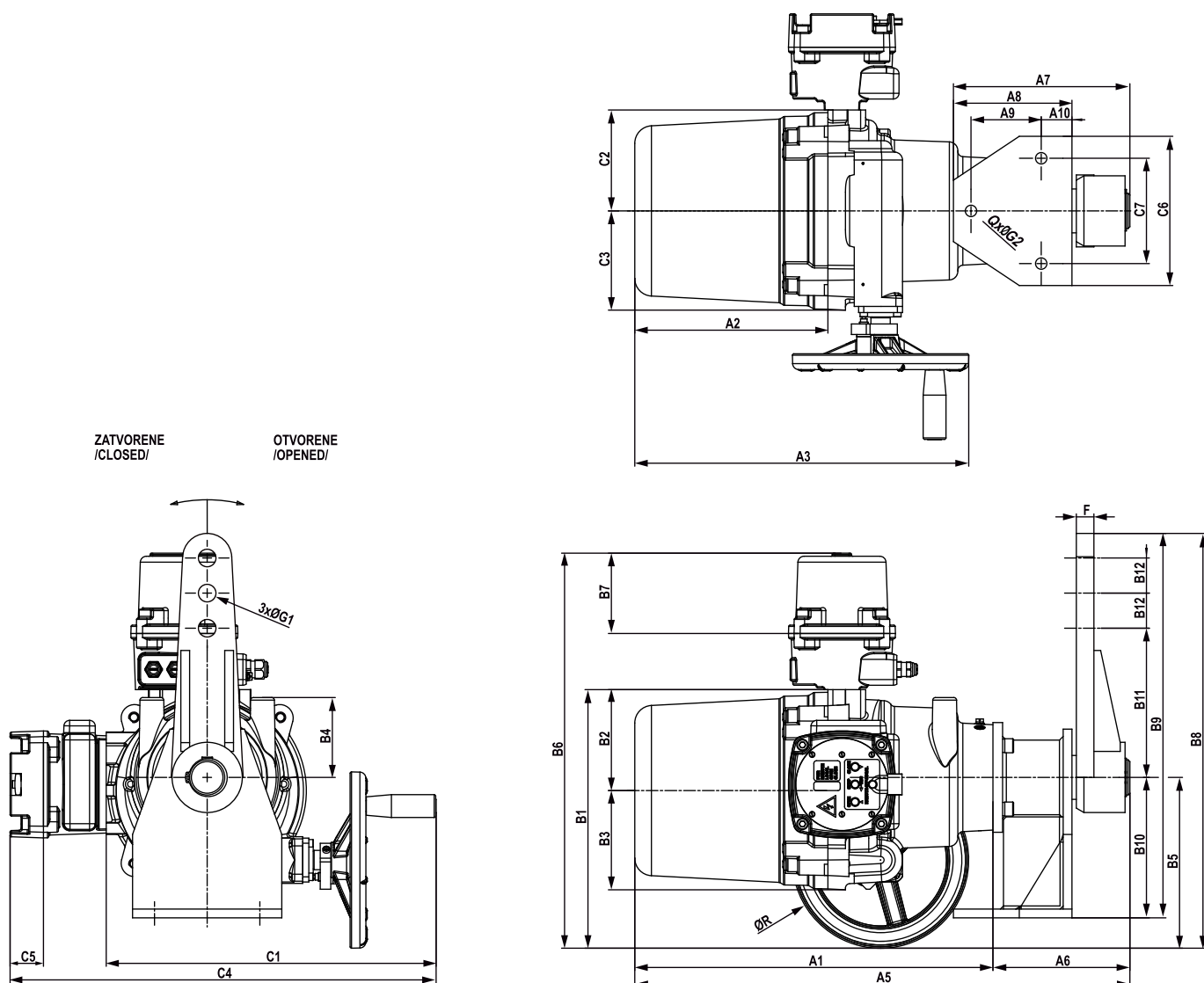


Coupling shape											
D-xx 		L-xx 		H-xx 			V-xx 				
ISO	Dimension	ISO	Dimension	ISO	Dimension	ISO	Dimension				
D-xx	U	L-xx	U	H-xx	U	V	V-xx	W	Z	X	
D-14	14	L-14	14	H-14	14	22	V-17	17	19.5	6	
D-17	17	L-17	17	H-17	17	25	V-18	18	20.5	6	
D-19	19	L-19	19	H-19	19	28	V-22	22	24.5	6	
D-22	22	L-22	22	H-22	22	32	V-28	28	30.9	8	
				H-13	13	19	V-36	36	39.3	10	
							V-42	42.0	45.1	12	

Type	Flange	d1	d2	d3	d4	h2	α/2	A1	A2	A3	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	L5
UP 1	F05	90	-	50	M6	20	45°	354	180	310	247	100	99	84	162	402	92	326	100	98	436	38	37
	F07	90	-	70	M8	20		339															

Dimensional drawing UP 1

Dimensional drawings UP 1 version standard and lever with local control

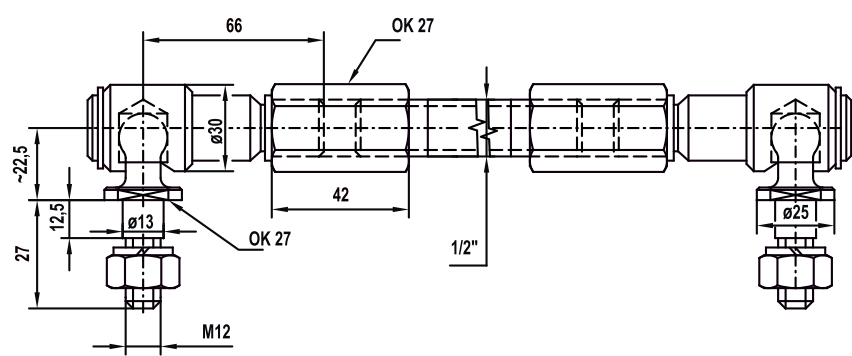


Type	A1	A2	A3	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B8	B9	B10	B11	B12	C1	C2	C3	C6	C7	F	G1	G2	Q	R
UP 1	339	180	310	404	65	95	58	-	28	247	100	99	84	162	337	375	200	120	20	326	100	99	160	90	14	13	12.6	2	160

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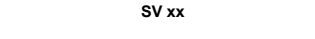
Dimensional drawing UP 1

Pull-rod TV 360



P-0210

Stand + Output shaft with key

SV xx		Type	H	S	U	V	Z	Y	Y1	Coupling shape
										
		UP 1	27.9	25	8	35	28	2	2	SV-25

P-2118