STANDARD
UP 2.5

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
- Thermal protection of motor
- Local position indicator
- Manual control
- Protection code IP 66 / IP 68

Specification table UP 2.5

Order code **344. 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	Z78t	1
	3x400 V AC with reversing unit	50 Hz	Z303m	2
	3x380 V AC	50 Hz	Z78t	M
	3x380 V AC with reversing unit	50 Hz	Z303m	N
	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

Next page

Order code **344. X - X X X X X / X X**

Electric motor 230 / 220 / 120 / 110 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	
-	-	-	1100 - 1800 Nm	1080 Nm	-	160 s/90°	135 s/90°	U
-	-	-	1000 - 1600 Nm	960 Nm	-	80 s/90°	66 s/90°	B
-	-	-	900 - 1400 Nm	840 Nm	-	40 s/90°	34 s/90°	G
800 - 1200 Nm	720 Nm	-	800 - 1200 Nm	720 Nm	480 Nm	160 s/90°	135 s/90°	C
						80 s/90°	66 s/90°	D
400 - 600 Nm	360 Nm	240 Nm				40 s/90°	34 s/90°	E
-	-	-				20 s/90°	17 s/90°	H
250 - 400 Nm	240 Nm	160 Nm	400 - 600 Nm	360 Nm	240 Nm	20 s/90°	17 s/90°	F
500 - 800 Nm	480 Nm	320 Nm	500 - 800 Nm	480 Nm	320 Nm	160 s/90°	135 s/90°	L
						80 s/90°	66 s/90°	N
-	-	-				40 s/90°	34 s/90°	P
300 - 500 Nm	300 Nm	200 Nm	300-500 Nm	300 Nm	200 Nm	160 s/90°	135 s/90°	M
						80 s/90°	66 s/90°	O
-	-	-				40 s/90°	34 s/90°	R

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

Transmitte		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
Electronic voltage [51]	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

Next page

Order code **344. X - X X X X X / X X**

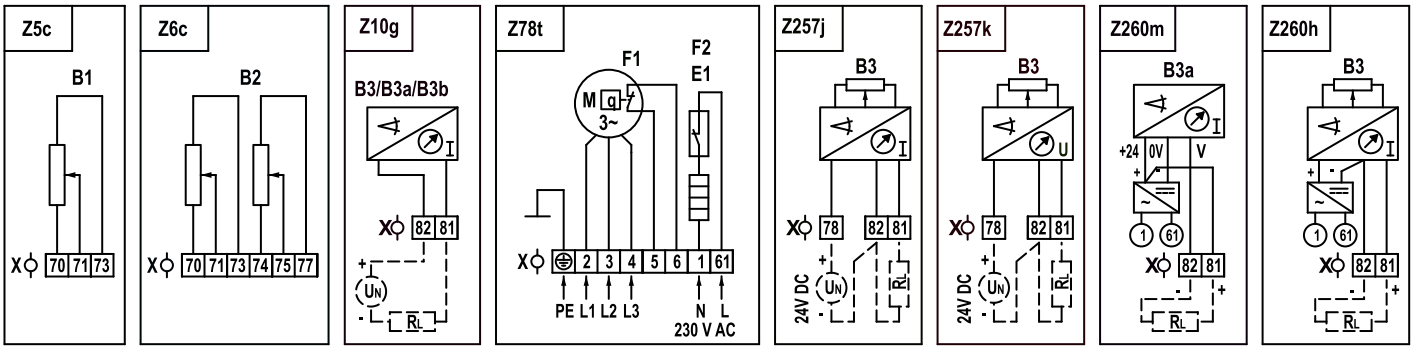
Mechanical connection	Flange size	Coupling shape		Dimensional drawing		
Flange ISO 5211	F14 (F10) [60]	D-36	36x36	P-2112 P-2114 [65]		A
		L-36				B
		H-36	36x48			C
		V-48	Ø48 [62]			D
		D-27	27x27			E
		L-27				F
		H-27	27x48 [62]			G
		V-42	Ø42 [62]			H
		D-22	22x22			P
		L-22				Q
		V-50	Ø50 [62]			M
		V-60	Ø60 [63]			V
		-	Ø10 [64]			W
		H-22	22x32			N
		V-30	Ø30			5
		V-40	Ø40			7
	F12 [61]	V-60	Ø60 [63]			8
	F12 [61]	H-22	22x32			T
Stand + Output shaft with key		SV-60	Ø60	P-2115 P-2117 [55]	P-2118	J
Stand + Lever		-	-		-	K
Stand + Lever + Pull-rod TV 50-1/25		-	-		P-1413/B	L

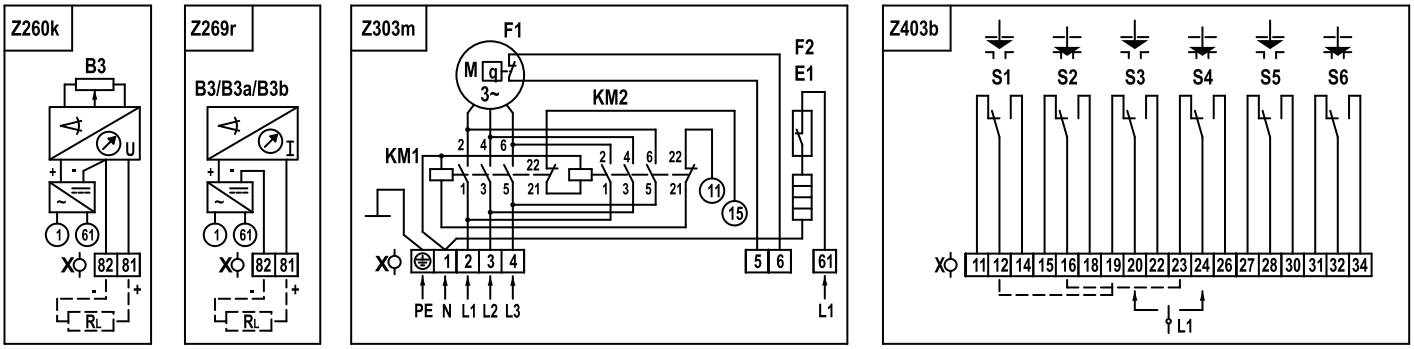
	Additional equipment	Wiring diagrams		
	No additional equipment; adjusted to max. switching-off torque and operating angle 90°.	-		
A	Adjustment of operating angle far required value	-	0	1
B	Adjustment of switch-off torque to required value	-	0	3
G	Electric local controls	Z635f, Z634h	1	5
H	Gold-coated contacts of microswitches D41, details after consultation with the manufacturer	-	4	0
Allowed combination and code of version: 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				

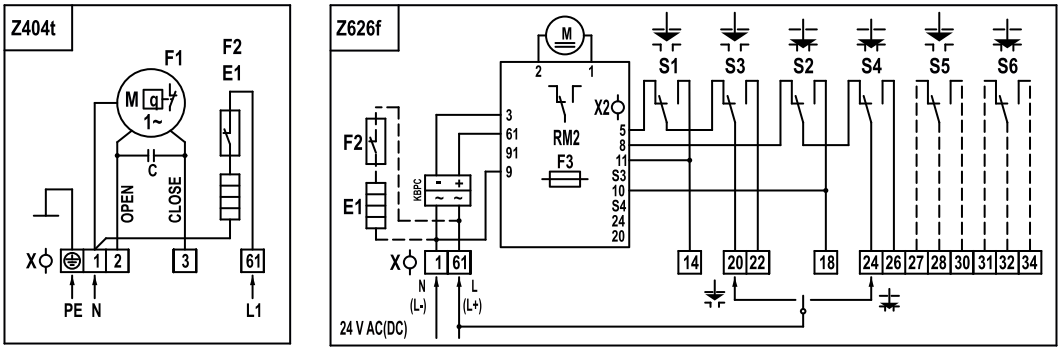
Notes:
10) Climate resistance according to ISO 9223 / EN ISO 12944-2
11) IP 68-10 m / 96 hours.
24) At a frequency of 60 Hz must be specified torques reduced 0.8 limes
31) Required switch-off torque must be stated in the order. If not specified it is adjusted to the maximum torque.
32) By this torque is possible to load the actuator under duly cycle S2-10 min, or S4-25%, 6-90 cycles per hour.
33) By this torque is possible to load the actuator under duly cycle S4-25%, 90- 1 200 cycles per hour.Valid far rated voltage, ambient temperature +40 °C and at average loading 35% of max.torque.
51) Not valid for temperatures of -60°C.
52) CPT - capacitive transmitter, DCPT 3M - electronic contactless transmitter.
60) Recommended load torque is max. 500 Nm for F10.
61) Recommended load torque is 500 Nm for H-16.
62) Connection bore directly within output shaft (without replaceable insert).
63) Bore far replaceable insert.
64) Replaceable insert wilh bore Ø10 mm
65) Valid for the actuator with local controls.

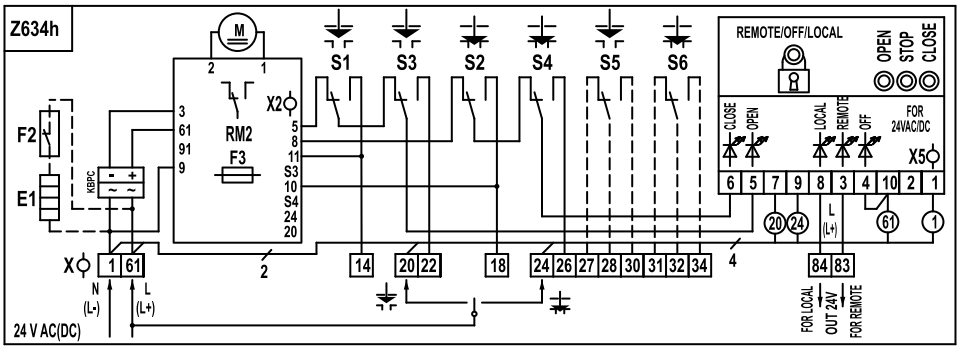
Wiring diagrams

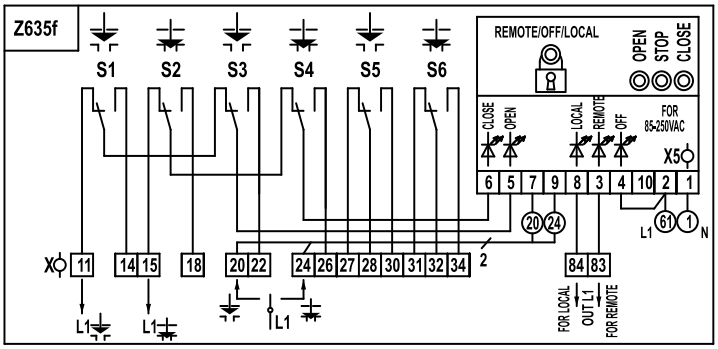
Terminal board connection











Electric connection:

to terminal board with 32 terminals, wire cross section max. 2,5 mm^2. Actuators without local control can be equipped with a maximum of 3 glands, actuators with local control with a maximum of 2 glands.

Notes:

1. Thermal protection of single-phase electric motors (Z404) is standardly built into the electric motor on the neutral wire electric motors (Z404) is standardly built into the electric motor on the neutral wire. In case of 3-phase electric motor version with thermal protection, it is leaded to the terminals 5 and 6 (Z78t).
2. Torque switching is not fitted with mechanical interlocking device

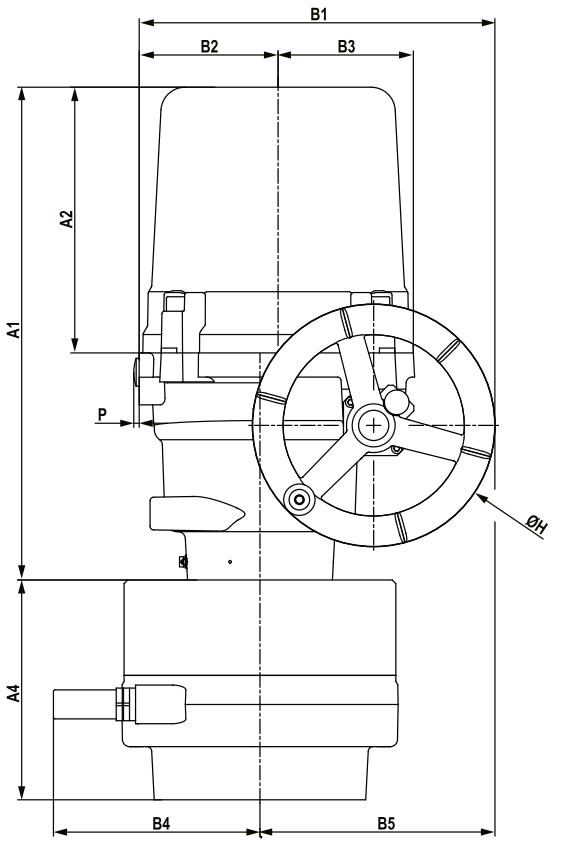
Legend:

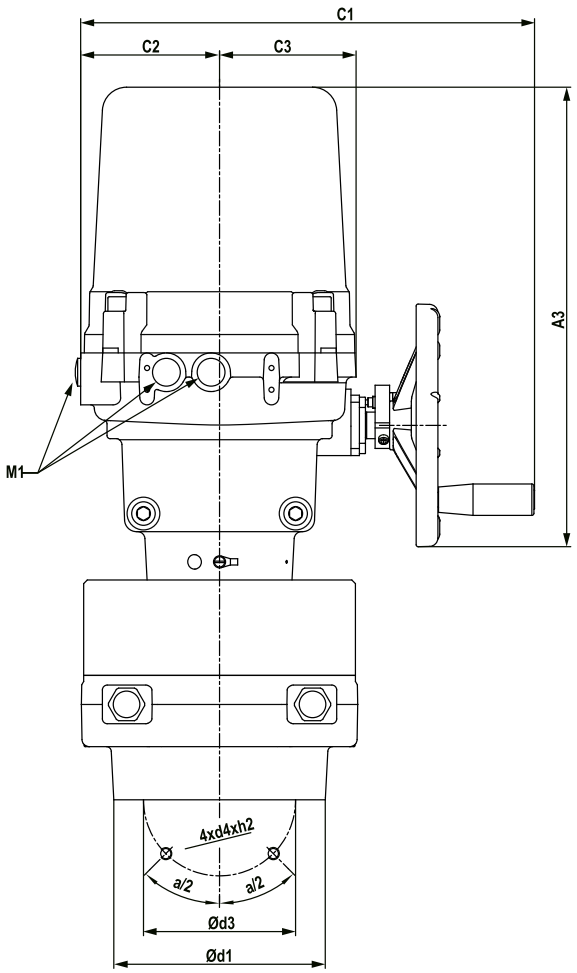
Z5c.....connection of single potentiometer
Z6c.....connection of double potentiometer
Z10g.....connection of CPT or electronic position transmitter - 2 - wire, passive
Z78t.....connection of 3-phase electric motor, heating resistor and thermal protection output
Z257j.....connection of electronic position transmitter - 3 - wire, passive
Z257k.....connection of electronic position transmitter - 3 - wire, passive
Z260k.....connection of electronic position transmitter - 3 - wire, active
Z260h.....connection of electronic position transmitter - 3 - wire, active
Z260m.....position transmitter CPT, 3-wire, active
Z269r.....connection of CPT or electronic position transmitter - 2 wire - active
Z303m.....connection of 3 -phase electric motor with reverse contactor
Z403b.....connection of torque and position switches
Z404t.....connection of 1-phase electric moto
Z626f.....connection of reverse board, torque switches, position switches and additional position switches
Z634h.....connection of reverse 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:

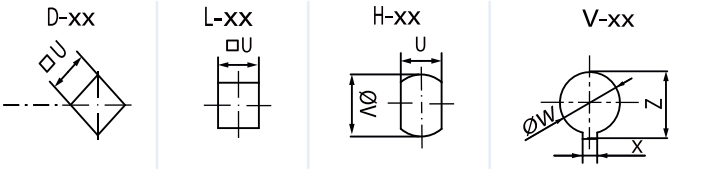
B1.....single potentiometer
B2.....double potentiometer
B3.....CPT or electronic position transmitter
B3a.....capacitive current transmitter (CPT)
B3b.....DCPT current transmitter
E1.....space heater
F1.....motor's thermal protection
F2.....space heater's thermal switch
F3.....reversing board fuse
I / U.....output signals current / voltage
M.....electric motor
R_L.....loading resistor
KM1, KM2.....reversing contactors
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 block
X5.....local control terminal block
RM2.....reversing board 24 V
U_N.....supply voltage of the transmitter source
OPEN/STOP/CLOSE....local control buttons
REMOTE/OFF/LOCAL..local control selection button

Dimensional drawing UP 2.5





Coupling shape



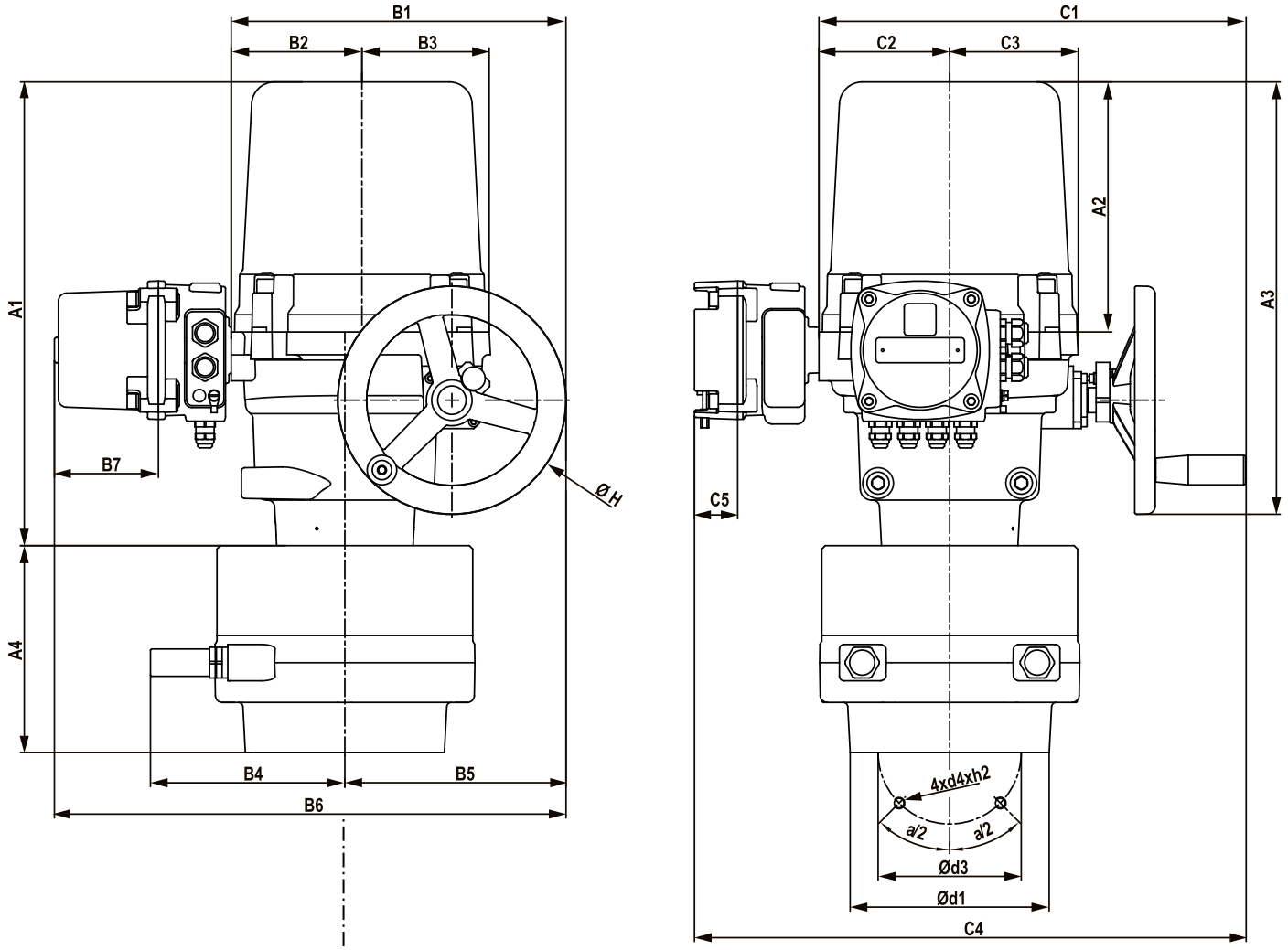
ISO	Dimension	ISO	Dimension	ISO	Dimension		ISO	Dimension		
D-xx	U	L-xx	U	H-xx	U	V	V-xx	W	Z	X
D-22	22	L-22	22	H-22	22	32	V-30	30	32.5	8
D-27	27	L-27	27	H-27	27	48	V-40	40	43.1	12
D-36	36	L-36	36	H-36	36	48	V-42	42.0	45.1	12
							V-48	48	51.5	14
							V-50	50	53.5	14
							V-60	60	64.4	18

Type	Flange	d1	d3	d4	h2	α/2	A1	A2	A3	A4	B1	B2	B3	B4	B5	C1	C2	C3	H	L5	P	M1
UP 2.5	F10/F14	175	102/140	M10/M16	25/35	45°	408	220	380	182	295	115	112	171	195	376	115	113	200	70	4.5	M20x1.5
	F12	175	125	M12	26	45°																

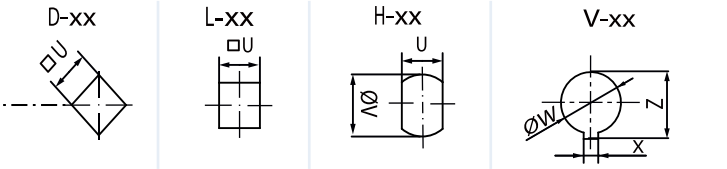
P-2112

Dimensional drawing UP 2.5

Dimensional drawings UP 2.5 with local control (and terminal box)



Coupling shape

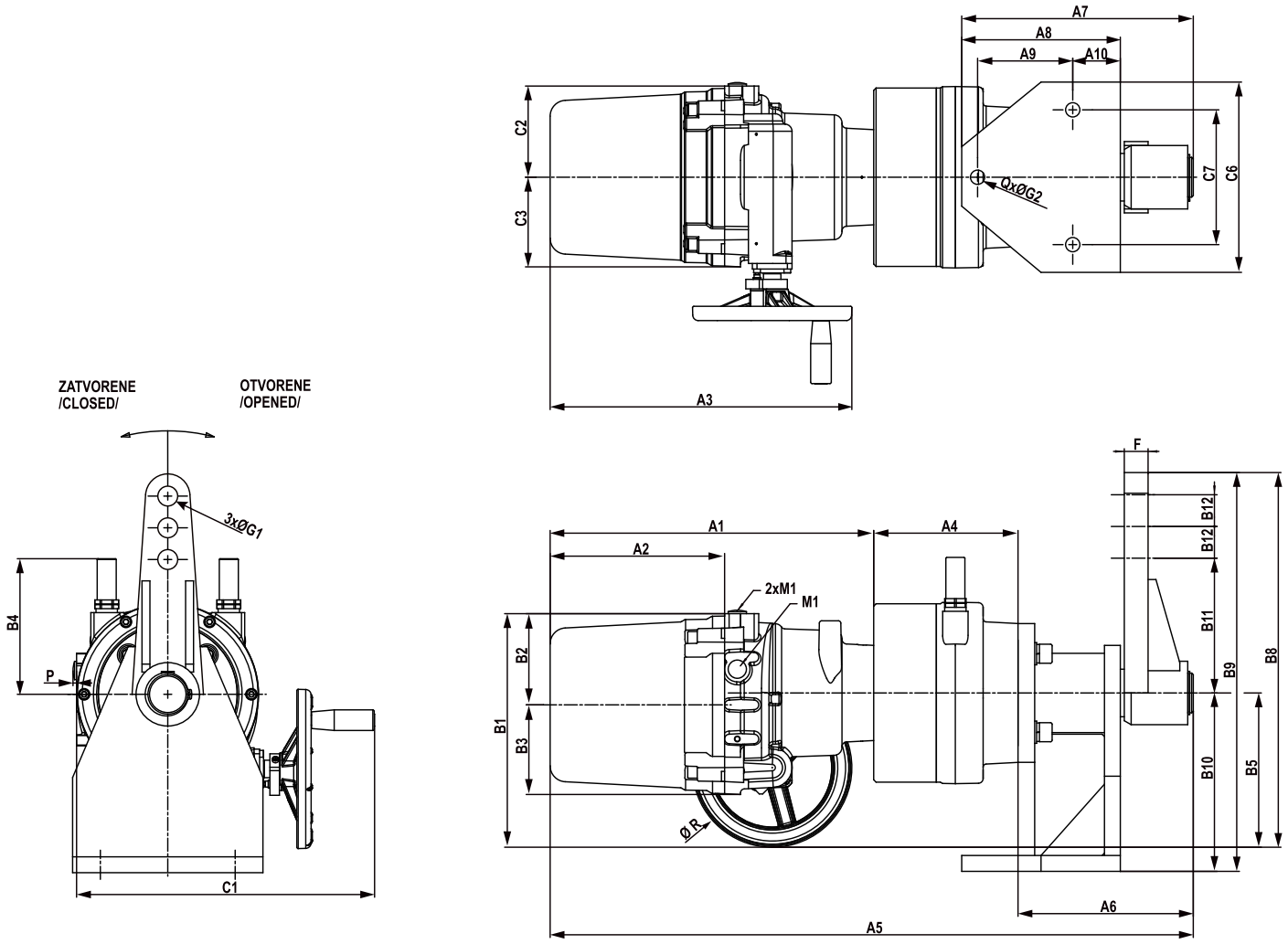


ISO	Dimension	ISO	Dimension	ISO	Dimension		ISO	Dimension		
D-xx	U	L-xx	U	H-xx	U	V	V-xx	W	Z	X
D-22	22	L-22	22	H-22	22	32	V-30	30	32.5	8
D-27	27	L-27	27	H-27	27	48	V-40	40	43.1	12
D-36	36	L-36	36	H-36	36	48	V-42	42.0	45.1	12
							V-48	48	51.5	14
							V-50	50	53.5	14
							V-60	60	64.4	18

Type	Flange	d1	d3	d4	h2	α/2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	H	L5
UP 2.5	F10/F14	175	102/140	M10/M16	25/35	45°	408	220	380	182	295	115	112	171	195	450	92	376	115	113	485	38	200	70
	F12	175	125	M12	26	45°																		

P-2114

Dimensional drawing UP 2.5



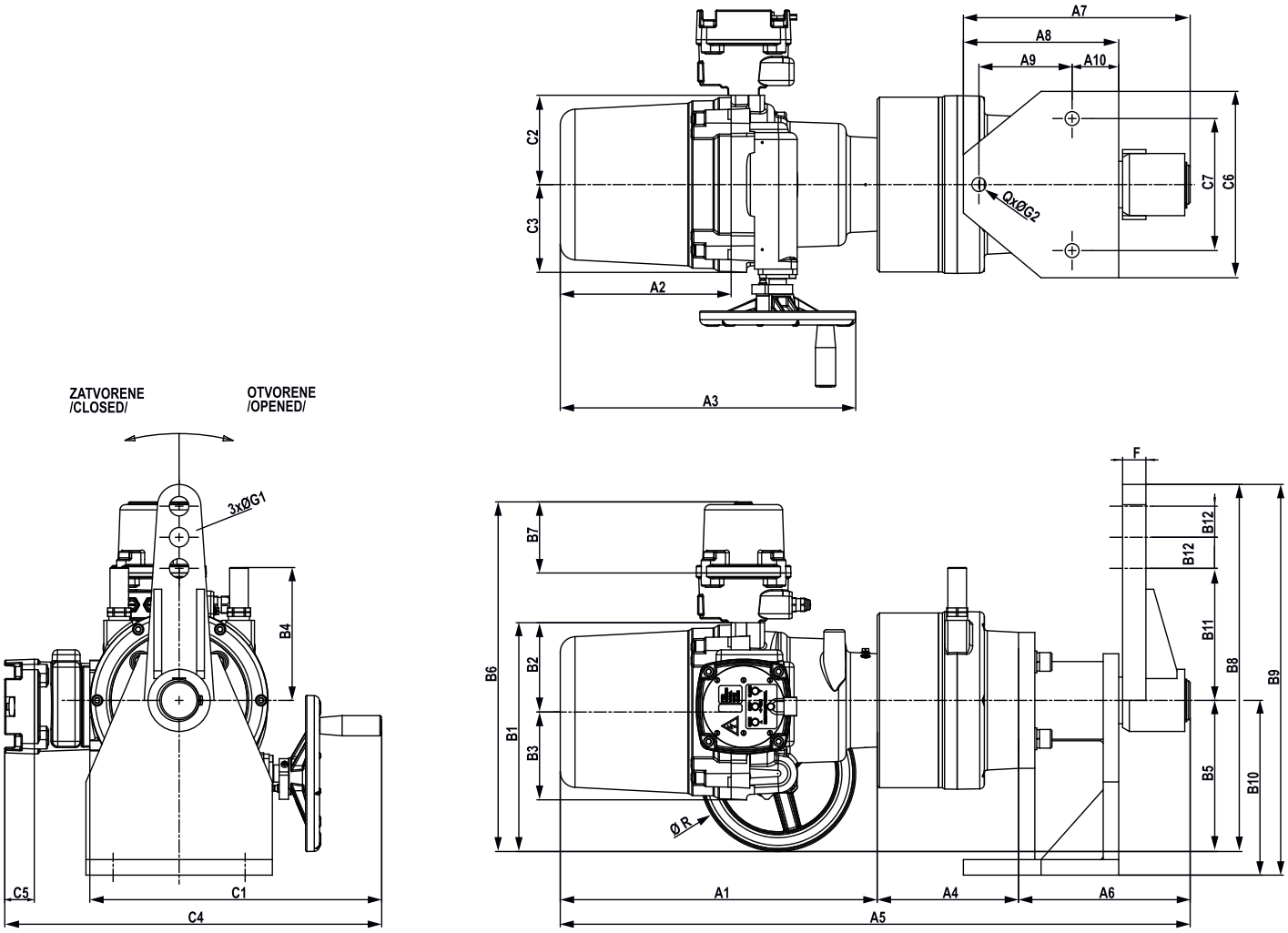
Type	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B8	B9	B10	B11	B12	C1	C2	C3	C6	C7
UP 2.5	408	220	380	182	811	221	292	200	120	60	295	115	113	171	195	473	503	225	170	40	376	115	113	240	170

Type	F	G1	G2	M1	P	Q	R
UP 2.5	30	25	18	M20x1.5	4.5	3	200

P-2115

Dimensional drawing UP 2.5

Dimensional drawings UP 2.5 version standand and lever with local control (and terminal box)



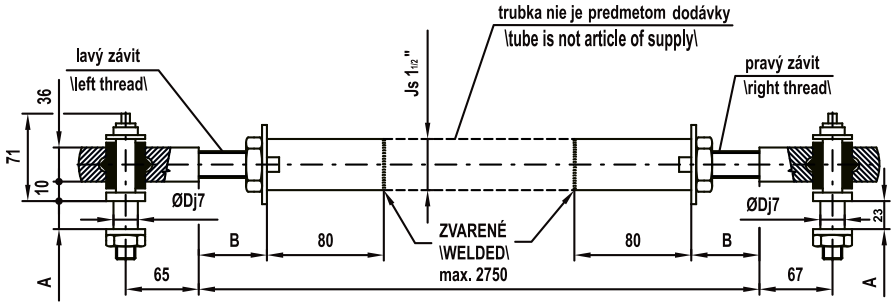
Type	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	C1	C2
UP 2.5	408	220	380	182	811	221	292	200	120	60	295	115	113	171	195	450	92	473	503	225	170	40	376	115

Type	C3	C4	C5	C6	C7	F	G1	G2	Q	R
UP 2.5	113	485	38	240	170	30	25	18	3	200

P-2117

Dimensional drawing UP 2.5

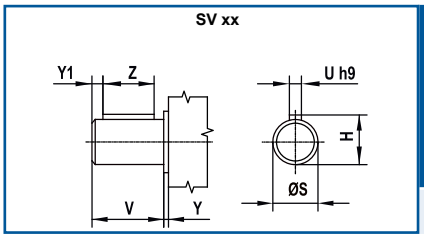
Pull-rod TV 50-1/25



Version	Pull-rod version	A	B	D
P-1413/B	TV 50-1/25	28	Min.30 Max.50	25

P-1413/B

Stand + Output shaft with key



Type	H	S	U	V	Z	Y	Y1	Coupling shape
UP 2.5	64.4	60	18	84	70	4	7	SV-60

P-2118