

STANDARD

UP 2.4

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
- Protection code IP 66 / IP 6



Specification table UP 2.4

Order code

343. 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

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343. 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 duty ³²⁾	Modulating duty ³³⁾		ON - OFF duty ³²⁾	Modulating duty ³³⁾	50 Hz	60 Hz	
500 - 800 Nm	480 Nm	320 Nm	500 - 800 Nm	480 Nm	320 Nm	160 s/90°	135 s/90°	C
						80 s/90°	66 s/90°	D
300 - 500 Nm	300 Nm	200 Nm				40 s/90°	34 s/90°	E
180 - 300 Nm	180 Nm	120 Nm	360 - 600 Nm	300 Nm	200 Nm	20 s/90°	17 s/90°	S
300 - 500 Nm	300 Nm	200 Nm	300 - 500 Nm	300 Nm	200 Nm	160 s/90°	135 s/90°	L
						80 s/90°	66 s/90°	N
						40 s/90°	34 s/90°	Q
180 - 300 Nm	180 Nm	120 Nm	180 - 300 Nm	180 Nm	120 Nm	160 s/90°	135 s/90°	M
						80 s/90°	66 s/90°	P
						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 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

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	Z10g	S
		3-wire	Z257j	T
		0 - 20 mA		V
		4 - 20 mA		Y
	Active ⁵⁹⁾	2-wire	Z269r	Q
		3-wire	Z260h	U
		0 - 20 mA		W
		4 - 20 mA		Z
Electronic voltage ⁵¹⁾	Passive	3-wire	Z257k	D
	Active ⁵⁹⁾		Z260k	R
Current ^{51) 52)} CPT	Passive	2-wire	Z10g	I
	Active ⁵⁹⁾	2-wire	Z269r	J
Current ^{51) 52)} DCPT 3M	Passive	2-wire	Z10g	2
	Active ⁵⁹⁾		Z269r	3

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343. X - X X X X X / X X

Mechanical connection	Flange size	Coupling shape		Dimensional drawing		
Flange ISO 5211	F10 / F12 ⁶⁰⁾	D-27	27x27	P-2112 P-2114 ⁶⁵⁾	A B C E F G H M N P V W	
		L-27				
		H-27	27x48 ⁶²⁾			
		D-22	22x22			
		L-22				
		H-22	22x32			
		V-42	Ø42 ⁶²⁾			
		V-45,5	Ø45,5 ⁵³⁾			
		H-16	16x22 ⁶¹⁾			
		H-19	19x28			
		V-50	Ø50 ⁶²⁾			
		-	Ø10 ⁶⁴⁾			
Stand + Output shaft with key		SV-50	Ø50	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 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) 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).

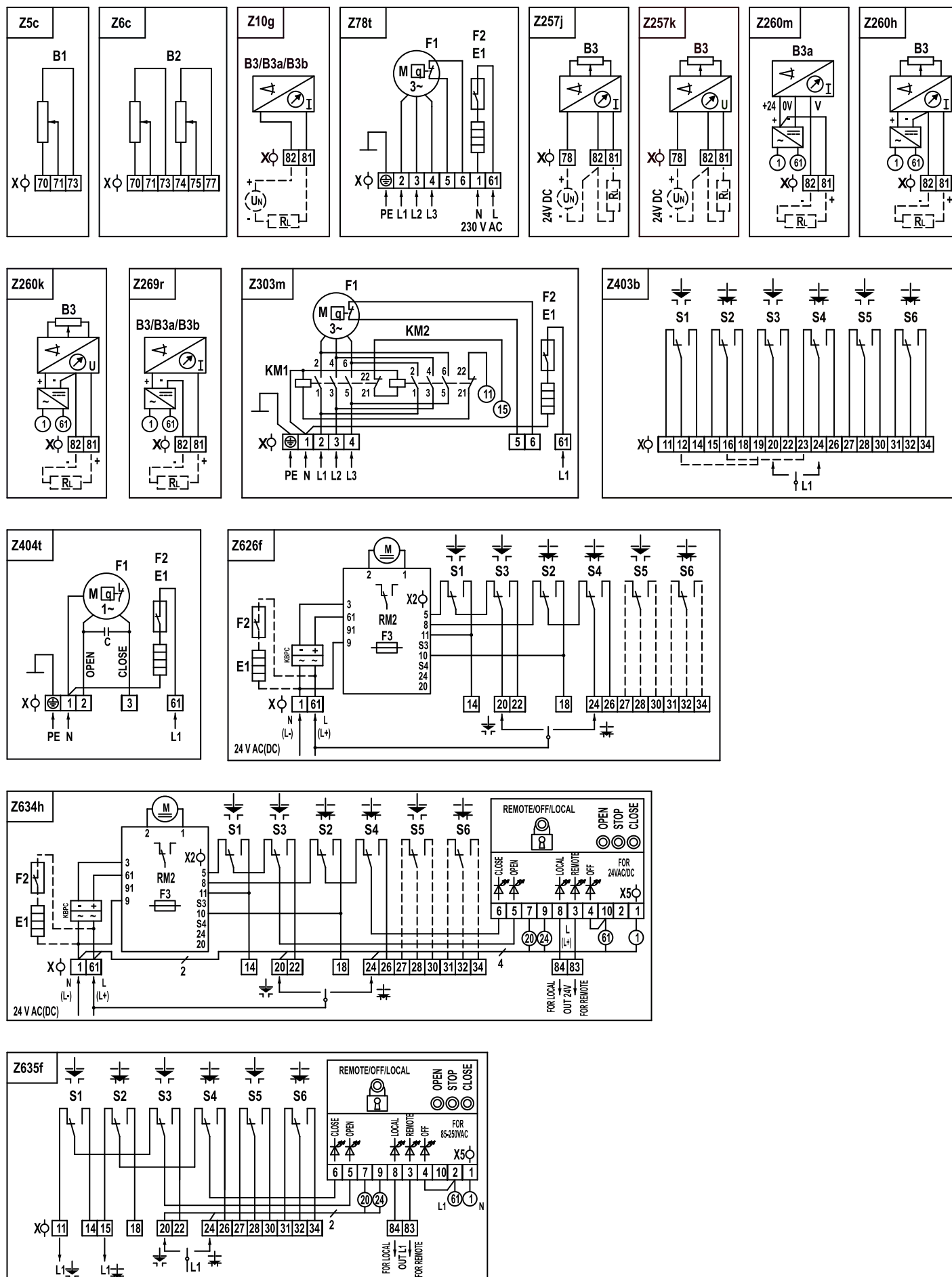
63) Bore far replaceable insert.

64) Replaceable insert with 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 mm². Actuators without local control can be equipped with a maximum of 3 glands, actuators with local control with a maximum of 2 glands.

Notes:

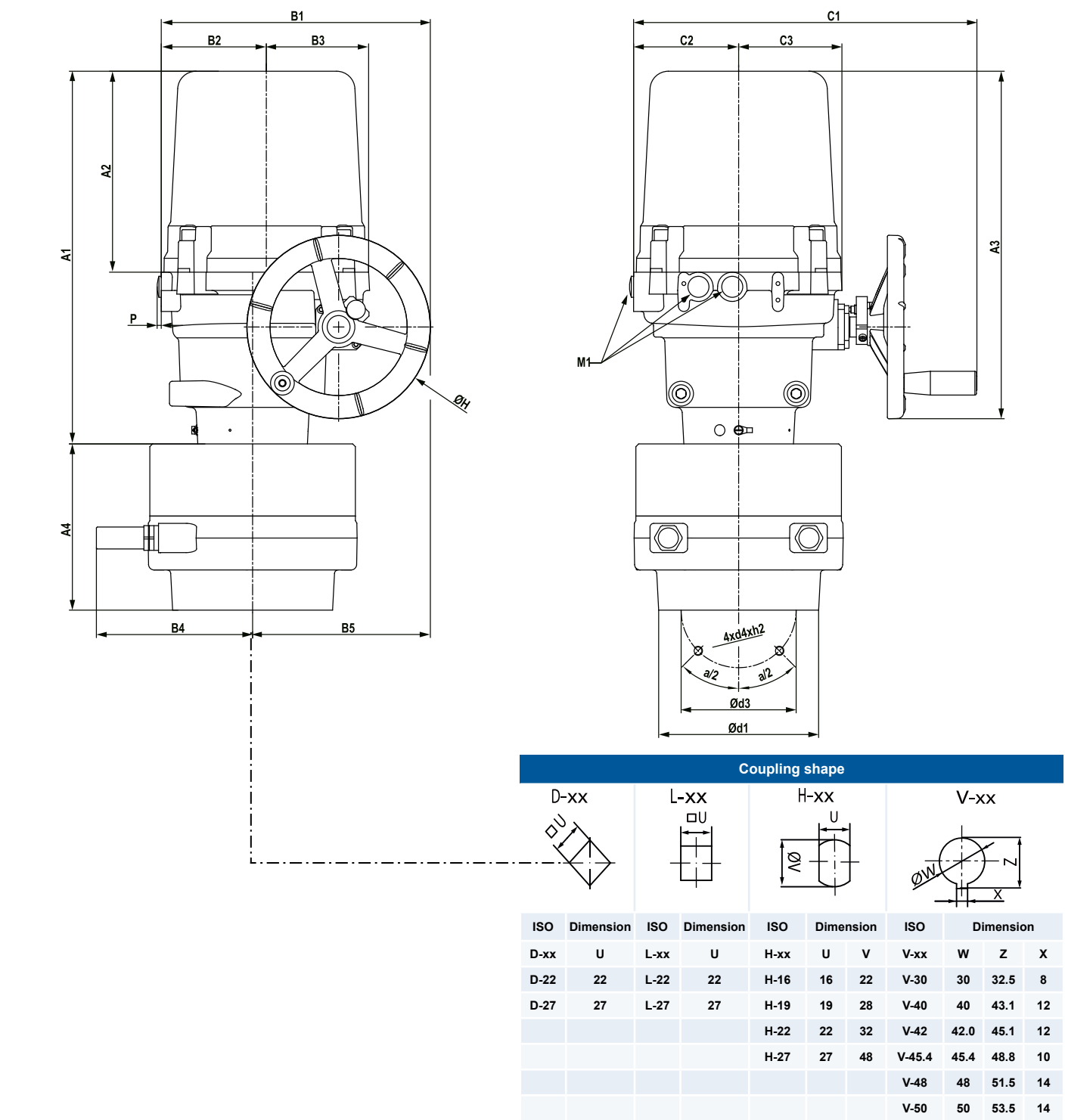
1. Thermal protection of single-phase electric motors (Z404) is standardly built into the electric motor on the neutral wire electric motors (Z404) is standardly built into the electric motor on the neutral wire. In case of 3-phase electric motor version with thermal protection, it is leaded to the terminals 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:

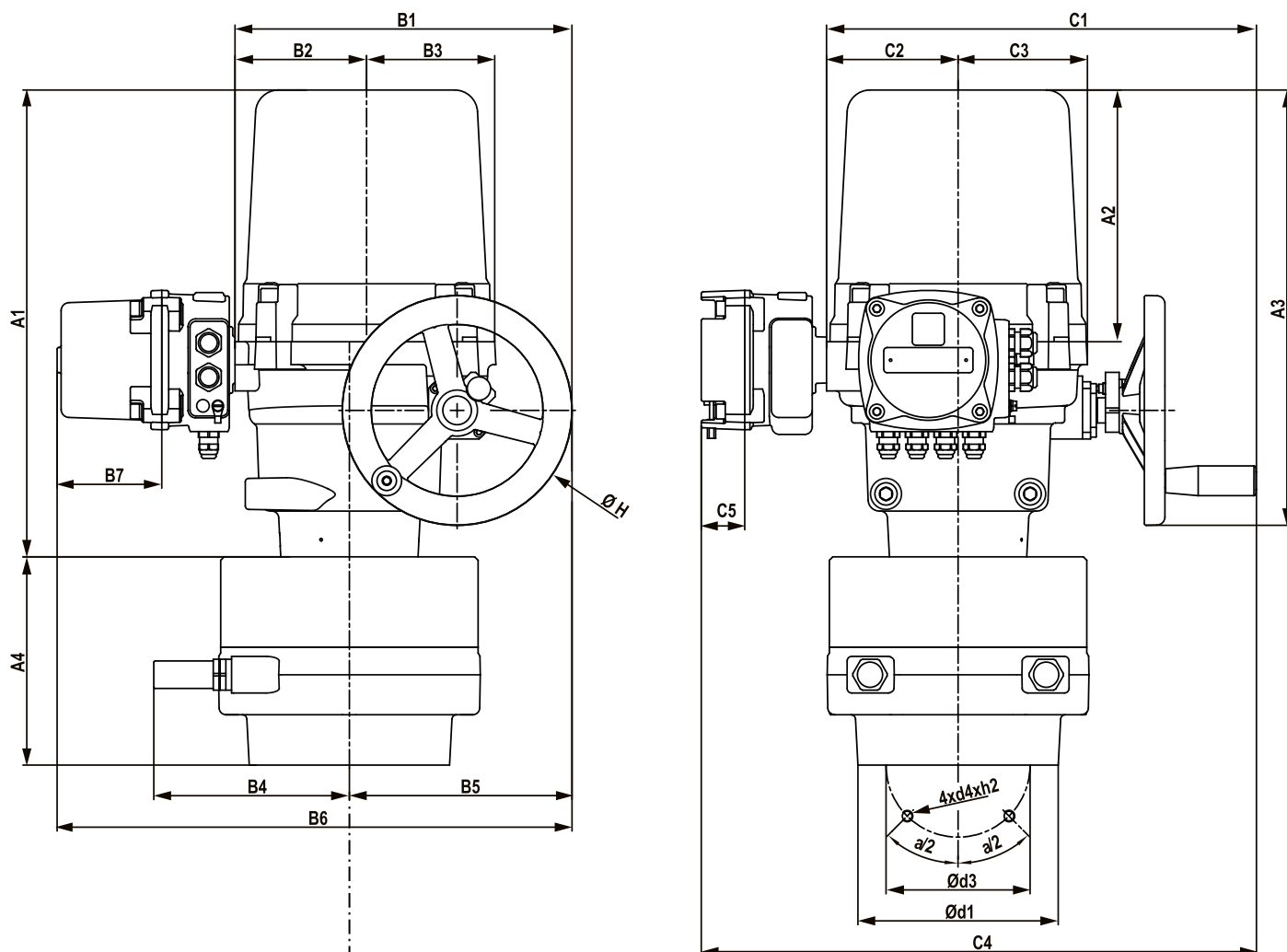
B1.....single potentiometer
 B2.....double potentiometer
 B3.....CPT or electronic position transmitter
 B3a.....capacitive current transmitter (CPT)
 B3b.....DCPT current transmitter
 E1.....space heater
 F1.....motor's thermal protection
 F2.....space heater's thermal switch
 F3.....reversing board fuse
 I / U.....output signals current / voltage
 M.....electric motor
 R.....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



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 2.4	F10/F12	150	102/125	M10/M12	25/30	45°	408	220	380	134	295	115	112	131	195	376	115	113	200	56	4.5	M20x1.5

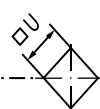
Dimensional drawing UP 2.4

Dimensional drawings UP 2.4 with local control (and terminal box)

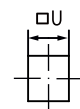


Coupling shape

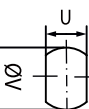
D-xx



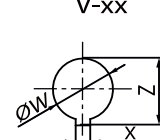
L-xx



H-xx



V-xx

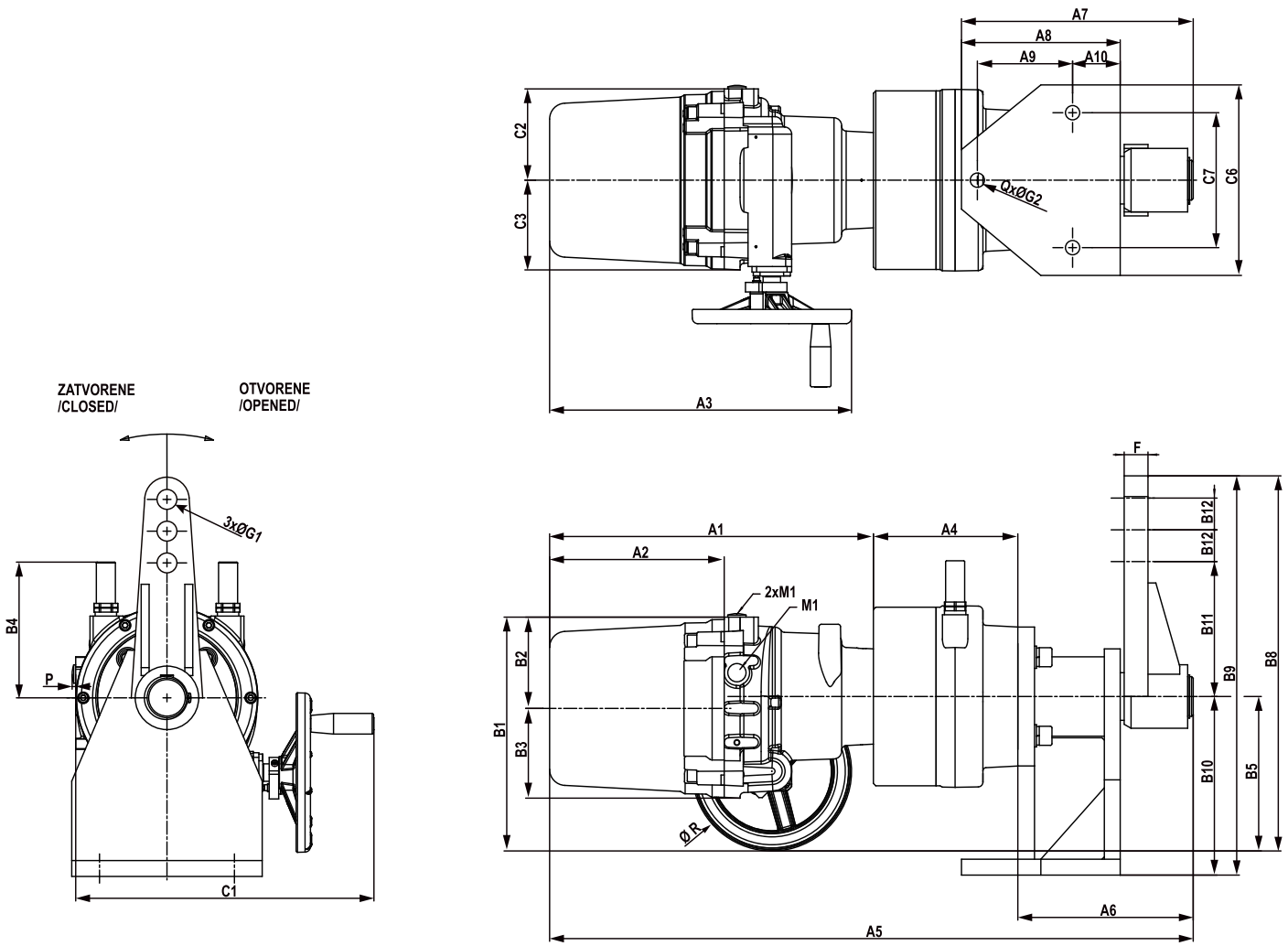


ISO	Dimension	ISO	Dimension	ISO	Dimension	ISO	Dimension
D-xx	U	L-xx	U	H-xx	U	V	V-xx
D-22	22	L-22	22	H-16	16	22	V-30
D-27	27	L-27	27	H-19	19	28	V-40
				H-22	22	32	V-42
				H-27	27	48	V-45.4
							V-48
							V-50

Type	Flange	d1	d3	d4	h2	a/2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6	B7
UP 2.4	F10/F12	150	102/125	M10/M12	25/30	45°	408	220	380	134	295	115	112	131	195	450	92

Type	C1	C2	C3	C4	C5	H	L5
UP 2.4	376	115	113	485	38	200	56

Dimensional drawing UP 2.4

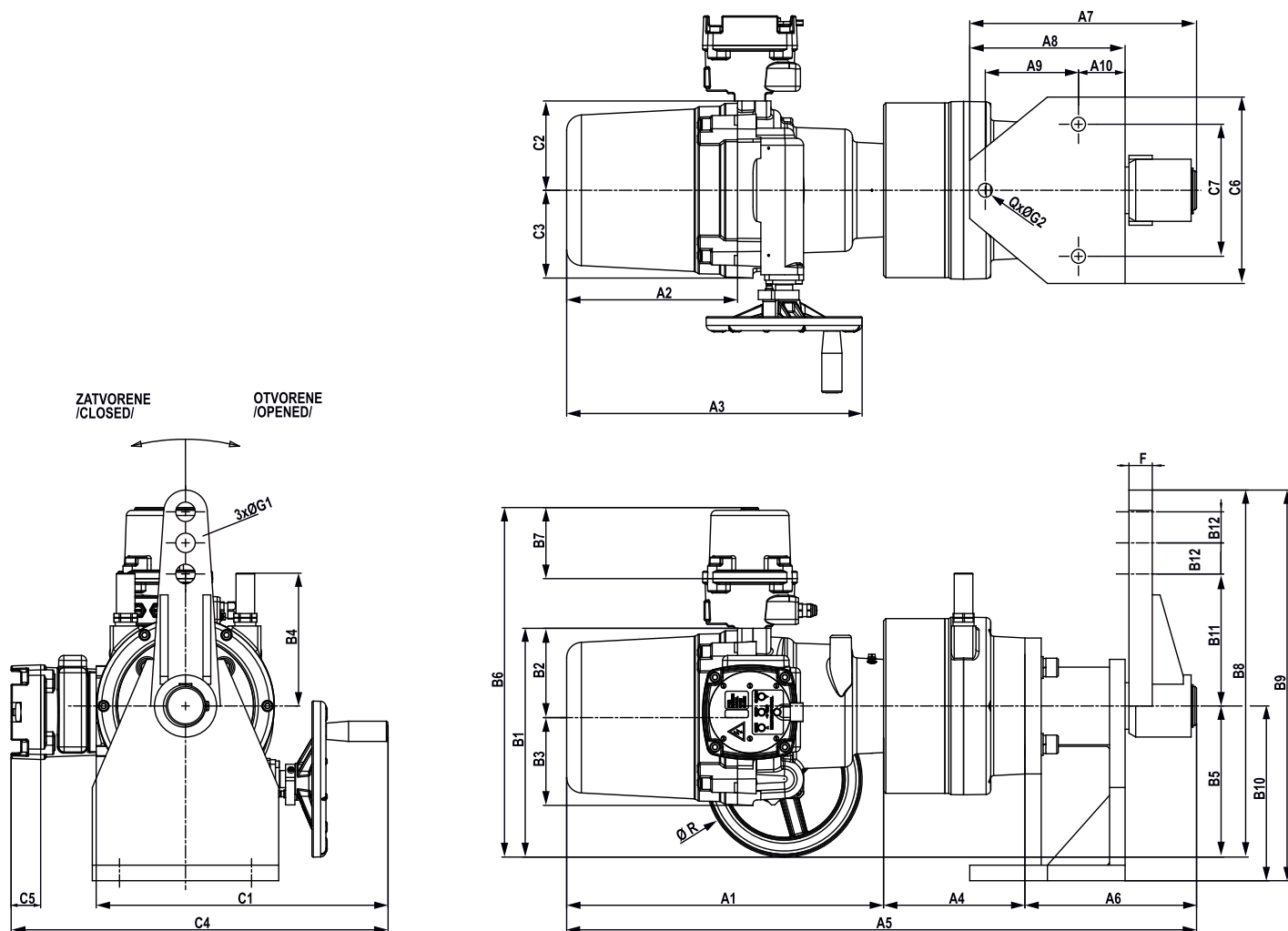


Type	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B8	B9	B10	B11	B12	C1	C2	C3	C6	C7
UP 2.4	408	220	380	134	753	211	291	200	120	60	295	115	113	131	195	473	498	220	170	40	376	115	113	228	170

Type	F	G1	G2	M1	P	Q	R
UP 2.4	30	25	17	M20x1.5	4.5	3	200

Dimensional drawing UP 2.4

Dimensional drawings UP 2.4 version standard and lever with local control (and terminal box)



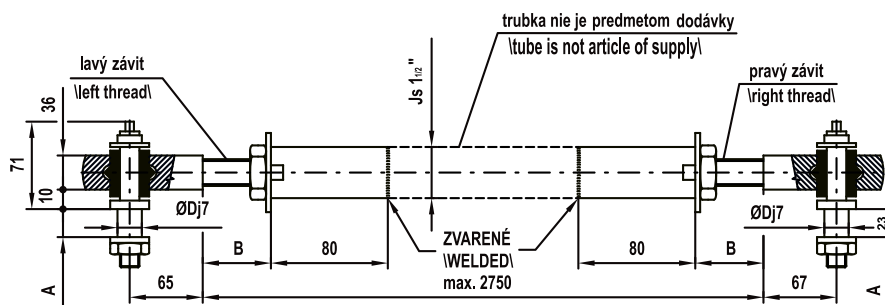
Type	A1	A2	A3	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	C1	C2	C3
UP 2.4	408	220	380	134	753	211	291	120	60	295	115	113	131	195	450	92	473	498	220	170	40	376	115	113

Type	C4	C5	C6	C7	F	G1	G2	Q	R
UP 2.4	485	38	228	170	30	25	17	3	200

P-2117

Dimensional drawing UP 2.4

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

SV xx		Type	H	S	U	V	Z	Y	Y1	Coupling shape
		UP 2.4	53.8	50	16	82	70	4	7	SV-50

P-2118