

STANDARD

UM 2

STANDARD EQUIPMENT

- Voltage 230 V AC
- Terminal board connection
- 2 torque switches
- 2 position switches
- 2 additional position switches
- Mechanical connection - flange
- Space heater with thermal switch
- Thermal protection of motor
- Local position indicator
- Manual control
- Protection code IP 66 / IP 68



Specification table UM 2

Order code

142. 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
	3x380 V AC	50 Hz	Z78t	M
	24 V AC	50 Hz	Z626e, Z634g	A
	24 V DC	-		
	24 V AC	60 Hz ²⁴⁾	Z404t	B
	110 V AC	60 Hz ²⁴⁾		
	120 V AC	60 Hz ²⁴⁾	Z404t	T

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Order code

142. X - X X X X X / X X

Electric motor 230/220 V AC; 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 duty ³²⁾	Modulating duty ³³⁾		ON - OFF duty ³²⁾	Modulating duty ³³⁾	50 Hz	60 Hz	
45 - 80 Nm	48 Nm	32 Nm	60 - 100 Nm	60 Nm	40 Nm	10 min ⁻¹	12 min ⁻¹	A
36 - 55 Nm	33 Nm	22 Nm	48 - 80 Nm	48 Nm	32 Nm	10 min ⁻¹	12 min ⁻¹	E
						15 min ⁻¹	18 min ⁻¹	B
24 - 40 Nm	24 Nm	16 Nm	36 - 60 Nm	36 Nm	24 Nm	10 min ⁻¹	12 min ⁻¹	F
						15 min ⁻¹	18 min ⁻¹	G
						20 min ⁻¹	24 min ⁻¹	C
18 - 30 Nm	18 Nm	12 Nm	18 - 30 Nm	18 Nm	12 Nm	10 min ⁻¹	12 min ⁻¹	H
						15 min ⁻¹	18 min ⁻¹	J
						20 min ⁻¹	24 min ⁻¹	K
-	-	-				40 min ⁻¹	48 min ⁻¹	D

Control board version	Spínače	Pracovné otáčky ^{44) 45)}		Schéma zapojenia	
		Bez vysílača	S odporovým vysílačom		
Mechanical control board	S1/S2, S3/S4, S5/S6	1 ÷ 330	1.5; 2.8; 5; 9; <u>16</u> ; 30; 55; 100; 180; 330	Z403b, Z626e Z635f, Z634g	1
	S1/S2, S3/S4, with tandem switches S13/S14	1 ÷ 330	1.5; 2.8; 5; 9; <u>16</u> ; 30; 55; 100; 180; 330	Z461a, Z626n Z636c, Z634j	K

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	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		0 - 10 V	Z260k	R
Current ^{51) 52)} CPT	Passive	2-wire	4 - 20 mA	Z10g	I
	Active	2-wire	4 - 20 mA	Z269r	J
Current ^{51) 52)} DCPT 3M	Passive	2-wire	4 - 20 mA	Z10g	2
	Active		4 - 20 mA	Z269r	3

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Order code

142. X - X X X X / X X

Mechanical connection	Flange size	Spigot / diameter	Coupling shape		Dimensional drawing				
Flange ISO 5210	F07	N	B3	Ø16	P-2113 ⁶³⁾	P-xxxx	A		
			B4	Ø25			B		
		Y/55	B1/B2	Ø28			Z		
	F10	N	B3	Ø20		P-1483	C		
		Y/70	B1/B2	Ø42			P-xxxx	Y	
		Y/70	C	14/Ø28/Ø42		P-1498	M		
		F07 ⁶¹⁾	Y/55	A		Max. TR26 ⁶⁶⁾		P-xxxx	D
	F10	N							
Non-standard	G0	Y/60 ⁶⁵⁾							
Non-standard	G0	Y/60	E	Ø20		P-2113 ⁶³⁾	P-xxxx	K	
			C	14/Ø28/Ø42				P-xxxx	L
	F07	N	-	Ø20			P-1497	N	
			-	Ø30				P	
			F10	-			Ø20	P-1498	Q
				-			Ø30		R
	ГОСТ P 55510	64x30/4xM6	-	МČ			11x11	P-2113 ⁶³⁾	P-1499
-			MK	35°/37°; Ø32/Ø25		P-xxxx ⁶⁷⁾	T		
Ø104/4xØ15		-	AČ	19x19		P-xxxx	U		
		-	AK	35°/37° Ø46/Ø28		P-xxxx ⁶⁸⁾	V		
				P-xxxx ⁶⁹⁾		W			

Additional equipment		Wiring diagrams			
	No additional equipment; adjusted to max. switching-off torque and operating angle 90°	-			
A	Adjustment of operating stroke for required value	-		0	1
B	Adjustment of switch-off torque to required value	-		0	3
G	Electric local controls	Z635f, Z636c, Z634g, Z634j		1	5
H	Gold coated contacts of microswitches D41 , details after consulting with producer	-		4	0
Allowed combination and code of version: A+B=04; A+G=17; A+K=23; A+H=41; B+G=16; B+K=24; B+H=42; A+B+G=19; A+B+K=27; A+B+H=44; A+G+K=30; A+G+H=47; B+G+K=31; B+G+H=48; A+G+K+H=36					

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 times

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 for rated voltage, ambient temperature +40 °C and at average loading 35% of max.torque.

44) Position switches S3, S4 are being set to specified number of revolutions. If it is not stated in the order, they will be set to 16 operating revolutions. When required settings are out of values listed in table, ohmic value of potentiometer will be reduced accordingly. If less then 75% of revolutions is required, value of output signals from electronic transmitter will be reduced accordingly as well.

45) For ON-OFF duty when choosing number of operating revolutions more than 100, please consider appropriate operating speed, so that actuator does not exceed duty cycle S2-10 min.

46) Platí pre ES s miestnym ovládaním.

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

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

61) Flange F07-A up to switch-off torque of 40 Nm

63) Applies to versions with local control.

65) Diameter Ø60 can be reached by turning the centring ring over.

66) Bore without a thread. Max. thread diameter for the rising spindle is Ø26.

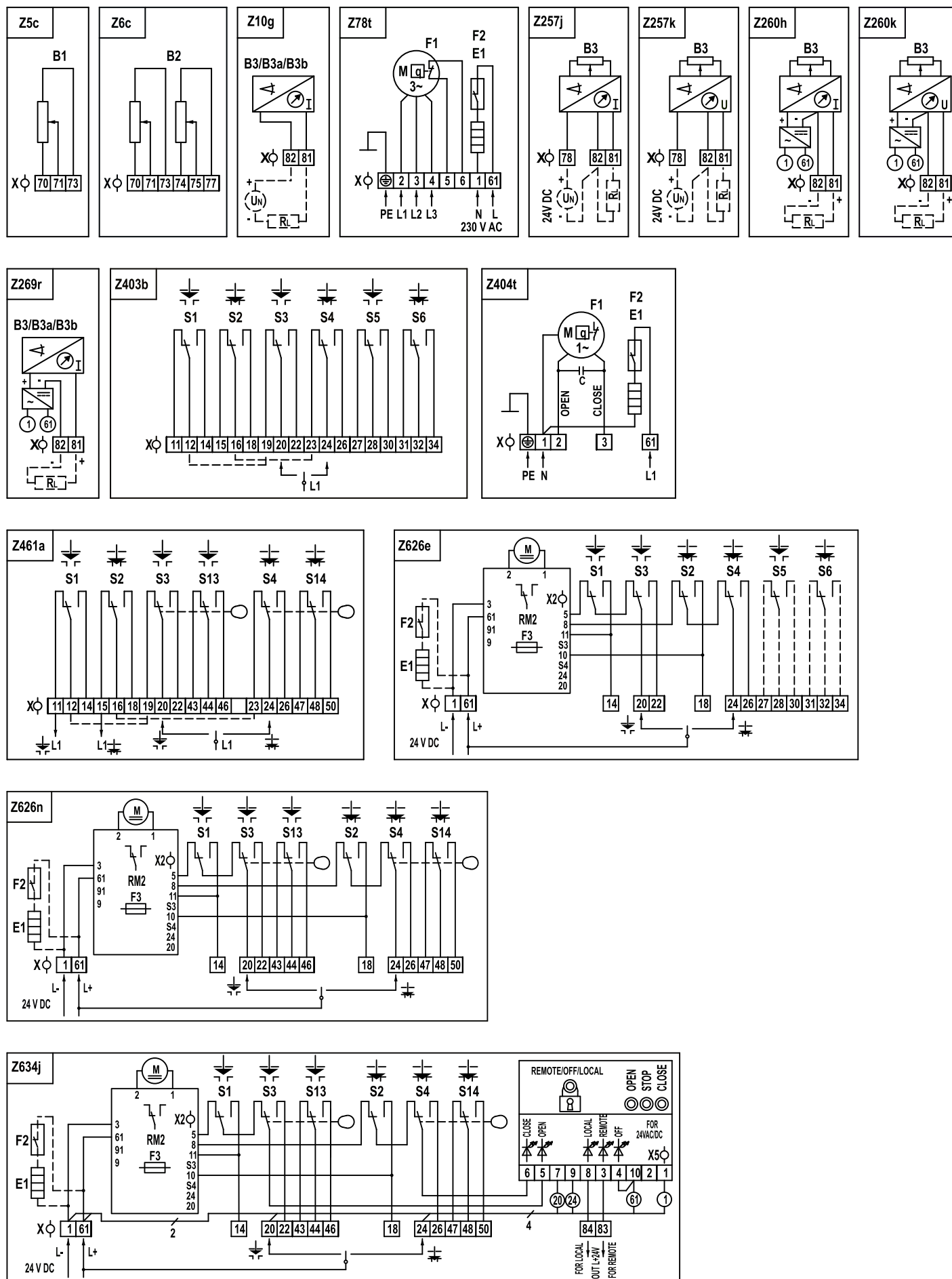
67) Max. raising spindle 50 mm.

68) Max. raising spindle 100 mm.

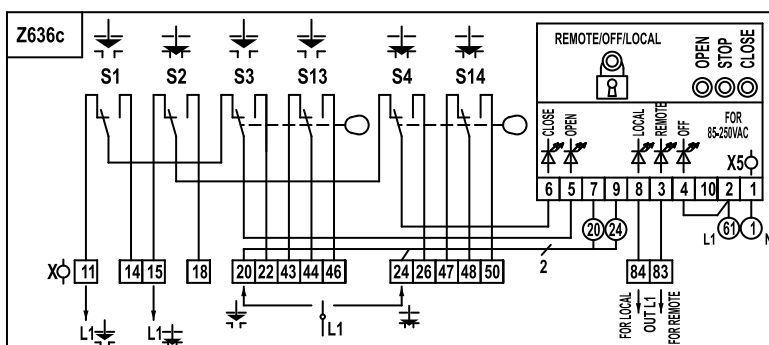
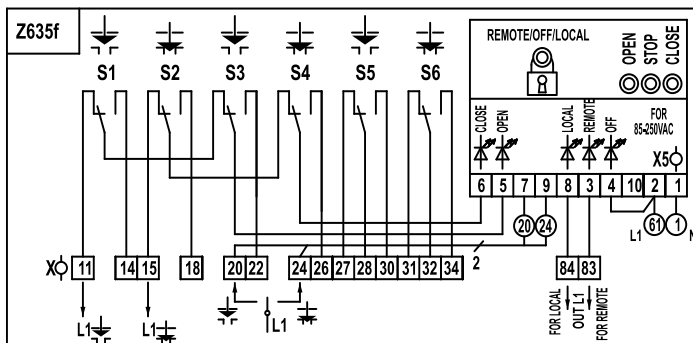
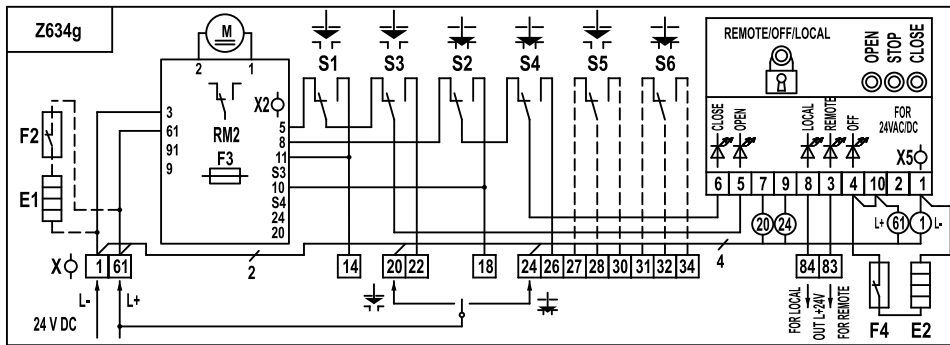
69) Max. raising spindle 150 mm.

Wiring diagrams

Terminal board connection



Wiring diagrams



Electric connection:

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

Notes:

1. Thermal protection of single-phase electric motors (Z404) is standardly built-in in the electric motor on the neutral cable. In case of 3-phase electric motor version with thermal protection, it is led to the terminals 5 and 6.
2. In case of version UM 2-Ex equipped with the double resistance transmitter, terminal connectors 30 and 34 of the additional position switches are not brought out.
3. Torque switching is not fitted with mechanical interlocking device..

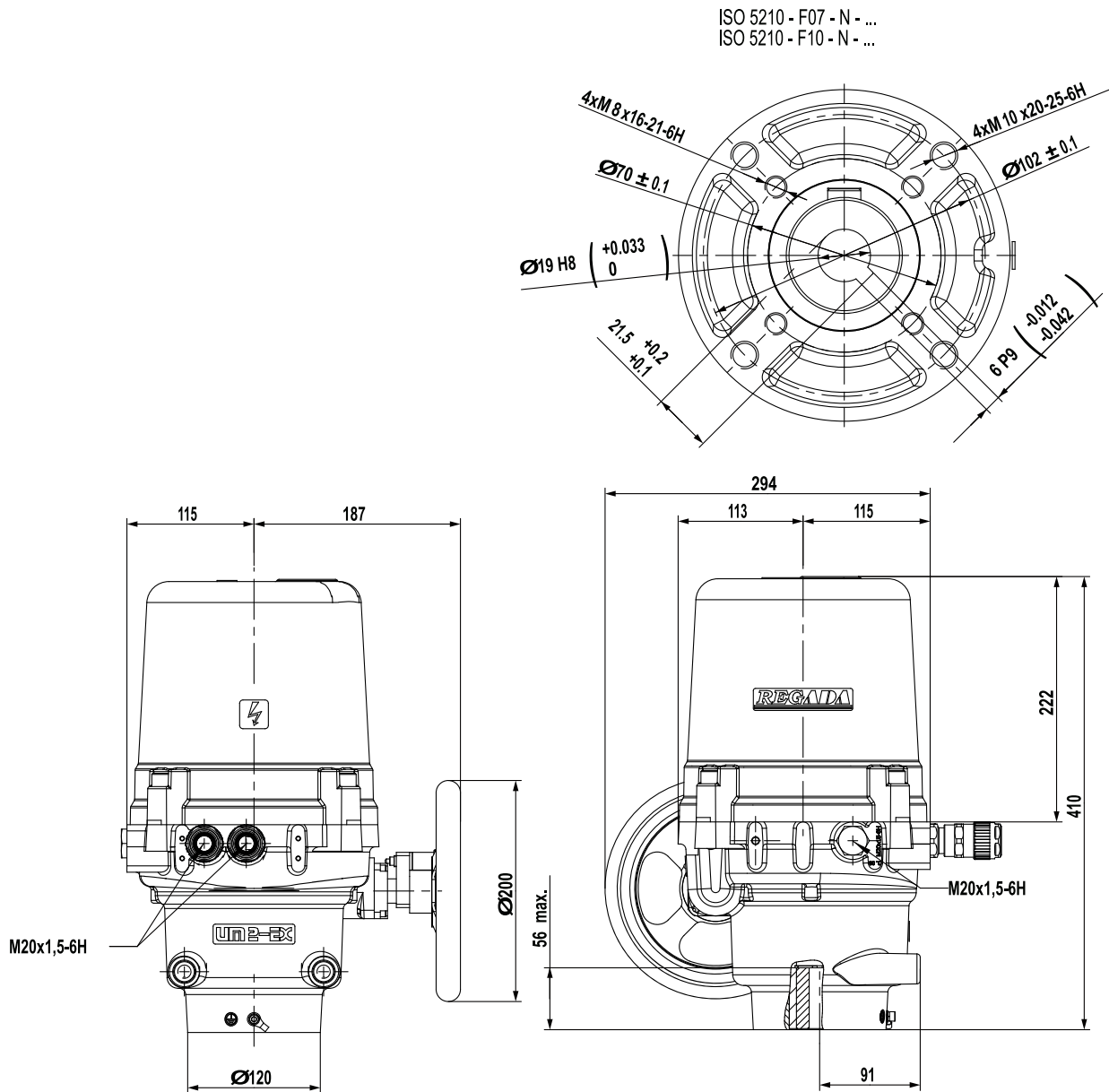
Legenda:

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
Z269r.....connection of CPT or electronic position transmitter - 2 wire - active
Z403b.....connection of torque and position switches
Z404t.....connection of 1-phase electric moto
Z461a.....connection of torque and tandem position switches
Z626e.....connection of electromotor 24 V AC/DC, reverse board 24 V, space heater with thermal switch, torque switches, position switches and additional position switches
Z626n.....connection of electromotor 24 V AC/DC, reverse board 24 V, space heater with thermal switch, torque switches, position switches and tandem position switches
Z634j.....connection of electromotor 24 V AC/DC, reverse board 24 V, space heater with thermal switch, torque switches, position switches, tandem position switches and local control unit
Z634g.....connection of electromotor 24 V AC/DC, reverse board 24 V, space heater with thermal switch, 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
Z636c.....connection of torque switches, position switches, tandem position switches and local control unit

Legenda:

B1.....single potentiometer
B2.....double potentiometer
B3.....CPT or electronic position transmitter
B3a.....capacitive current transmitter (CPT)
B3b.....DCPT current transmittte
E1.....space heater
F1.....motor's thermal protection
F2.....space heater's 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“
S13.....tandem position switch „open“
S14.....tandem position switch „closed“
X.....terminal board
XC.....connector
X2.....reversing board terminal block
X5.....local control terminal block
RM2.....reversal board 24 V
U_N.....supply voltage of the transmitter source
OPEN/STOP/CLOSE.....local control buttons
REMOTE/OFF/LOCAL..local control selection button

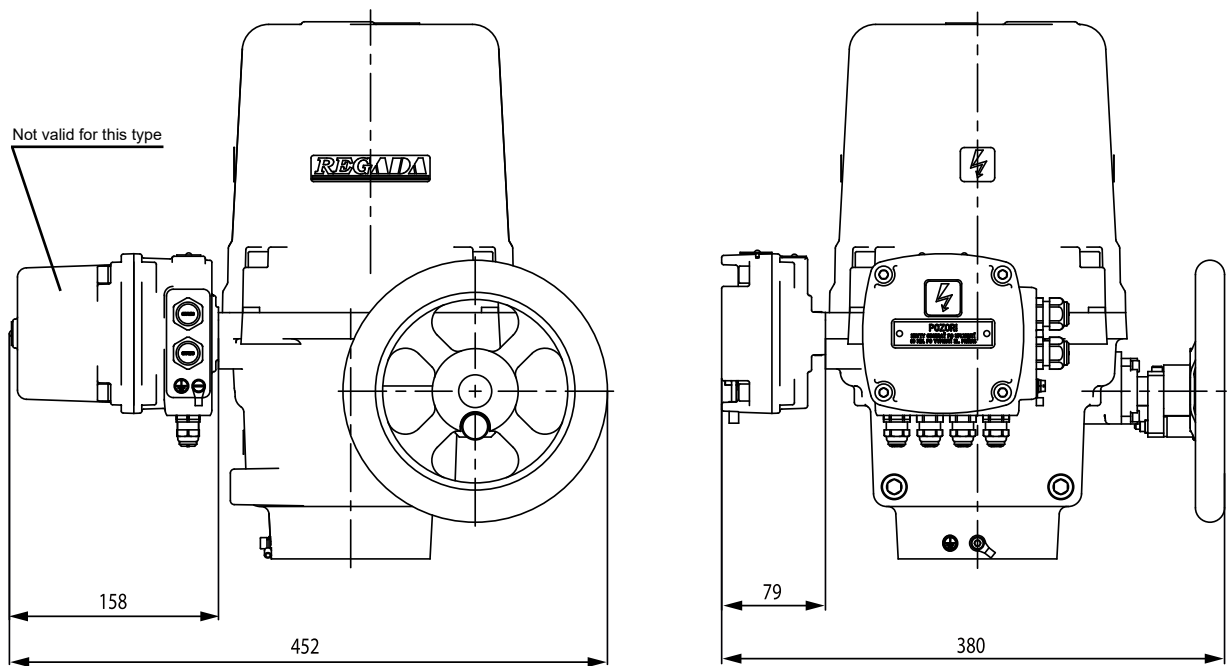
Dimensional drawing UM 2



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Dimensional drawing UM 2

Dimensional drawings UM 1 with local control



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