

STANDARD

UM 1

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 1

Order code

141. 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 duty ³²⁾	Modulating duty ³³⁾		ON - OFF duty ³²⁾	Modulating duty ³³⁾	50 Hz	60 Hz	
16 - 32 Nm	20 Nm	13 Nm	32 - 64 Nm	38 Nm	26 Nm	10 min ⁻¹	12 min ⁻¹	A
-	-	-	16 - 32 Nm	20 Nm	13 Nm	20 min ⁻¹	24 min ⁻¹	B
8 - 16 Nm	10 Nm	7 Nm	8 - 16 Nm	10 Nm	7 Nm	10 min ⁻¹	12 min ⁻¹	H
						20 min ⁻¹	24 min ⁻¹	J
-	-	-				40 min ⁻¹	48 min ⁻¹	C
4 - 8 Nm	5 Nm	3 Nm	4 - 8 Nm	5 Nm	3 Nm	10 min ⁻¹	12 min ⁻¹	M
						20 min ⁻¹	24 min ⁻¹	N
						40 min ⁻¹	48 min ⁻¹	P
-	-	-				80 min ⁻¹	96 min ⁻¹	D

Control board version	Switches	Revolutions ⁴¹⁾ ⁴⁵⁾		Wiring diagram	
		Without transmitter	With potentiometer		
Mechanical control board	S1/S2, S3/S4, S5/S6	3,125 ÷ 100	3,125; 6,25; <u>12,5</u> ; 25; 50; 100	Z403b, Z626f	A
		4 ÷ 128	4; 8; <u>16</u> ; 32; 64; 128		B
		5 ÷ 160	5; 10; <u>20</u> ; 40; 80; 160		C

Transmitter		Connection	Output	Wiring diagram	
Without transmitter		-	-	-	A
Potentiometer	Single	-	1 x 100 Ω	Z5c	B
			1 x 1 000 Ω		E
			1 x 2 000 Ω		F
	Double	-	2 x 100 Ω	Z6c	K
			2 x 1 000 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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Mechanical connection	Flange size	Spigot/diameter	Coupling shape		Dimensional drawing			
Flange ISO 5210	F07	N	B3	Ø16	P-2113 ⁶³⁾	P-1497	A	
			B4	Ø25			B	
		Y/55	B1	Ø28			Z	
	F10	N	B3	Ø20		P-1497	C	
	F10	Y/70	C	14/Ø28/Ø42		P-1498	M	
	F07 ⁶¹⁾	Y/55	A	Max. TR26 ⁶⁶⁾		P-1500	D	
	F10	N						
Non-standard	G0	Y/60 ⁶⁵⁾					P-1498	K
Non-standard	G0	Y/60 ⁶⁵⁾		14/Ø28/Ø42				P-1497
		N	-	Ø20			P-1498	
	-		Ø30	R				
	F07		-	Ø20			P-1499	S
			-	Ø30				T
	ГОСТ P 55510	64x30/4xM6	-	MЧ (MČ)			11x11	P-1499 ⁶⁷⁾
-			MK (MK)	35°/37°; Ø32/Ø25			V	
Ø104/4xØ15		-	AЧ (AČ)	19x19			⁶⁸⁾	W
		-	AK (AK)	35°/37° Ø46/Ø28				⁶⁹⁾

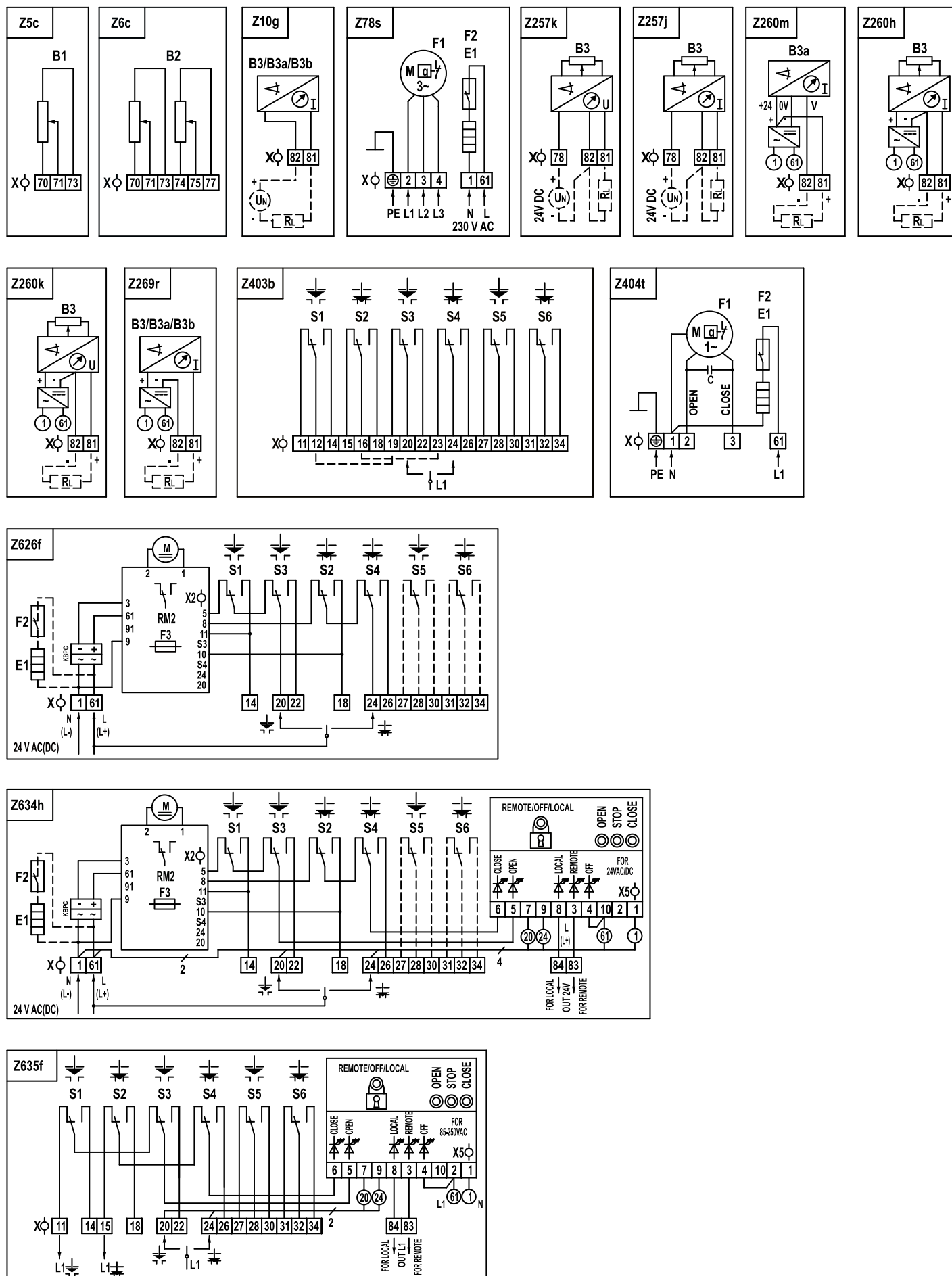
Additional equipment		Wiring diagrams			
	No additional equipment; adjusted to max. switching- off torque and operating angle 90°	-		0	0
A	Adjustment of operating angle far required value	-		0	1
B	Adjustment of switch-off torque to required value	-		0	3
G	Electric local controls	Z635f, Z634h		1	5
H	Gold coated contacts of microswitches D41 , details after consulting with producer	-		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 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.
 41) 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 12.5; 16; or 20 operating revolutions. When required settings are out of values listed in table, ohmic value of potentiometer will be reduced accordingly.
- 45) For ON-OFF duty when choosing number of operating revolutions morethan 100, please consider appropriate operating speed, so that actuator does not exceed duty cycle S2-10 min.
 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) Valid for actuators with local controls.
 65) Diameter Ø60 can be reached by turning the centring ring over.
 66) Bore without a thread. Max. thread diameterfor the rising spindle is Ø26.
 67) Max. raising spindle 50mm.
 68) Max. raising spindle 100mm.
 69) Max. raising spindle 150mm..

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 a maximum of 3 cable glands.
 The actuators with local control can be equipped with a maximum of 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 mechanical interlocking device.

Legend:

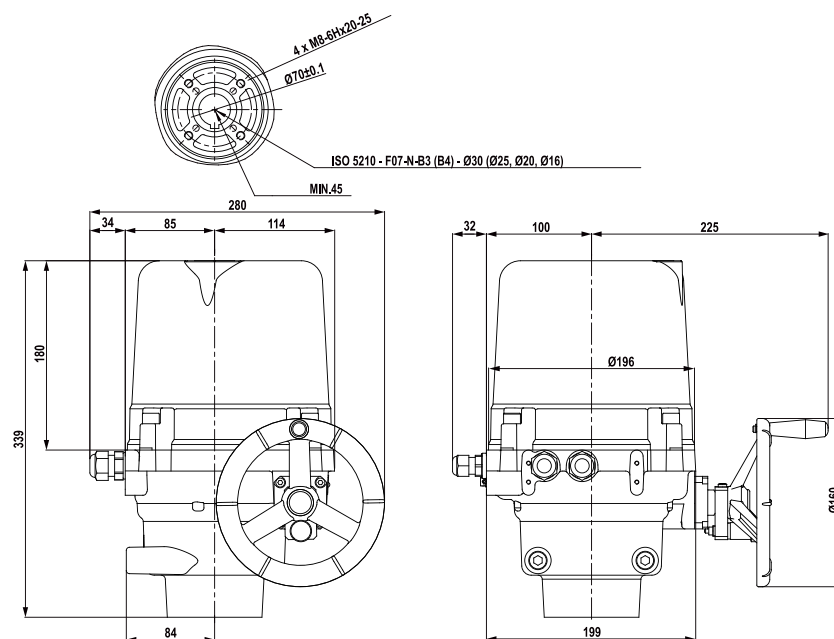
Z5c.....connection of single potentiometer
 Z6c.....connection of double potentiometer
 Z10g.....connection of CPT or electronic position transmitter - 2 - wire, passive
 Z78s.....connection of 3-phase electric motor and space heater
 Z257j.....connection of electronic position transmitter - 3 - wire, passive
 Z257k.....connection of electronic position transmitter - 3 - wire, passive
 Z260h.....connection of electronic position transmitter - 3 - wire, active
 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 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.....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 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

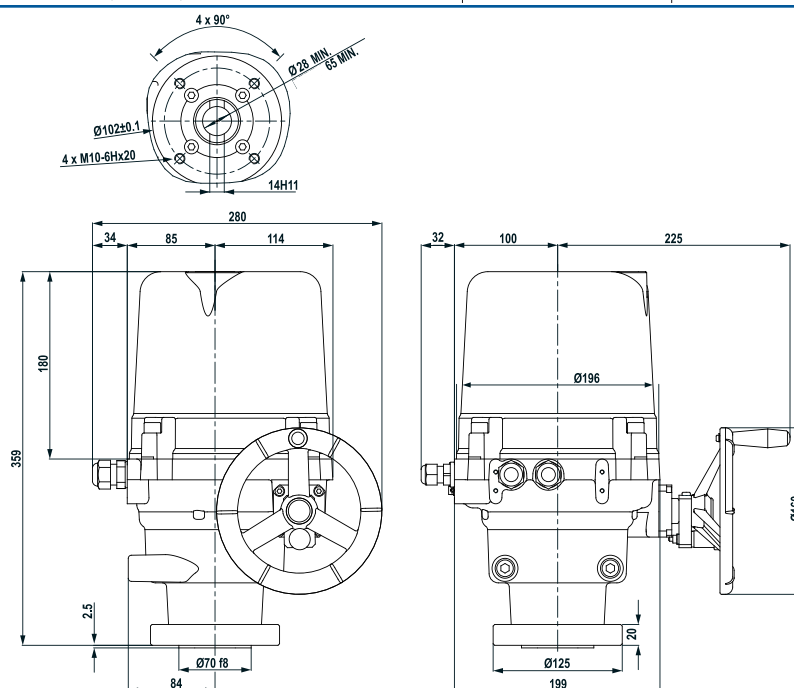
Dimensional drawing UM 1

ISO 5210, shape B3, B4



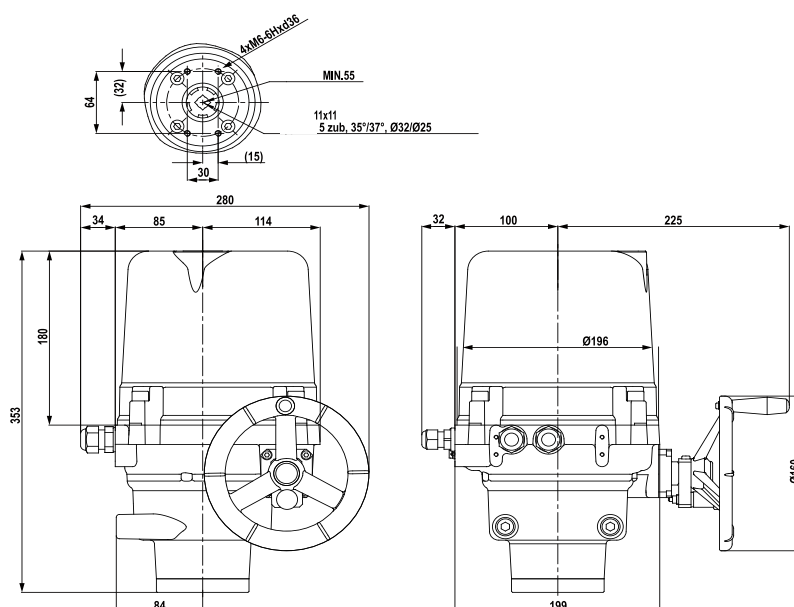
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ISO 5210, shape C



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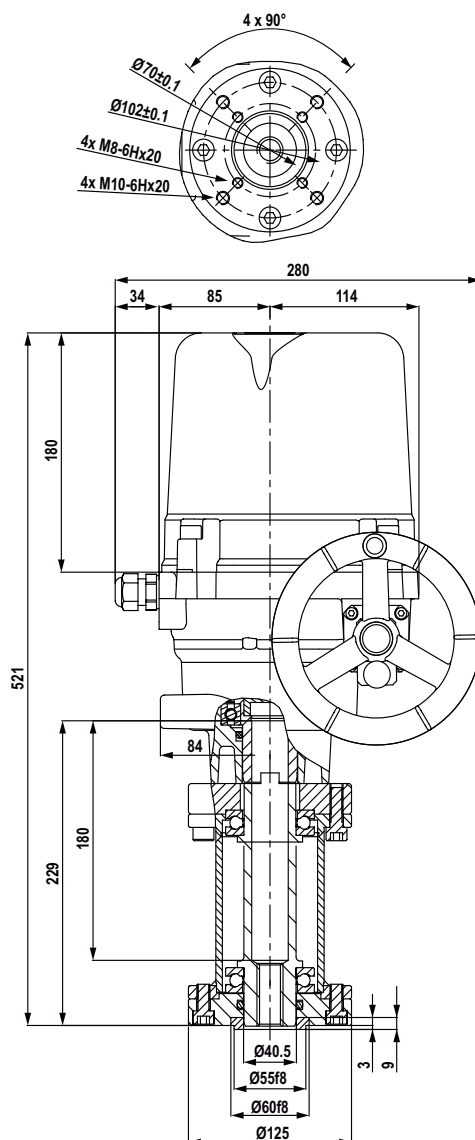
ГОСТ Р 55510 - МЧ и МК



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Dimensional drawing UM 1

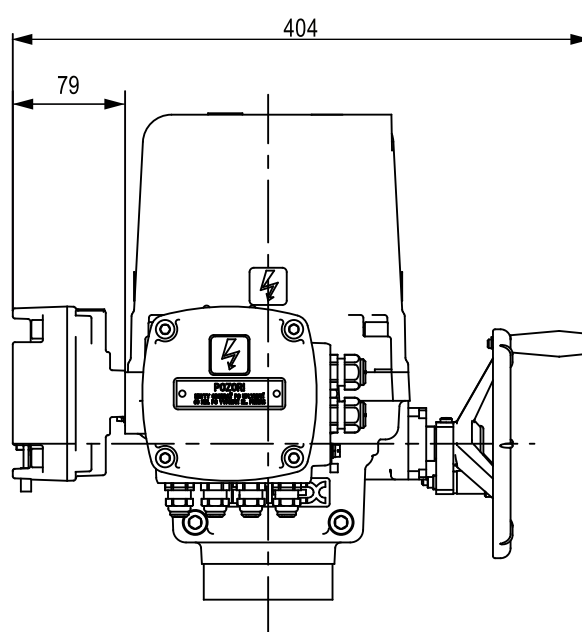
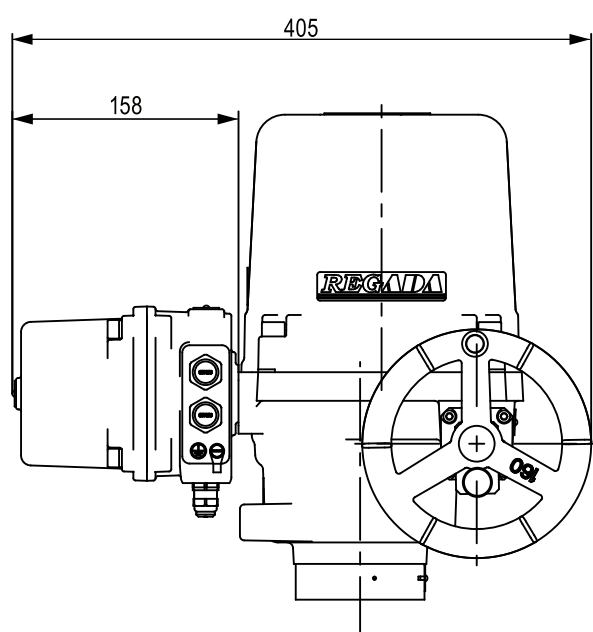
ISO 5210, shape A



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Dimensional drawing UM 1

Dimensional drawings UM 1 with local control



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