STANDARD
MPR

STANDARD EQUIPMENT

- Voltage 230 V AC
- Electrical connection to terminal board
- 2 torque switches S1, S2
- 2 limit position switches S3, S4
- 1~ electric motor with brake
- Manual operation with permanent readiness
- Heating resistor without thermal switch

Specification table MPR

Order code **220. X - X X X X X / X X**

Climate resistance	Ambient temperature	Corrosivity category [10]	Enclosure	
Standard	-25°C ... +55°C	C3	IP 67	1
Tropical dry and Dry	-25°C ... +55°C	C3	IP 67	6

Electric connection	Voltage	Wiring diagram	
To terminal board	230 V AC	Z296a	9
To connector		ZK296a	8

Switching-off torque [31]	Rated operating time	Operating time	Elektromotor			
			Power	Speed	Current	
63 ÷ 125 Nm	32 s/90°	32 ÷ 34 s/90°	16 W	1 150 min^{-1}	0.31 A	B
40 ÷ 100 Nm	16 s/90°	16 ÷ 18 s/90°				C
25 ÷ 63 Nm	8 s/90°	8 ÷ 10 s/90°				D

Control board version	Operating angle	Wiring diagram	
Electromechanical - without local control	60°	Z298/ZK298	A
	90°		B
	120°		C
	160°		D

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Order code **220. X - X X X X X / X X**

Transmitter		Connection	Output	Wiring diagram	
Without transmitter		-	-	-	A
Potentiometer	Single	-	1 x 100 Ω	Z5c/ZK5c	B
			1 x 2 000 Ω		F
	Double	-	2 x 100 Ω	Z6c/ZK6c	K
			2 x 2 000 Ω		P
Electronic position transmitter	Passive	2-wire	4 - 20 mA	Z10g/ZK10g	S
		3-wire	0 - 20 mA	Z257b/ZK257b	T
			4 - 20 mA		V
			0 - 5 mA		Y
	Active	2-wire	4 - 20 mA	Z269r/ZK269r	Q
		3-wire	0 - 20 mA	Z260h/ZK260h	U
			4 - 20 mA		W
			0 - 5 mA		Z
Electronic position transmitter	Passive	3-wire	0 - 10 V	Z257m/ZK257m	D
	Active		0 - 10 V	Z260k/ZK260k	R
Current CPT [52]	Passive	2-wire	4 - 20 mA	Z10g/ZK10g	I
		3-wire	0 - 5 mA	Z257n/ZK257n	5
	Active	2-wire	4 - 20 mA	Z269r/ZK269r	J
		3-wire	0 - 5 mA	Z260m/ZK260m	6
Current DCPT 3M [52]	Passive	2-wire	4 - 20 mA	Z10g/ZK10g	2
	Active		4 - 20 mA	Z269r/ZK269r	3

Mechanical connection		Rozmerový náčrt	
Lever + stops ends	Without additional coupling parts	P-1050b	A
	Pull-rod TV 360 (P-0210)		B
	Bolts (P-1090a)		C
	Pull-rod TV 360 + bolts (P-1090a; P-0210)		D

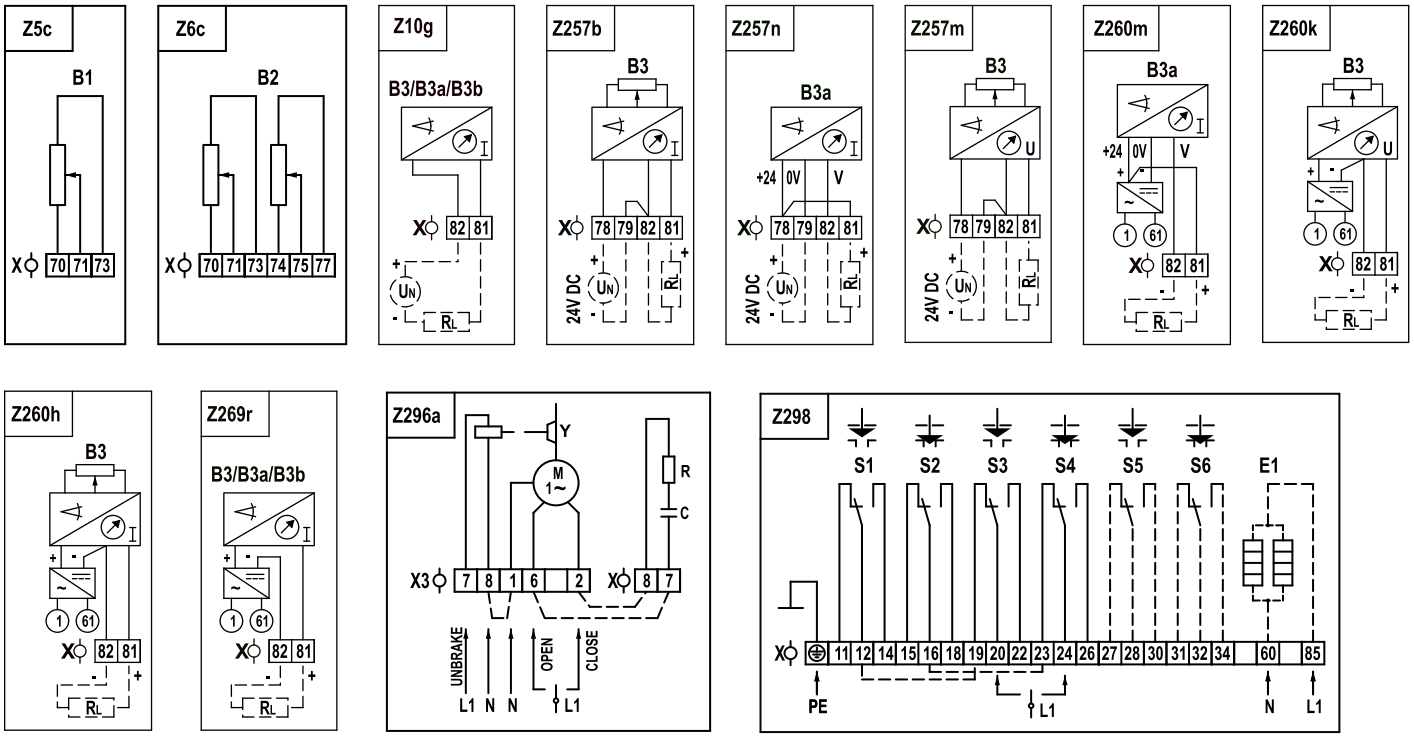
Additional equipment		Wiring diagram		
	Without additional equipment; adjusted max. switching-off torque		0	1
A	2 additional position switches S5, S6	Z298/ZK298	0	2
B	Switching-off torque adjustment for required value		0	3
Allowed combination and code of version: A+B=07				

Notes:
10) Climate resistance according to ISO 9223 / EN ISO 12944-2.
32) State the switch-off torque in your order. If not stated it is adjusted to the maximum value of the chosen range.
33) The maximum load torque equals the max. switching-offtorque multiplied by:
- 0.8 for duty cycle S2-10 min, or S4-25%, 6 - 90 cycles per hour.
- 0.6 for duty cycle S4-25%, 90 - 1200 cycles per hour.

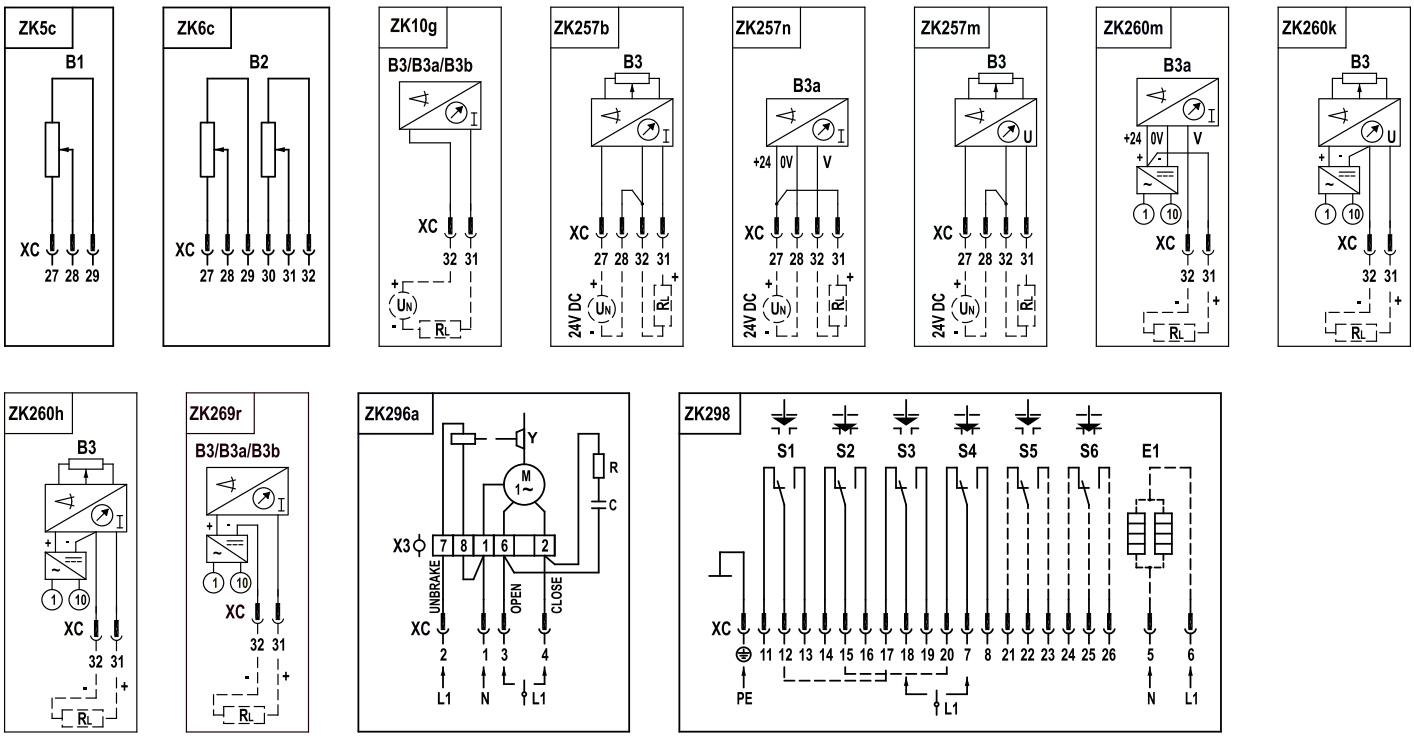
52) CPT - capacitive transmitter, DCPT 3M - electronic contactless transmitter.

Wiring diagrams

Terminal board connection



Connector connection



Electric connection:

to terminal board with 32 clamps, wire cross section max. 2.5 mm^2 via 2 cable glands and 1 cable connector na motor M25x1.5 for cable diameter 12.5 to 19 mm.

Notes:

1. Wiring connection is limited by max. number of 32 terminals.
2. For the EA version wilh connection to the terminal board, the actuator is not equipped with the jumper X3:6-X:7 and X3:2-X:8 (Z296) in manufacturing plant (it is necessary to connect it by customer).
3. When starting the electric motor, it is necessary to release its brake by applying the 230 V AC supply voltage to terminals 7 and 8 on terminal block X3.

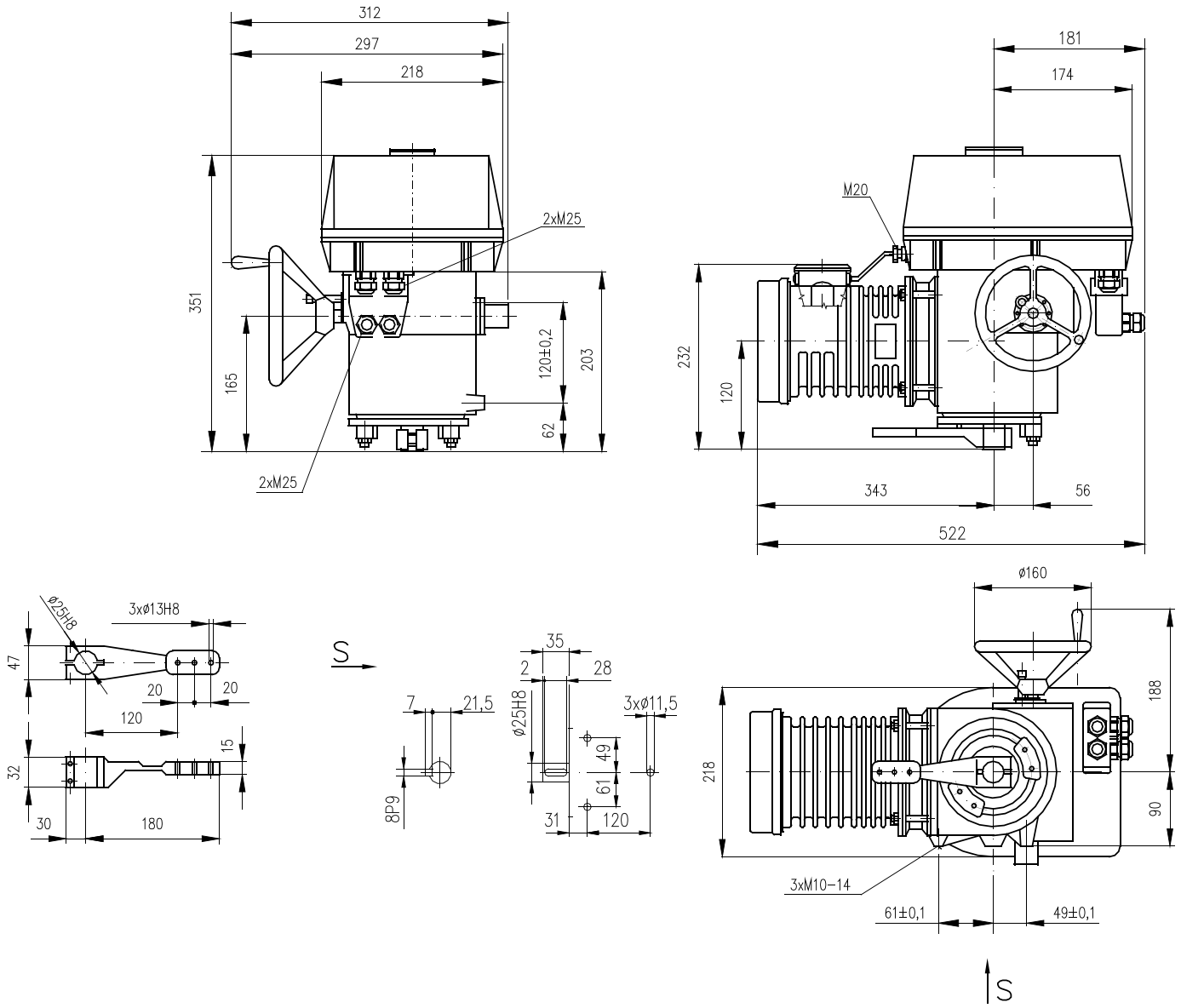
Legend:

Z5c/ZK5c.....connection of single potentiometer
Z6c/ZK6c.....connection of double potentiometer
Z10g/ZK10g.....connection of electronic position transmitter; 2-wire passive
Z257b/ZK257b.....connection of electronic position transmitter; 3-wire passive
Z257m/ZK257m.....connection of electronic position transmitter; 3-wire passive
Z257n/ZK257n.....connection of electronic position transmitter CPT; 3-wire active
Z260h/ZK260h.....electronic current position transmitter, 3-wire, active
Z260k/ZK260k.....0–10 V electronic position transmitter, 3-wire, active
Z260m/ZK260m.....CPT position transmitter, 3-wire, active
Z269r/ZK269r.....CPT, DCPT 3M, or electronic position transmitter, 2-wire, active
Z296a/ZK296a.....connection of 1-phase electric motor
Z298/ZK298.....connection of thrust and position switches and space heater

Legend:

B1.....single potentiometer
B2.....double potentiometer
B3.....CPT or electronic position transmitter
B3a.....capacitive current transmitter (CPT)
B3b.....DCPT current transmitter
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”
M.....electric motor
C.....capacitor
Y.....motor’s brake
E1.....space heater
X.....terminal board
X3.....electric motor’ s terminal board
I / U.....output signals current / voltage
R.....reducing resistor
R_L.....loading resistor

Dimensional drawing MPR



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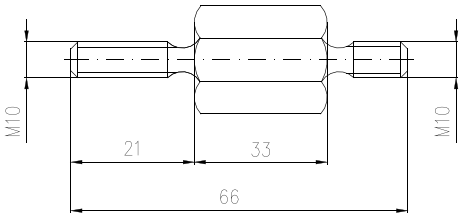
Dimensional drawing MPR

Bolt



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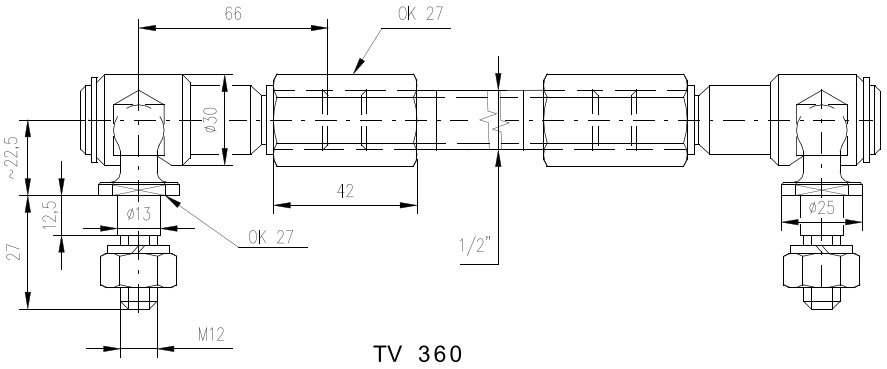
Pull-rod



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Attachment example of actuator by bolts