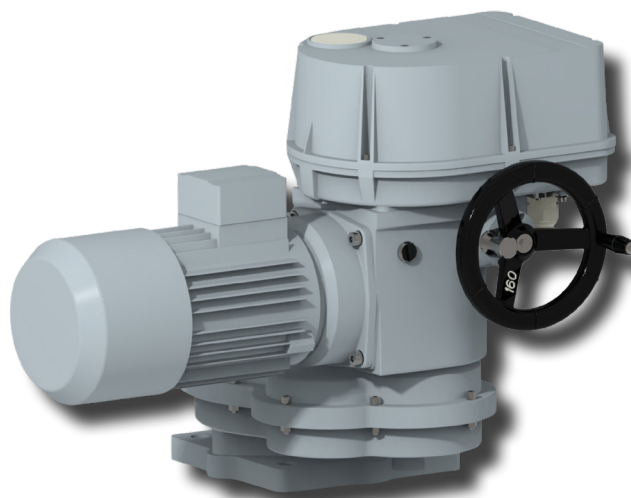


STANDARD

MO 3.5

STANDARD EQUIPMENT:

- Voltage 3x400 V AC
- Terminal board connection
- Motor's thermal protection PTO ¹⁾
- 2 torque switches
- 2 position switches
- 2 additional position switches
- Space heater with thermal switch
- Mechanical connection - flange
- Mechanical position indicator
- Torque switches blocking in limit position
- Manual control
- Protection code IP 55



Specification table MO 3.5

Order code

095. X - X X X X X / X X

Climate resistance	Ambient temperature	Corrosivity category ¹⁰⁾	Enclosure	
Standard	-25°C ... +60°C	C3	IP 55	0
			IP 67	1
Tropics and Wet	-25°C ... +60°C	C4	IP 67	2
Cold	-50°C ... +40°C	C3	IP 55	4
			IP 67	3
Tropical dry and Dry	-25°C ... +60°C	C3	IP 55	5
			IP 67	6
Sea	-50°C ... +40°C	C4	IP 67	7
Arctic	-60°C ... +40°C	C3	IP 55	9
			IP 67	8

Electric connection	Electric motor supply voltage and frequency ²⁹⁾		Wiring diagram	
To terminal board	Y/Δ380/220 V AC	50 Hz	Z279c	0
	Y/Δ400/230 V AC	50 Hz	Z279c	1
	Y/Δ380/220 V AC - with reversing unit	50 Hz	Z297b	2
	Y/Δ400/230 V AC - with reversing unit	50 Hz	Z297b	3
To connector ²¹⁾	Y/Δ380/220 V AC	50 Hz	ZK279c	5
	Y/Δ400/230 V AC	50 Hz	ZK279c	6
	Y/Δ380/220 V AC - with reversing unit	50 Hz	ZK297b	4
	Y/Δ400/230 V AC - with reversing unit	50 Hz	ZK297b	7

Next page

Order code

095. X - X X X X X / X X

Switching-off torque ³¹⁾	Max. load torque		Operating time	Electric motor 3x400 V, 50Hz			
	ON - OFF duty ³²⁾	Modulating duty ³³⁾		Power	Speed	Current ³⁵⁾	
84 ÷ 140 Nm	84 Nm	56 Nm	25 min ⁻¹	1 100 W	2 840 min ⁻¹	2.45 A	J
			32 min ⁻¹				S
			40 min ⁻¹				V
156 ÷ 260 Nm	156 Nm	104 Nm	40 min ⁻¹				P
192 ÷ 320 Nm	192 Nm	128 Nm	25 min ⁻¹				K
			32 min ⁻¹				T
260 ÷ 380 Nm	228 Nm	152 Nm	40 min ⁻¹	1 500 W	2 830 min ⁻¹	3.15 A	Q
300 ÷ 380 Nm	228 Nm	152 Nm	40 min ⁻¹				R
300 ÷ 450 Nm	270 Nm	180 Nm	25 min ⁻¹	1 100 W	2 840 min ⁻¹	2.45 A	L
			32 min ⁻¹				U
400 ÷ 530 Nm	318 Nm	212 Nm	32 min ⁻¹	1 500 W	2 830 min ⁻¹	3.15 A	N
400 ÷ 550 Nm	330 Nm	220 Nm	25 min ⁻¹				M

Control board version	Switches	Revolutions ⁴⁴⁾		Wiring diagram	
		Without transmitter	With potentiometer		
Electromechanical control board with step counter unit without local controls	S1/S2, S3/S4, S5/S6	1.5 ÷ 2.8	1.5; <u>2.8</u>	Z403a+Z41a	1
		5 ÷ 185	5; 9.5; 17; <u>31</u> ; 56; 100; 185	ZK403a+ZK41a	2
	S1/S2, S3/S4, with tandem switches S13/S14	1.5 ÷ 2.8	1.5; <u>2.8</u>	Z461f+Z41a	K
		5 ÷ 185	5; 9.5; 17; <u>31</u> ; 56; 100; 185	ZK461f+ZK41a	L
Electromechanical control board with step counter unit with local controls	S1/S2, S3/S4, S5/S6	1.5 ÷ 2.8	1.5; <u>2.8</u>	Z635g+Z41a	5
		5 ÷ 185	5; 9.5; 17; <u>31</u> ; 56; 100; 185	ZK635g+ZK41a	6
	S1/S2, S3/S4, with tandem switches S13/S14	1.5 ÷ 2.8	1.5; <u>2.8</u>	Z636d+Z41a	U
		5 ÷ 185	5; 9.5; 17; <u>31</u> ; 56; 100; 185	ZK636d+ZK41a	V

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 ⁵¹⁾	Passive	2-wire	4 - 20 mA	Z10g/ZK10g	S
			0 - 20 mA		T
		3-wire	4 - 20 mA	Z257b/ZK257b	V
			0 - 5 mA		Y
	Active	2-wire	4 - 20 mA	Z269r/ZK269r	Q
			0 - 20 mA		U
		3-wire	4 - 20 mA	Z260h/ZK260h	W
			0 - 5 mA		Z
Electronic position transmitter ⁵¹⁾	Passive	3-wire	0-10 V	Z257m/ZK257m	D
	Active		0-10 V	Z260k/ZK260k	R
Current ⁵¹⁾ ⁵²⁾ CPT	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 ⁵¹⁾ ⁵²⁾ DCPT 3M	Passive	2-wire	4 - 20 mA	Z10g/ZK10g	2
	Active		4 - 20 mA	Z269r/ZK269r	3

Next page

Order code

095. X - X X X X / X X

Mechanical connection		Flange	Coupling shape		Dimensional drawing	
Without connect adapter	ISO 5210	F16	C	24/Ø55/Ø80	P-1422/C	C
			D	Ø40	P-1426/D	D
			B3	Ø40	P-1427/B	B
			B2	Ø60	P-1427/2	2
	ISO 5210	F14	C	20/Ø45/Ø60	P-1422/Q	Q
			D	Ø30	P-1426/R	R
			B3	Ø30	P-1427/L	L
			B1	Ø60	P-1427/M	M
			B2	Ø45	P-1427/N	N
			A	Max. TR 52	P-1424/A	A
				Max. TR 52	P-1430/V	V
With connect adapter	ГОСТ P 55510	Ø220/4xM20	B (V)	5 zub Ø70/Ø85	P-1423/V	G
	ГОСТ P 55510	Ø135/4xØ13 ⁶¹⁾	B (B)	5 zub Ø45/Ø58	P-1423/B	U

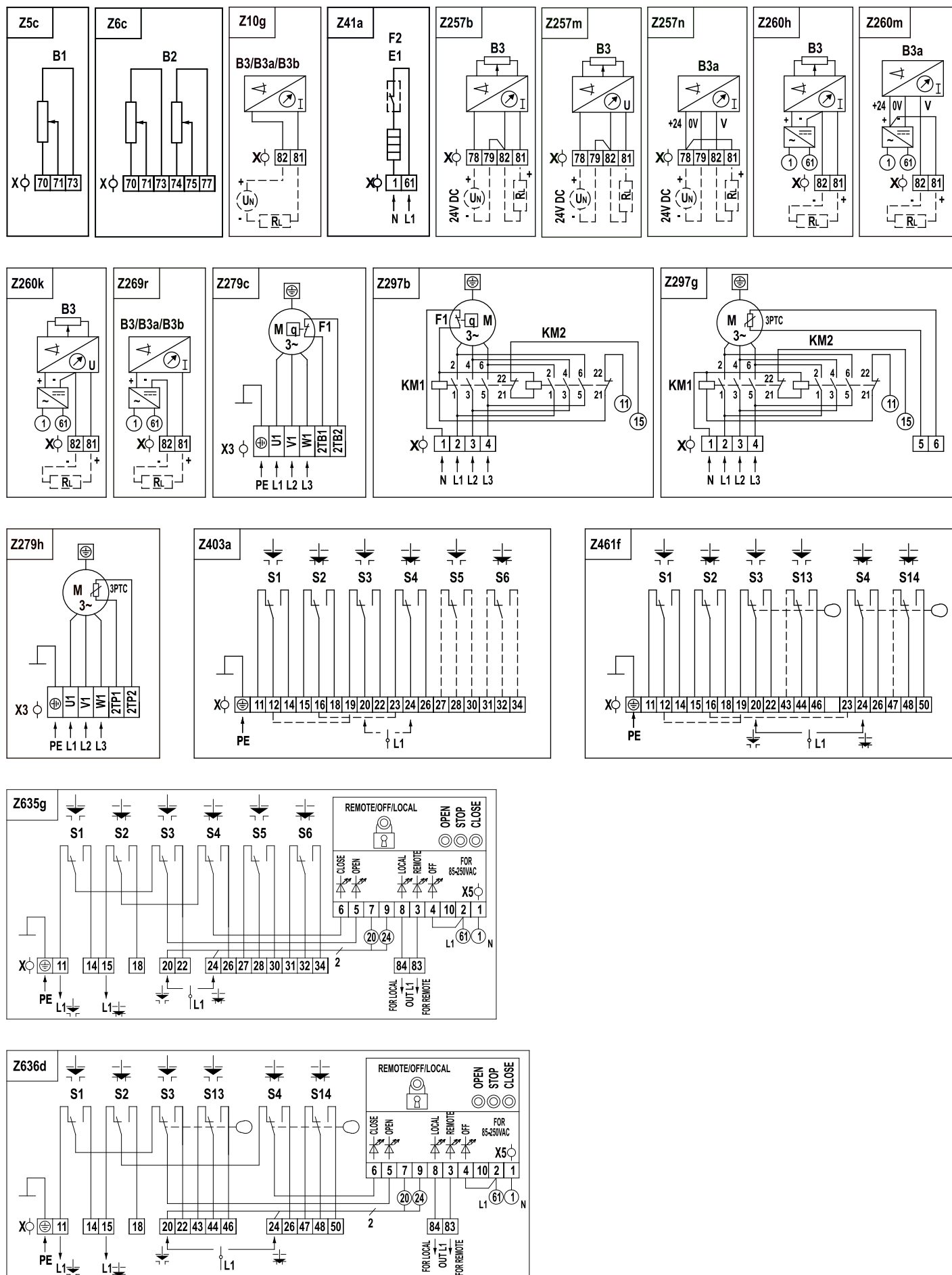
Additional equipment		Wiring diagram		
	No additional equipment; adjusted to max. switching-off torque of chosen range and stroke to 2.8 or 31 revolutions	-	0	1
B	Switching-off torque adjustment to the required value	-	0	3
C	Adjustment of revolutions to the required value	-	0	4
F	Electric motor with thermal protection 3PTC, 150 °C.	Z279h/ZK279h Z297g/ZK297g	0	5
H	Gold coated contacts of microswitches, details after consultation with the manufacturer	-	4	0
Allowed combinations and code of version: B+C=06; B+F=07; B+H=41; B+C+H=44; C+H=42; C+F=08; B+C+F=09				

Notes:

- 1) Cut-off temperature 150 °C
- 10) Climate resistance according to ISO 9223 / EN ISO 12944-2
- 21) The version with connector in -40° C only.
- 25) Iné napätia po dohode s výrobcom (3x500 V; 3x480 V; 3x415V).
- 31) Specify the switching-off torque in your order by words. If not stated it is adjusted to the maximum rate of the chosen range.
The starting torque is at least 1.3 times the maximum closing torque of the selected range.
- 32) Duty cycle S2-15min, or S4-25%, 6-90 cycles per hour.
- 33) Duty cycle S4-25%, 90-1200 cycles per hour.
- 34) For 60 Hz, the operating speed increases by a factor of 1.2 and the max. torque decreases by a factor of 0.8.
- 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 than 75% of revolutions is required, value of output signals from electronic transmitter will be reduced accordingly as well.
- 51) Not valid for temperatures of -60°C.
- 52) CPT - kapacitný vysielač, DCPT 3M - elektronický bezkontaktný vysielač.
- 61) Up to switch-off torque of 400 Nm

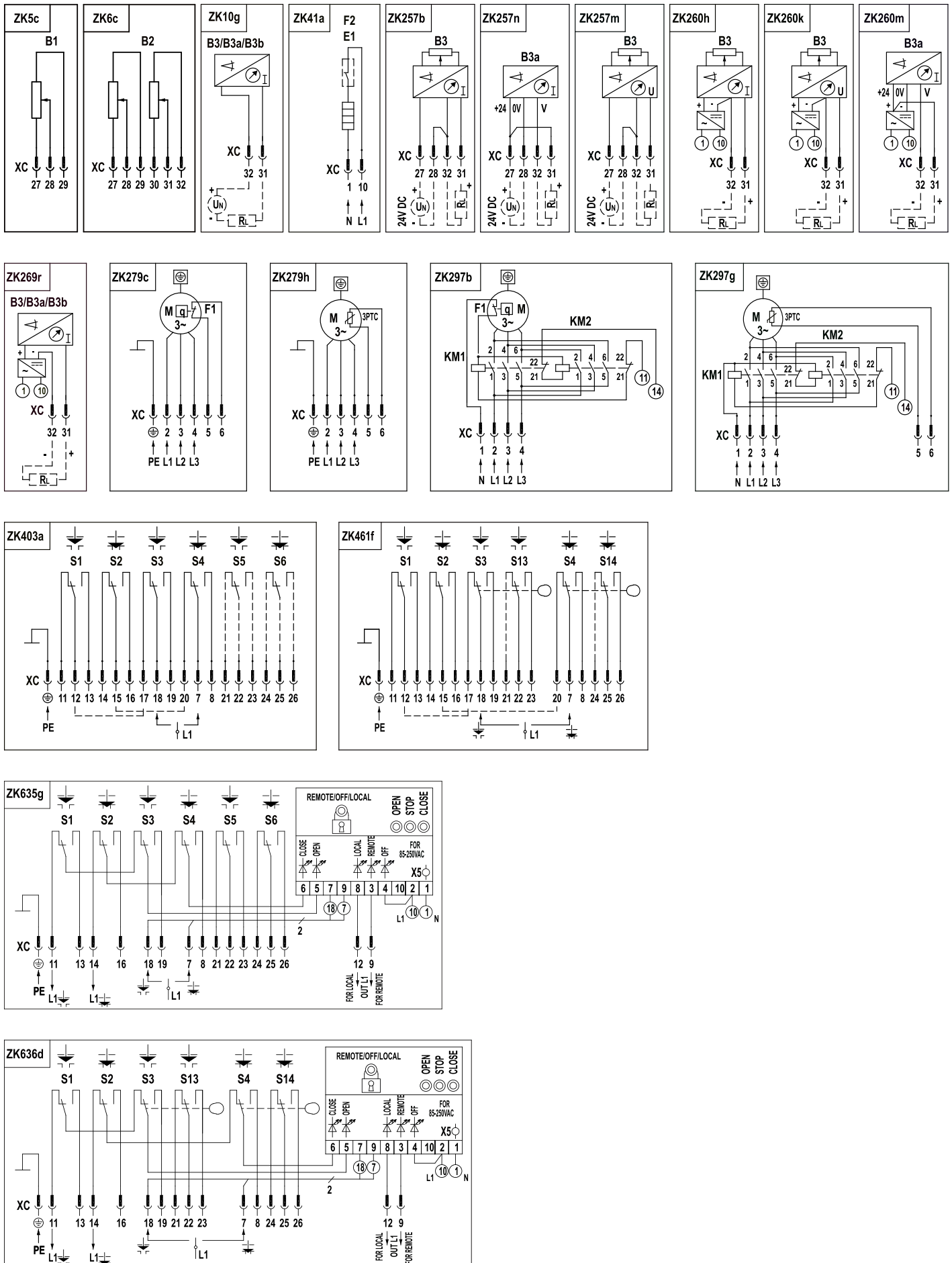
Wiring diagrams

Terminal board connection



Wiring diagrams

Connector connection



Electric connection of actuator to terminal board:

- max. 32 terminals
- max. wire cross-section 2,5 mm²
- 2 cable glands M25x1.5 out of control board for cable diameter 12.5 to 19 mm
- 1 cable gland M25x1,5 out of electromotor for cable diameter 12.5 to 19 mm

Electric connection of actuator to connector:

The control section and electromotor are connected to common connector (XC) via:

- max. 32 terminals
- max. wire cross-section 0,5 mm²
- 1 cable gland M20x1.5 out of connector for cable diameter 8 to 14.5 mm
- 1 cable gland M20x1.5 out of connector for cable diameter 12.5 to 19 mm

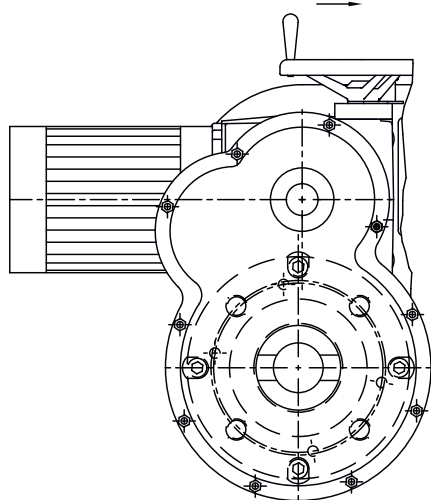
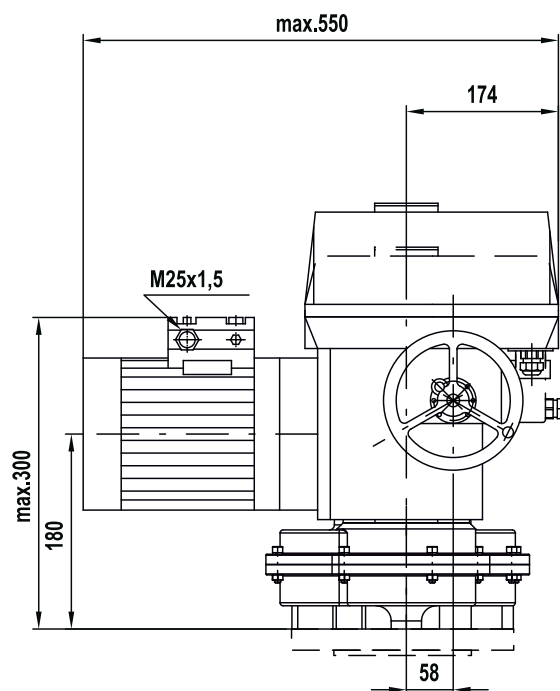
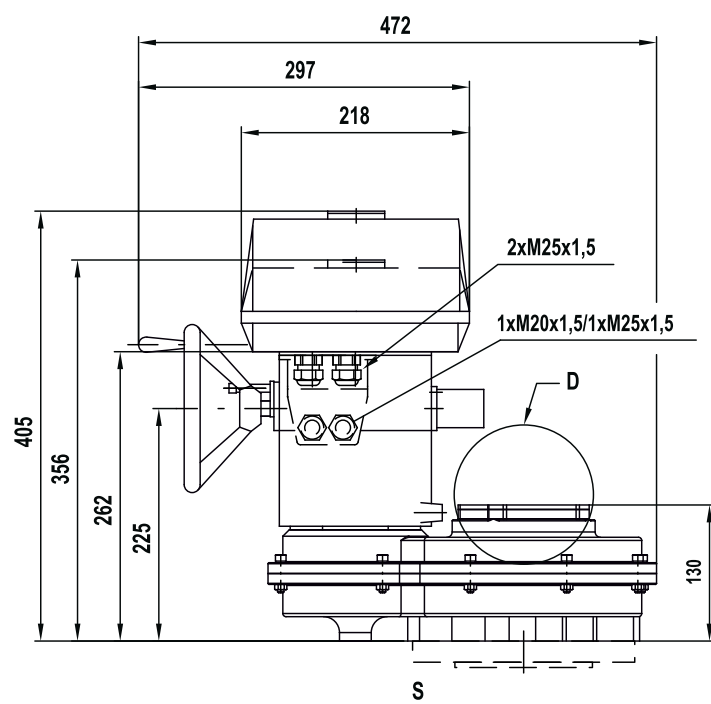
Legend:

Z5c/ZK5c.....	connection of single potentiometer
Z6c/ZK6c.....	connection of double potentiometer
Z10g/ZK10g.....	connection of CPT or electronic position transmitter-2-wire, passive
Z41a/ZK41a.....	space heater and space heater's thermal switch
Z257b/ZK257b.....	current electronic position transmitter, 3-wire, passive
Z257m/ZK257m.....	electronic position transmitter 0 - 10 V, 3-wire, passive
Z257n/ZK257n.....	position transmitter CPT, 3-wire, passive
Z260h/ZK260h.....	current electronic position transmitter, 3-wire, active
Z260k/ZK260k.....	electronic position transmitter 0 - 10 V, 3-wire, active
Z260m/ZK260m.....	position transmitter CPT, 3-wire, active
Z269r/ZK269r.....	CPT, DCPT 3M or electronic transmitter, 2-wire, active
Z279c/ZK279c.....	3-phase electric motor with thermal protection PTO
Z279h/ZK279h.....	3-phase electric motor with thermal protection PTC
Z297b/ZK297b.....	connection of 3-phase electromotor with reverse contactors and thermal protection PTO
Z297g/ZK297g.....	connection of 3-phase electromotor with reverse contactors and thermal protection PTC
Z403a/ZK403a.....	connection of torque and position switches
Z461f/ZK461f.....	connection of torque and tandem position switches
Z635g/ZK635g.....	connection of torque switches, position switches, additional position switches and local control unit
Z636d/ZK636d.....	connection of torque switches, position switches, tandem 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
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“
E1.....	space heater
F1.....	motor's thermal protection
F2.....	space heater's thermal switch
I / U.....	current / voltage output signal
KM1, KM2.....	reversing contactors
M.....	electric motor
PTC/PTO.....	thermal protection of electric motor
R _L	loading resistor
X.....	terminal board
X3.....	electric motor's terminal board
XC.....	connector
OPEN/STOP/CLOSE.....	local control buttons
REMOTE/OFF/LOCAL.....	local control selection button

Dimensional drawing MO 3.5



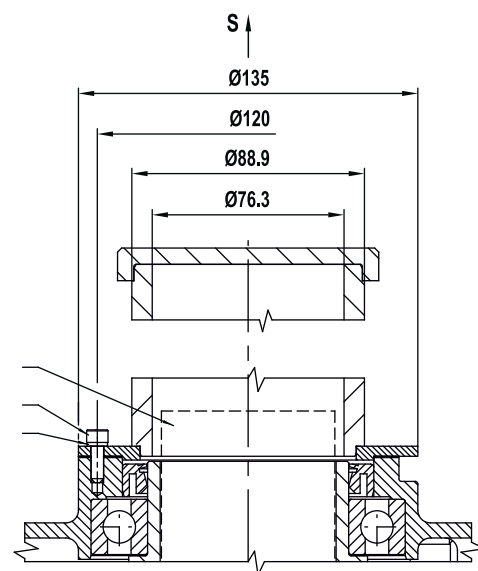
D

Version for a non-rising spindle

Stúpajúce vreteno armatúry

4xSkrutka \ ISO 4762-M5x16-A2-70

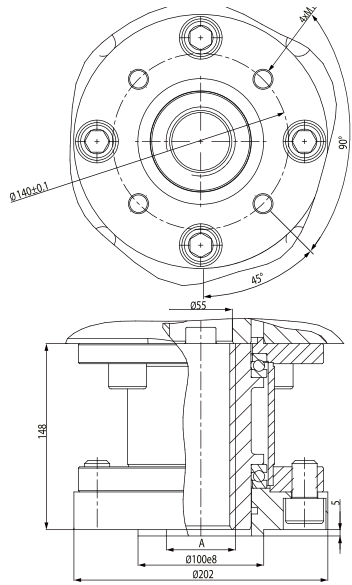
4xPodložka \ 5 STN 02 1740



*Valid for connector version only

Dimensional drawing MO 3.5

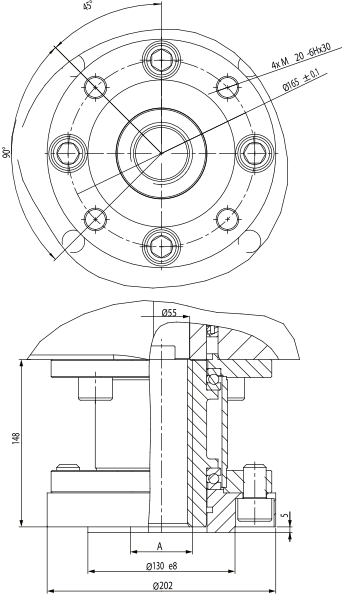
Share A, F14



Poznámka:
Vyhotovenie závitů špecifikovať v objednávke.

P-1430/V

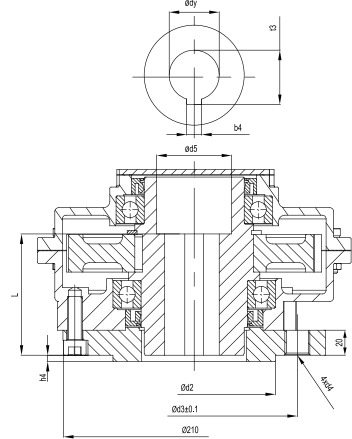
Share A, F16



P-1424/A	F16	Max.TR 52
P-1430/V	F14	Max.TR 52
Version	Flange	A

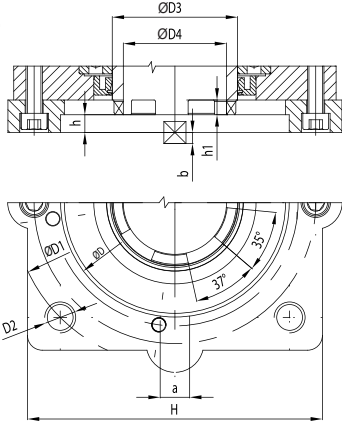
P-1424/A

Share B1,B2,B3



P-1427

Share B (B) a B (V)
ГОСТ P 55510

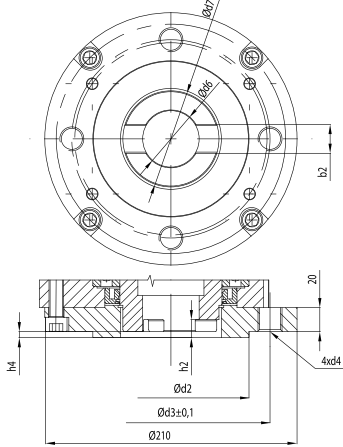


P-1423

P-1427/M	B1				60	18	64.4		
P-1427/N	B2	100	140	M16	45	40	14	48.6	65 4
P-1427/L	B3				30	-	8	33.3	
P-1427/2	B2				60	50	18	64.4	
P-1427/B	B3	130	165	M20	40	-	12	43.3	80 5
Version	Shape	d2	d3	d4	dy	d5	b4	t3	L h4

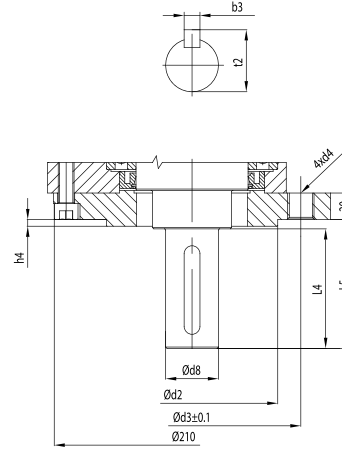
P-1423/V	B	200x200	155	12	220	M20	85	70	10	20	6
P-1423/B	B	122x122	108	8	135	Ø13	58	45	8	-	-
Version	H x H	D	h	D1	D2	D3	D4	h1	a	b	

Share C



P-1422

Share D



P-1426/D	130	165	M20	40	90	97	12	43.2	5
P-1426/R	100	140	M16	30	70	76	8	33	4
Version	d2	d3	d4	d8	L4	L5	b3	t2	h4

P-1426

P-1422/C	130	165	M20	55	80	24	15	5
P-1422/Q	100	140	M16	45	60	20	12	4
Version	d2	d3	d4	d6	d7	b2	h2	h4