

STANDARD

ST 0.1

STANDARD EQUIPMENT

- Voltage 230 V AC
- Terminal board connection
- 2 thrust switches
- 1 position switch
- Mechanical connection - pillars
- Mechanical position indicator
- Space heater with thermal switch
- Manual control with permanent standby
- Protection code IP 65



Specification table ST 0.1

Order code

498. X - X X X X X / X X

Climate resistance	Ambient temperature	Corrosivity category ¹⁰⁾	Enclosure	
Standard	-25°C...+55°C	C3	IP 65	0
	-25°C...+55°C	C3	IP 67	1
	-25°C...+55°C	C3	IP 68 ¹¹⁾	5
Tropics and Wet	-25°C...+55°C	C4	IP 67	2
Tropical dry and Dry	-25°C...+55°C	C3	IP 67	6
Sea	-25°C...+40°C	C4	IP 67	7

Electric connection	Voltage and frequency		Wiring diagram	
To terminal board	230 V AC	50 Hz	Z33	0
	220 V AC	50 Hz		L
	3x400 V AC	50 Hz		9
	3x380 V AC	50 Hz	Z78v + Z245e ²²⁾	M
	24 V AC	50 Hz	Z642e	
	24 V DC	-		A
	24 V AC	60 Hz		
To connector	230 V AC	50 Hz	ZK33	5
	220 V AC	50 Hz		P
	3x400 V AC	50 Hz	ZK78v+ZK245f ²²⁾	7
	3x380 V AC	50 Hz	ZK78v+ZK245f ²²⁾	R
	24 V AC	50 Hz	ZK642e	
	24 V DC	-		C
	24 V AC	60 Hz		

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Order code

498. X - X X X X X / X X

Switching-off thrust	Max. load thrust ³²⁾		Max. load thrust ³³⁾		Operating speed ³⁴⁾		
					50 Hz	60 Hz	
1 900 N	ON - OFF duty	1 600 N	Modulating duty	1 600 N	10 mm/min	12 mm/min	4
					16 mm/min	19 mm/min	5
					25 mm/min	30 mm/min	6
					32 mm/min	38 mm/min	8
					40 mm/min	48 mm/min	7
3 600 N		3 200 N		2 500 N	10 mm/min	12 mm/min	A
					16 mm/min	19 mm/min	B
					25 mm/min	30 mm/min	C
					32 mm/min	38 mm/min	D
					40 mm/min	48 mm/min	E
4 600 N		4 000 N		-	63 mm/min	75 mm/min	F
				3 200 N	10 mm/min	12 mm/min	G
					16 mm/min	19 mm/min	H
					25 mm/min	30 mm/min	I
					32 mm/min	38 mm/min	J
5 800 N		5 000 N		4 000 N	40 mm/min	48 mm/min	K
					10 mm/min	12 mm/min	M
					16 mm/min	19 mm/min	N
					25 mm/min	30 mm/min	P
					32 mm/min	38 mm/min	Q
7 200 N		6 300 N		5 000 N	40 mm/min	48 mm/min	R
					10 mm/min	12 mm/min	T
					16 mm/min	19 mm/min	U
					25 mm/min	30 mm/min	V
					32 mm/min	38 mm/min	W
					40 mm/min	48 mm/min	Y

Operating stroke			
without transmitter ⁴¹⁾	with transmitter	with transmitter - combined strokes ^{41) 48)}	
0 - 10 mm	10 mm	-	B
0 - 12.5 mm	12.5 mm	-	C
0 - 16 mm	16 mm	-	D
0 - 20 mm	20 mm	-	E
0 - 25 mm	25 mm	-	F
0 - 28 mm	28 mm	-	J
0 - 32 mm	32 mm	-	G
0 - 40 mm	40 mm	-	H
0 - 50 mm	50 mm	-	I
-		12 - 13 mm	K
		14 - 15 mm	L
		17 - 18 mm	M
		19 - 21 mm	N
		22 - 24 mm	P
		25 - 28 mm	Q
		29 - 32 mm	R
		40 - 44 mm	S

Notes:
10) Climate resistance according to ISO 9223/ EN ISO 12944-2.
11) IP 68 -10 m / 48 hours. Dimensional drawings on request.
22) Version 3x400 V (380 V) with additional position switches and double transmitter in agreement with producer.

32) By this thrust it is possible to load the actuator under duty cycle S2-10 min, or S4-25%, 6-90 cycles per hour.

Order code

498. 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 1000 Ω		E
			1 x 2 000 Ω		F
	Double	-	2 x 100 Ω	Z6c / ZK6c	K
			2 x 1000 Ω		N
			2 x 2 000 Ω		P
Electronic position transmitter ⁵¹⁾	Passive	2-wire	4 - 20 mA	Z10g / ZK10g	S
		3-wire	0 - 20 mA	Z257j / ZK257j	T
			4 - 20 mA		V
	Active	2-wire	0 - 5 mA	Z269r / ZK269r	Y
			4 - 20 mA		Q
		3-wire	0 - 20 mA	Z260h / ZK260h	U
			4 - 20 mA		W
			0 - 5 mA		Z
Electronic voltage	Passive	3-wire	0 - 10 V	Z257k / ZK257k	D
	Active		0 - 10 V	Z260k / ZK260k	R
Current ⁵²⁾ CPT	Passive	2-wire	4 - 20 mA	Z10g / ZK10g	I
	Active	2-wire	4 - 20 mA	Z269r / ZK269r	J
Current ⁵²⁾ DCPT 3M	Passive	2-wire	4 - 20 mA	Z10g / ZK10g	2
	Active		4 - 20 mA	Z269r / ZK269r	3

Mechanical connection	Connecting height	Thread of the stem ⁶²⁾	Dimensional drawing	
Direct / flange ISO 5210 - F05	45 mm	M12x1.25-20	P-1201	A
Flange	103 mm	M10x1-26 M10x1.5-26 M12-26 M12x1.5-26 M14-26 M16x1.5-26 UN 1/2-13 UN 3/8-16 UN 5/16-18 Bez otvoru	P-1202/A	B
	110 mm		P-1202/B	C
	112 mm		P-1202/C	D
	92 mm		P-1202/D	E
	102 mm		P-1202/E	F
	94 mm		P-1202/F	3
	124 mm		P-1202/G	4
	59 mm		P-1418/A	G
	86 mm		P-1418/B	H
	66 mm ⁶¹⁾		P-1472	V
Pillars	59 mm		P-2075	5
	127 mm		P-1203/A	J
	42 mm		P-1203/B	K
	80 mm		P-1203/C	L
	27 mm		P-1203/D	M
	57 mm		P-1203/E	N
	110 mm		P-1203/F	P
Flange and 4-pillars	70 mm		P-1203/G	7
	103 mm		P-1468/A	R
	110 mm		P-1468/B	T
	66 mm		P-1470	U

Additional equipment		Wiring diagram		
A	2 additional position switches and heating resistor with thermal switch ²²⁾	Z21a/ZK21a	0	0
B	Without space heater	Z33/ZK33	0	1
C	Space heater without thermal switch	Z78v/ZK78v, Z642e/Z642e	0	3
D	Manual control without permanent standby ⁷⁷⁾	-	0	5
H	Gold coated contacts of microswitches, details after consulting the producer	-	4	0

Allowed combination and code: A+B=02, A+C=04, A+D=06, B+D=07, A+B+D=08, C+D=09, A+C+D=10

Notes:

33) By this thrust it is possible to load the actuator under duty cycle S4-25%, 90-1200 cycles per hour.

34) Deviation of operating speed for the supply voltage 24 AC/DC electric motor is from -50% up to +30% depending on load. For other voltages the deviation is ± 10%.

41) The version without any transmitter can have its stroke adjusted from 0 mm up to maximum stroke. For version with the transmitter and operation stroke which is not shown in the table, select the next higher stroke with the appropriate code.

48) For the combined strokes, for version with the potentiometer, the resistance value at the limit position open "O" is between 85 - 100% of max. value

52) CPT - kapacitný vysieláč.

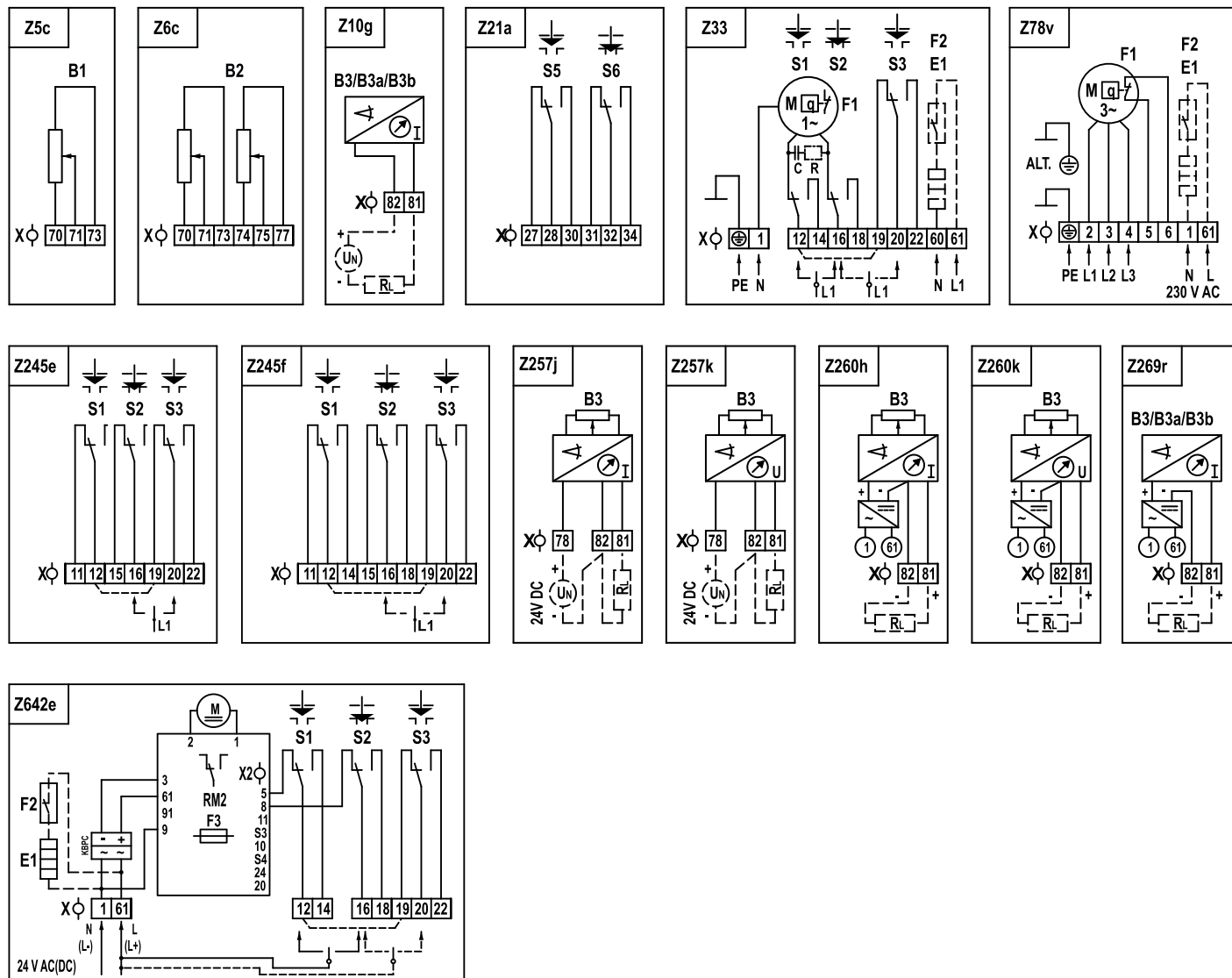
61) For max. thrust up to 3600 N only.

62) Thread in the coupling must be specified in the order by words.

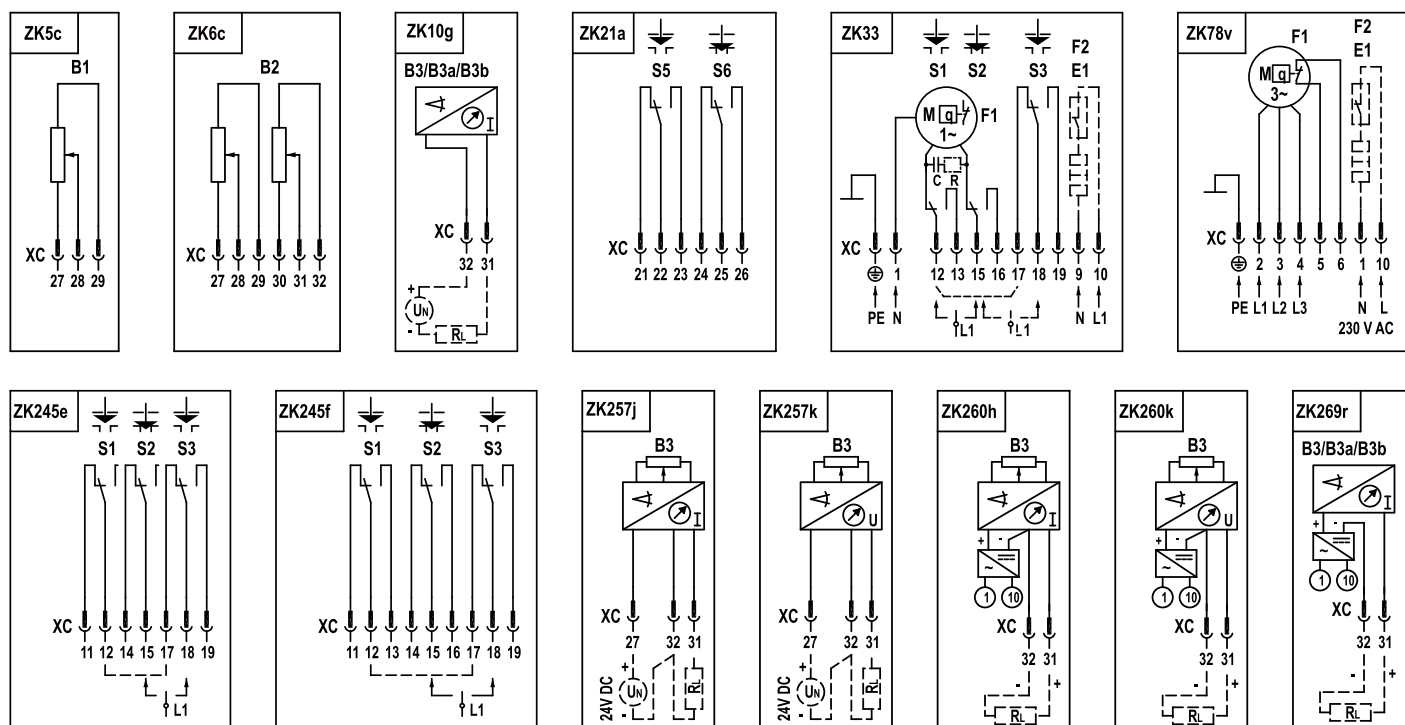
77) The actuator is manually operated by the handle after removing the plug on the top cover. The handle is located on the bottom cover of the actuator.

Wiring diagrams

Terminal board connection

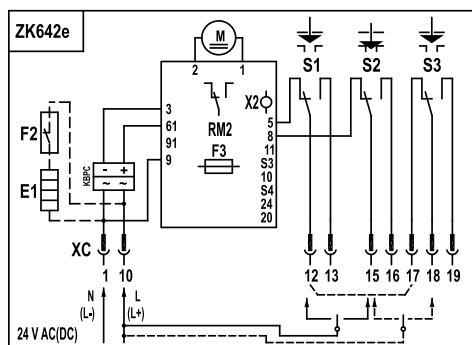


Connector connection



Wiring diagrams

Connector connection



Electric connection:

to terminal board with 23 terminals, wire cross section max. 1,5 mm², via 3 cable glands:

- 1x M20x1,5 for cable diameter 8 to 14,5 mm
- 2x M16x1,5 for cable diameter 6 to 10,5 mm.

Notes:

1. Wiring connection is limited by max. number of 23 terminals.
2. Different wirings of actuators than shown in the catalogue are possible after agreement with producer.

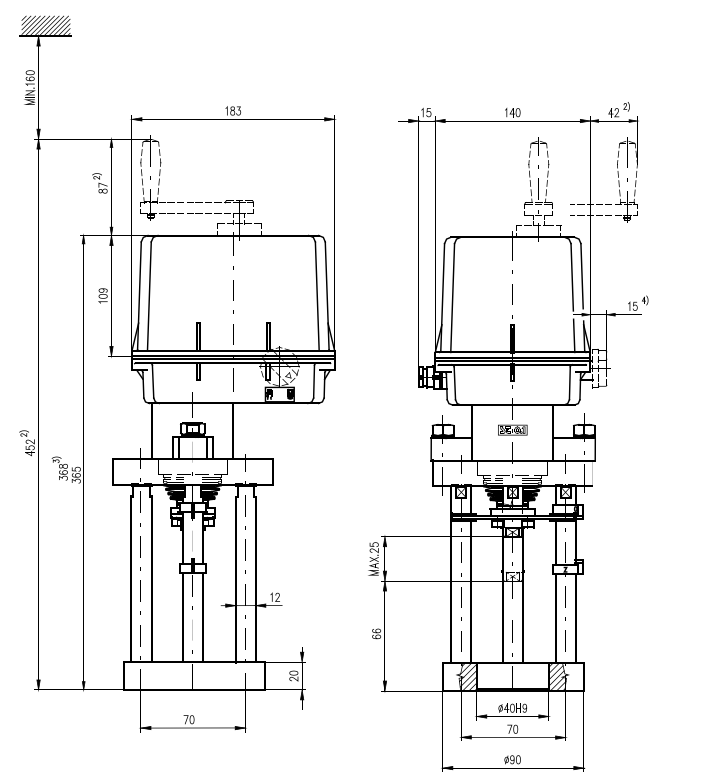
Legend:

- Z5c/ZK5c.....connection of single potentiometer
- Z6c/ZK6c.....connection of double potentiometer
- Z10g/ZK10g.....connection of CPT or electronic position transmitter - 2 - wire, passive
- Z21a/ZK21a.....connection of additional position switches
- Z33/ZK33.....connection of electric motor with thrust switches and position switches
- Z78v/ZK78v.....connection of 3-phase electromotor and space heater with thermal switch
- Z245e/ZK245e.....connection of thrust switches and position switch "open"
- Z245f/ZK245f.....connection of thrust switches and position switch "open"
- Z257j/ZK257j.....connection of electronic position transmitter - 3 - wire, passive
- Z257k/ZK257k.....connection of electronic position transmitter - 3 - wire, active
- Z260k/ZK260k.....connection of electronic position transmitter - 3 - wire, active
- Z260h/ZK260h.....connection of electronic position transmitter - 3 - wire, active
- Z269r/ZK269r.....connection of CPT or electronic position transmitter - 2 wire - active
- Z642e/ZK642e.....connection of DC electromotor, reverse board 24 V, space heater with thermal switch, thrust switches, position switch "open"

Legend:

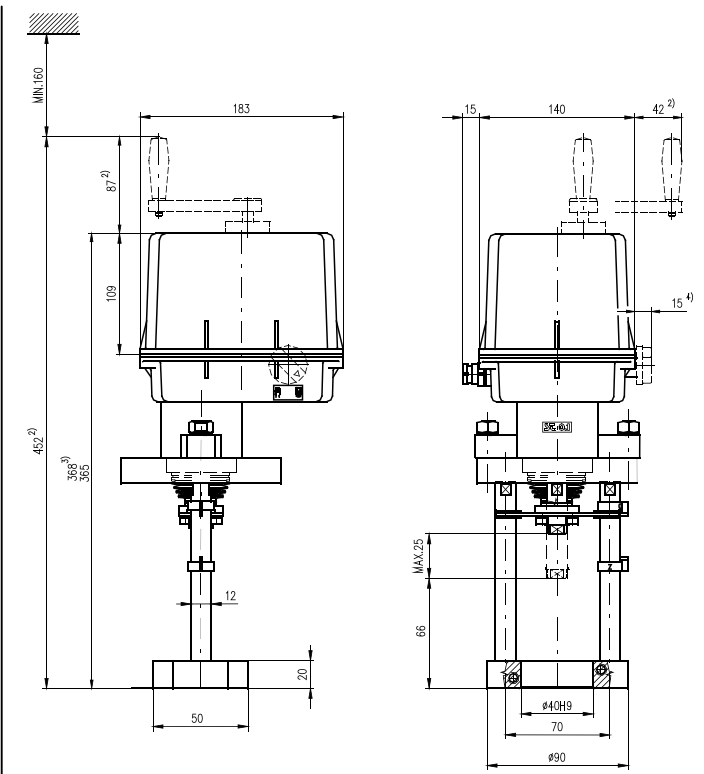
- B1.....single potentiometer
- B2.....double potentiometer
- B3.....CPT or electronic position transmitter
- B3a.....capacitive current transmitter (CPT)
- B3b.....DCPT current transmitter
- S1.....torque switch „open“
- S2.....torque switch „closed“
- S3.....position switch „open“
- S4.....position switch „closed“
- S5.....additional position switch „open“
- S6.....additional position switch „closed“
- M.....electric motor
- C.....capacitor
- E1.....space heater
- F1.....motor thermal protection
- F2.....thermal switch of the space heater
- F3.....reversing board fuse
- X.....terminal board
- X2.....reversing board terminal board
- X5.....local control terminal board
- R.....reducing resistor
- R_L.....loading resistor
- I.....output current signal
- RM2.....24 V reversing board
- U_N.....transmitter power supply voltage
- Y.....motor brake
- OPEN/STOP/CLOSE....local control buttons
- REMOTE/OFF/LOCAL..local control selection button

Dimensional drawing ST 0.1



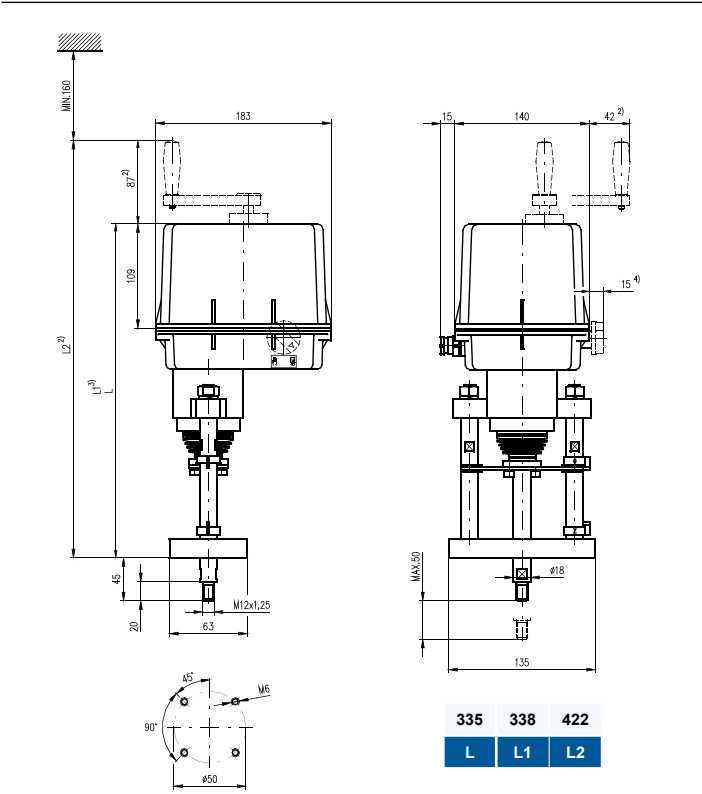
Notes:
2) Valid for manual control with permanent standby.
3) Valid for manual control without permanent standby.
4) Valid for manual control.

P-1470



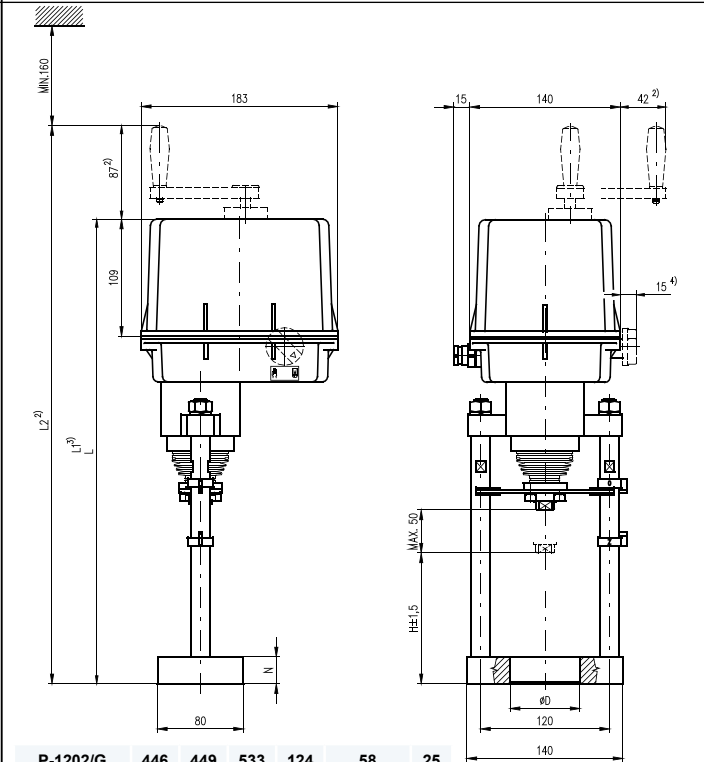
Notes:
2) Valid for manual control with permanent standby.
3) Valid for manual control without permanent standby.
4) Valid for manual control.

P-1472



Notes:
2) Valid for manual control with permanent standby.
3) Valid for manual control without permanent standby.
4) Valid for manual control.

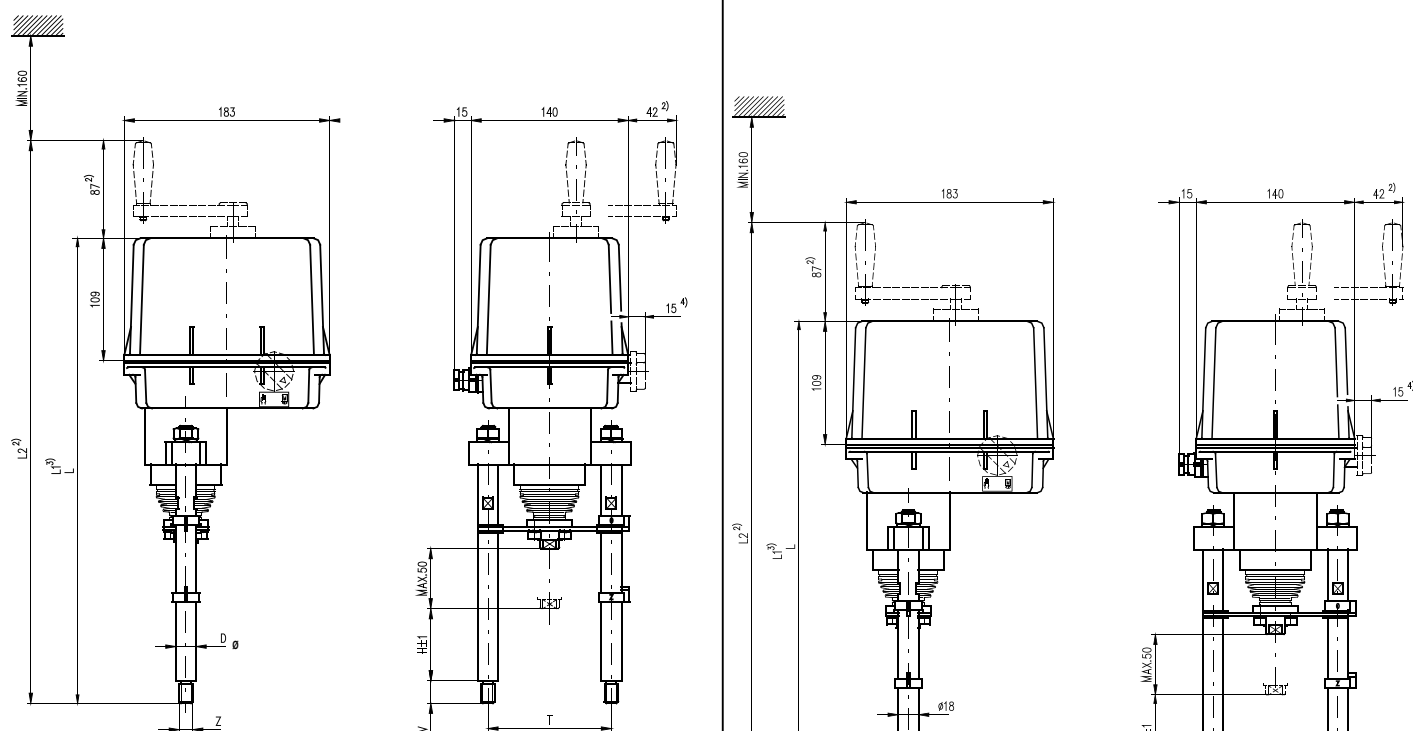
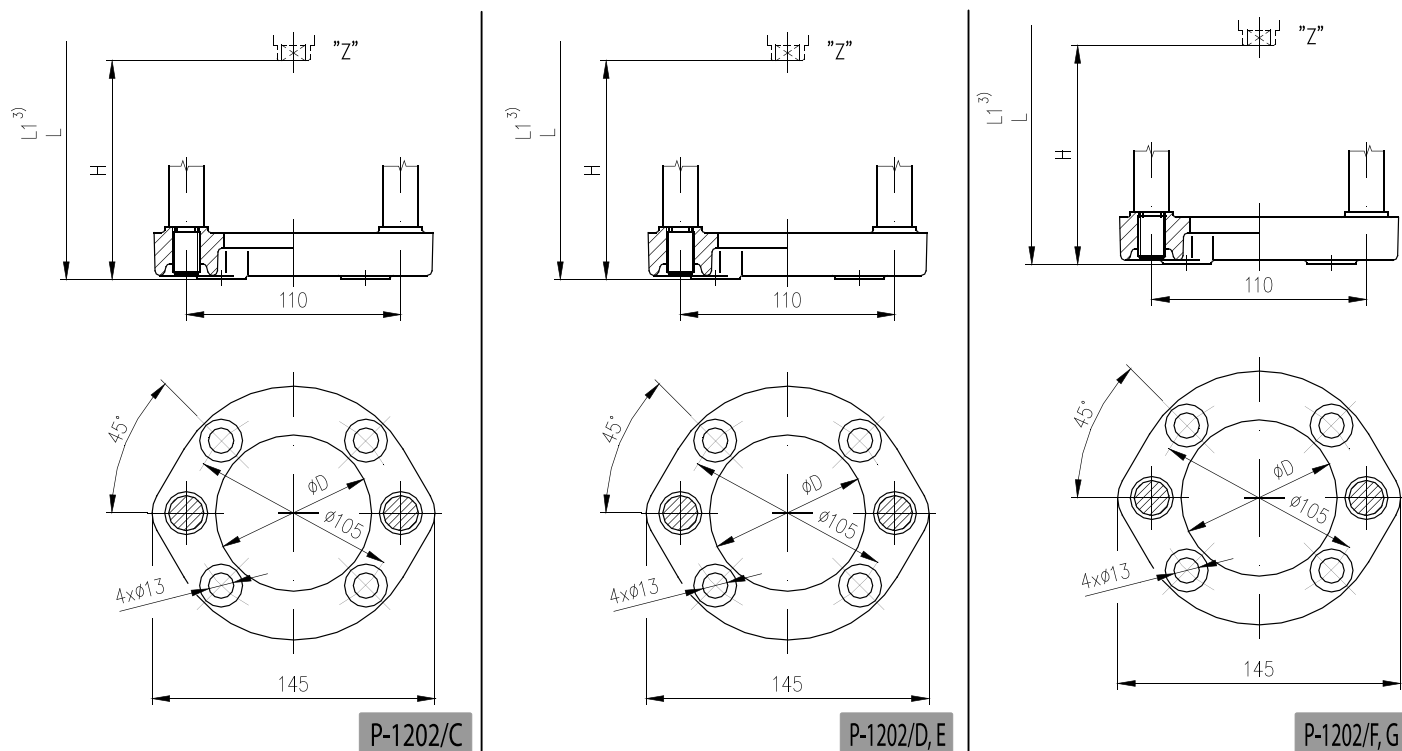
P-1201



P-1202/G	446	449	533	124	58	25
P-1202/F	416	419	503	94	58	20
P-1202/E	426	429	513	102	57.17 H8	17
P-1202/D	416	419	503	92	57.17 H8	17
P-1202/C	434	437	521	112	80 H8	-
P-1202/B	434	437	521	110	65 H12	25
P-1202/A	425	428	512	103	65 H12	25
Version	L	L1	L2	H	ØD	N

P-1202/A, B

Dimensional drawing ST 0.1



G	100	70	18	M16	16	408	411	495
F	100	110	18	M16	16	448	451	535
E	100	57	18	M16	16	395	398	482
D	100	27	18	M16	16	365	368	452
C	110	80	18	M12	32	434	437	521
B	110	42	18	M12	20	384	387	471
A	110	127	18	M12	20	469	472	556
Version	T	H	D	Z	V	L	L1	L2

Notes:

2) Valid for manual control with permanent standby.

3) Valid for manual control without permanent standby.

4) Valid for manual control.

P-1203

P-1418/B	86	60	400	409	487
P-1418/A	59	38	373	376	460
Version	H	D	L	L1	L2

Notes:

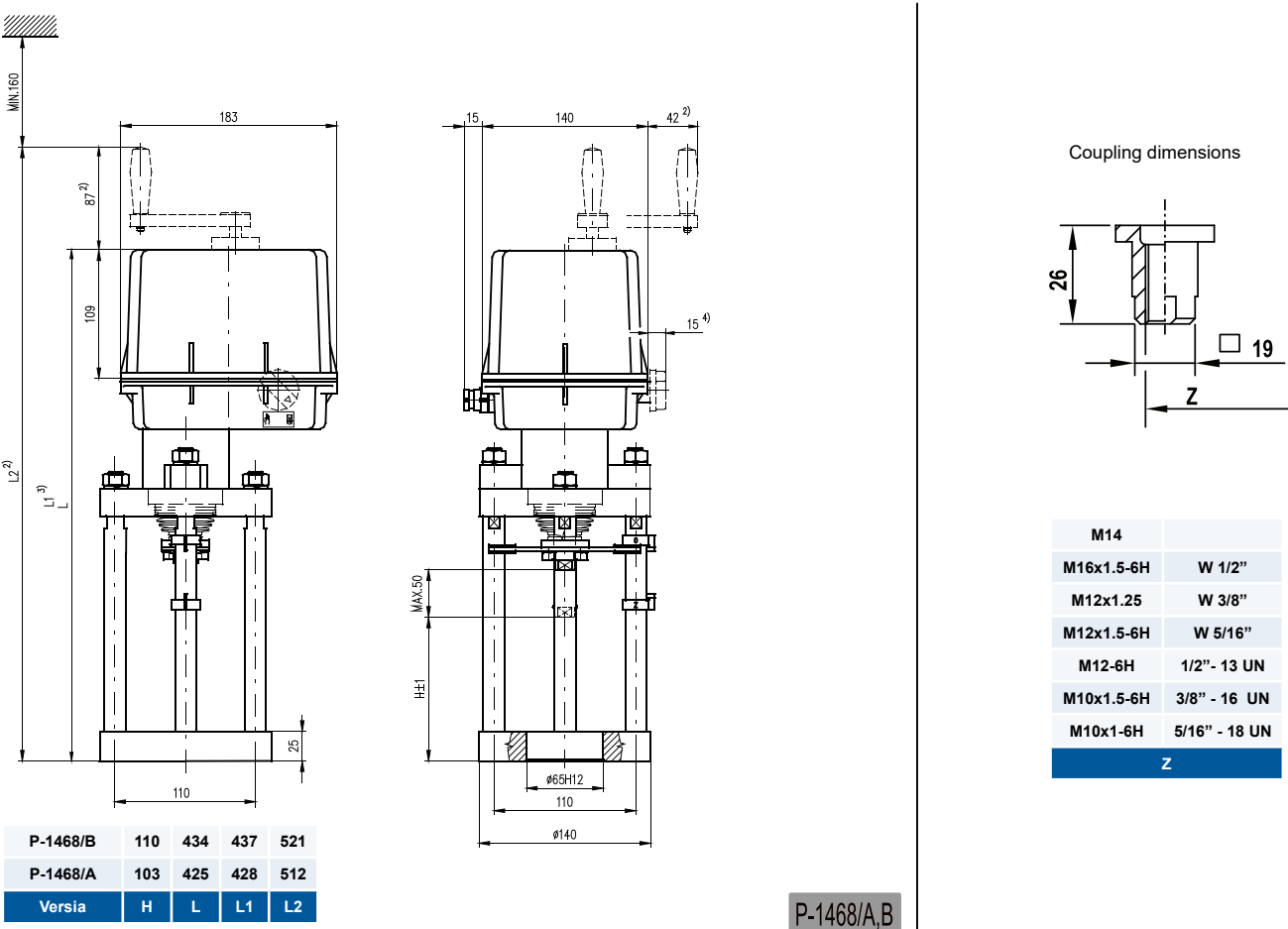
2) Valid for manual control with permanent standby.

3) Valid for manual control without permanent standby.

4) Valid for manual control.

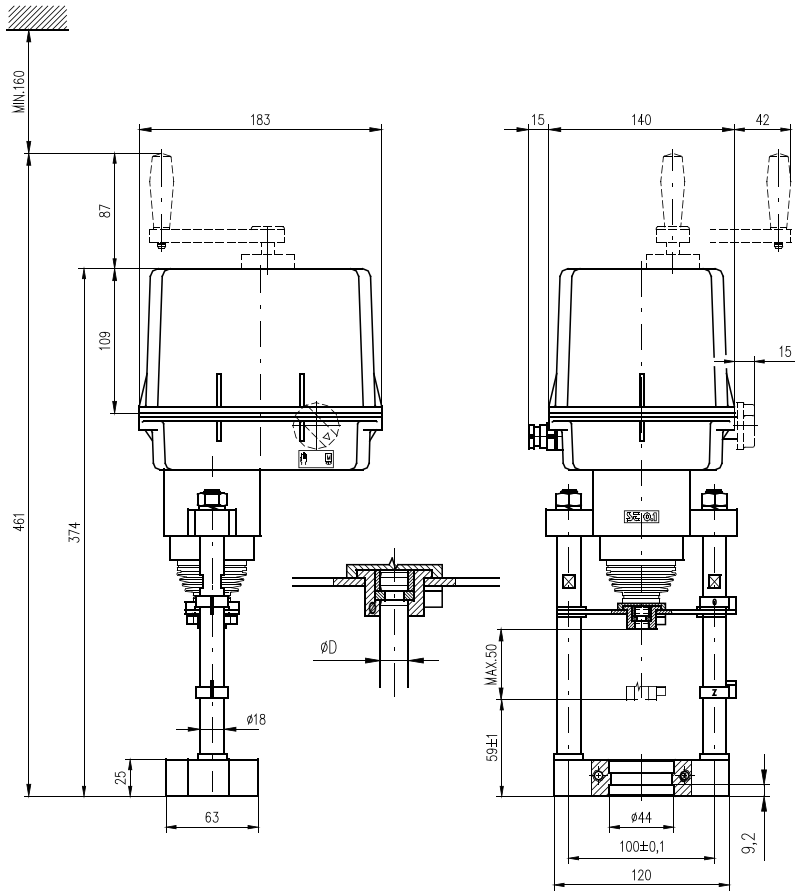
P-1418

Dimensional drawing ST 0.1



Mechanical connection to control valve RV 113M

D=12; for DN = 15-80; stroke = 20 mm
D=18; for DN = 100-150; stroke = 40 mm



P-2075