

STANDARD

ST MINI

STANDARD EQUIPMENT

- Voltage 230 V AC
- Terminal board connection
- Control variants:
 - 1 thrust switch + 1 position switch
 - 2 thrust switches
 - 1 position switch + 2 thrust switches
 - 2 position switches + 2 thrust switches
- Mechanical position indicator
- Pillar mechanical connection
- Manual control
- Protection code IP 67



Specification table ST MINI

Order code

472. X - X X X X X / X X

Climate resistance	Ambient temperature	Corrosivity category ¹⁰⁾	Enclosure	
Standard	-25°C ... +55°C	C3	IP 67	0
Standard	-25°C ... +55°C	C3	IP 68 ¹¹⁾	5

Electric connection	Voltage	Wiring diagram	
To terminal board	230 V AC	Z20 ²⁶⁾	0
	24 V AC		3

Switching-off thrust	Max. load thrust ³³⁾	Operating speed	Electric motor	
250 N	220 N	5 mm/min	2.75 W	4
480 N	440 N			0
700 N	630 N			1
920 N	830 N			2
1 100 N	1 000 N			3
250 N	220 N	7.5 mm/min	2.75 W	9
480 N	440 N			5
700 N	630 N			6
920 N	830 N			7
1 100 N	1 000 N			8
250 N	220 N	10 mm/min	2.75 W	E
480 N	440 N			A
700 N	630 N			B
920 N	830 N			C
1 100 N	1 000 N			D
250 N	220 N	15 mm/min	2.75 W	J
480 N	440 N			F
700 N	630 N			G
920 N	830 N			H
1 100 N	1 000 N			N
250 N	220 N	30 mm/min	2.75 W	P
480 N	440 N			Q
700 N	630 N			R
920 N	830 N			S
1 100 N	1 000 N			T
250 N	220 N	40 mm/min	2.75 W	W
480 N	440 N			U
700 N	630 N			V

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Order code

472. X - X X X X X / X X

Switching	Operating stroke ⁴¹⁾		
	max. without transmitter	with transmitter	
Single-thrust Wiring diagram Z20 ²⁶⁾ Switches S2, S3	16 mm	6 mm	0
		7 mm	1
		8 mm	A
		10 mm	B
		12.5 mm	C
		16 mm	D
	25 mm	20 mm	E
		25 mm	F
Dvojsilové Wiring diagram Z20 ²⁶⁾ Switches S1, S2	16 mm	6 mm	2
		7 mm	3
		8 mm	N
		10 mm	P
		12.5 mm	Q
		16 mm	R
	25 mm	20 mm	S
		25 mm	T

Transmitter		Connection	Output	Wiring diagram	
Without transmitter		-	-	-	A
Potentiometer ²⁶⁾	Single	-	1 x 100 Ω	Z5c	B
			1 x 2 000 Ω		C
Electronic position transmitter ⁵¹⁾	Passive	2-wire	4 - 20 mA	Z23	S
		3-wire	0 - 20 mA	Z257j	T
			4 - 20 mA		V
			0 - 5 mA		Y
Electronic position transmitter ⁵¹⁾		3-wire	0 - 10 V	Z257k	G

Mechanical connection	Connecting height	Thread of stem ⁶²⁾	Dimensional drawing	
Pillars	66	M8x1-22 M10x1-22 M12-22 M12X1.25-22 M14-22 M5-22 M10x1.5-22 W5/16"- 22 W3/8"- 22 Without hole	P-1476/A	B
	92.5		P-1476/B	G
Flange	50		P-1478	W
	62		P-1477/A	Y
	66		P-1477/B	C
	65		P-1479/A	8
	69		P-1479/B	9

Additional equipment		Wiring diagram		
A	2 position switches + 2 thrust switches	Z287	0	0
B	1 position switch (S4) ²⁶⁾	Z306, Z307 ⁷²⁾	0	1
C	2 additional position switches	Z21a ⁷⁸⁾	0	2
D	1 position switch + 2 thrust switches - inverse function ²⁶⁾	Z287c	0	3
E	3 position switches + 2 thrust switches - inverse function ²⁶⁾ ⁴²⁾	Z287c + Z307b	0	4
H	Gold coated contacts of microswitches details after consulting with the producer		4	0

Notes:

10) Climate resistance according to ISO 9223/ EN ISO 12944-2.

11) IP 68-10m/48 hours

26) For the version of the actuator with positional switches (S3, S4) or with a transmitter, contacts drawn in dashed line are not led to terminal board. Wiring connection is limited by max. number of 10 terminals.

33) By this thrust it is possible to load the actuator under duty cycle S2-10min, or S4-25%, 6-90 cycles per hour. For duty cycle S4-25%, 90-1200 cycles per hour this thrust equals max. load thrust multiplied by 0.8.

41) The version without any transmitter can have its stroke adjusted from 0 up to maximum stroke.

42) This wiring can be used as single-thrust or as double-thrust (also for inverse function of a valve) or as switching-off from a position. For the electric motor connection through the thrust switches, the position switches are non-functional. For the electric motor connection through the position switches, the thrust switches serve as overload protection at the mid-position, not on the valve seat.

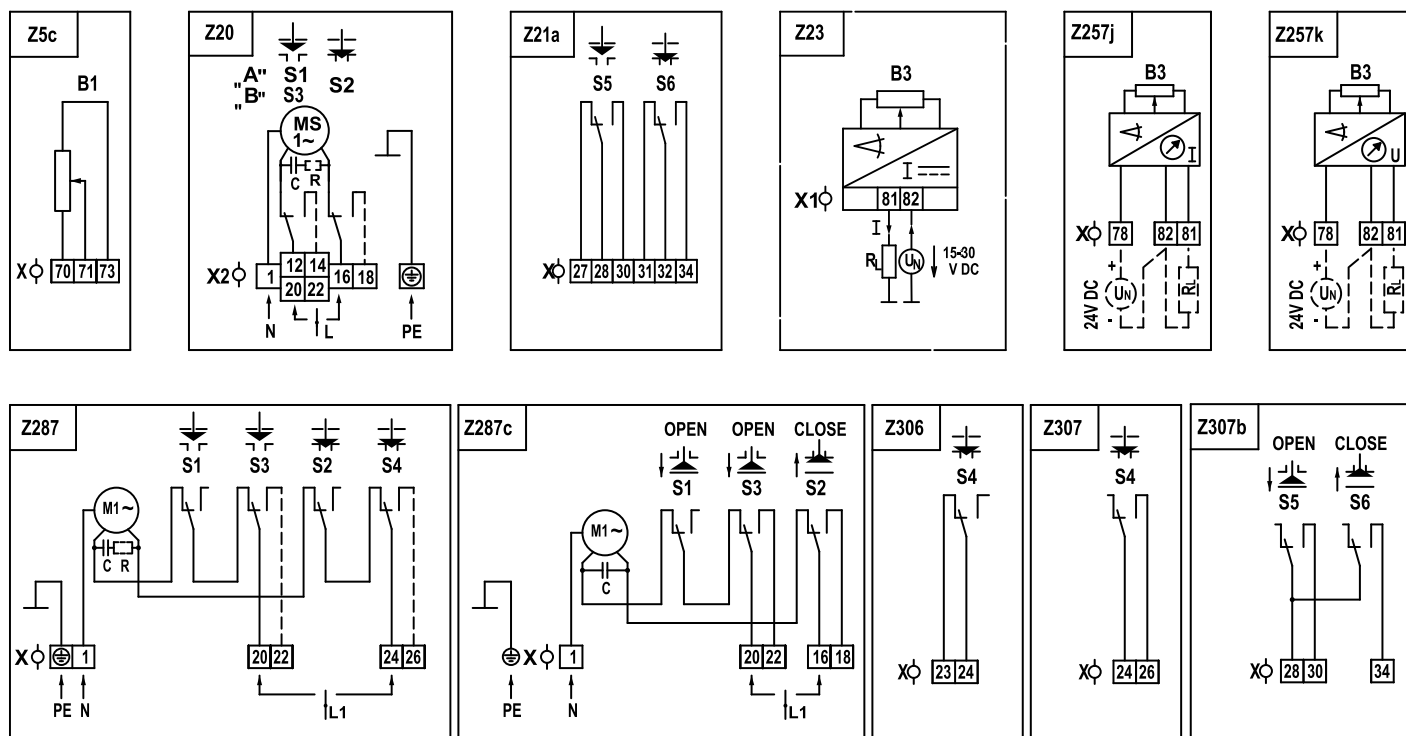
51) Electronic current transmitter, cannot be combined with wiring Z307b.

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

72) Wiring must be specified in the order.

78) Valid only for version without position transmitter in combination with diagram Z20

Wiring diagrams

**Electric connection:**

to terminal board with 10 terminals, wire cross section max. 1,5 mm², via 2 cable glands:

- 1 x M16x1,5 for cable diameter 6 to 10,5 mm
- 1 x M12x1,5 for cable diameter 4 to 7 mm

Notes:

1. Wiring connection is limited by max. number of 10 terminals..

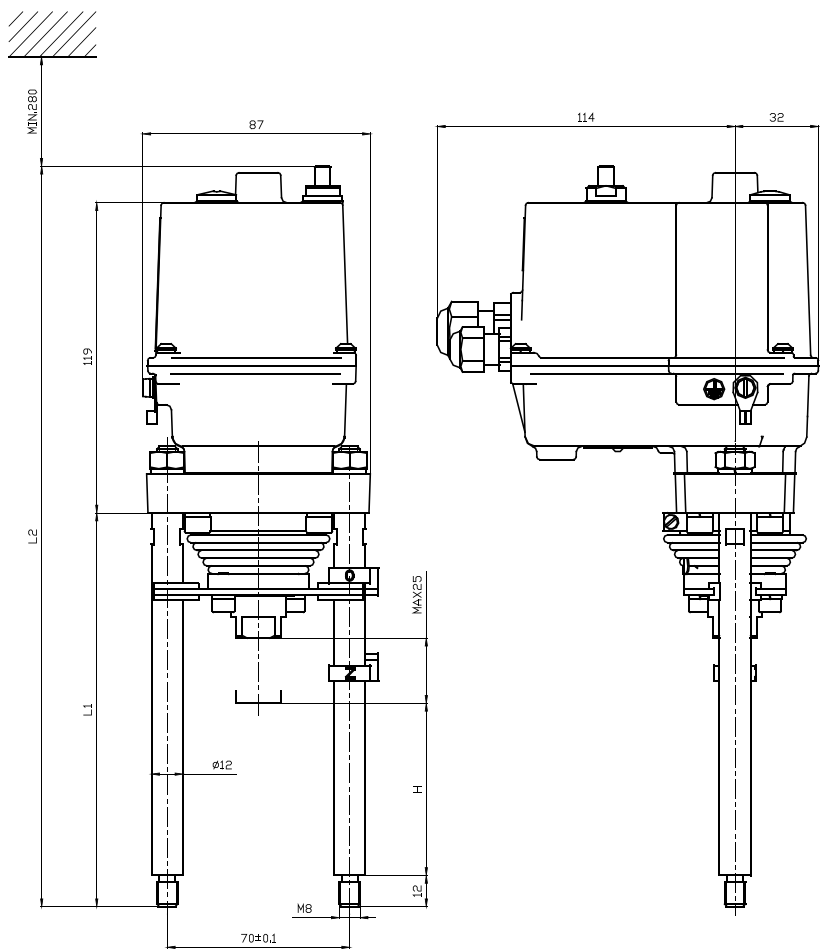
Legend:

Z5c.....connection of single potentiometer
 Z20.....connection of an electric motor: "A" -with 2 thrust switches S1, S2;
 "B" - with 1 thrust switch S2 and 1 position switch S3
 Z21a.....connection of additional position switches
 Z23.....connection of electronic position transmitter -2-wire, passive
 Z257j.....connection of electronic position transmitter - 3 - wire, passive
 Z257k.....connection of electronic position transmitter - 3 - wire, passive
 Z287.....connection of electric motor with a thrust and position switches
 Z287c.....connection of electric motor with a thrust and position switches
 Z306.....connection of position switch - normally closed contact
 Z307.....connection of position switch - clamping contact
 Z307b.....connection of position switch

Legend:

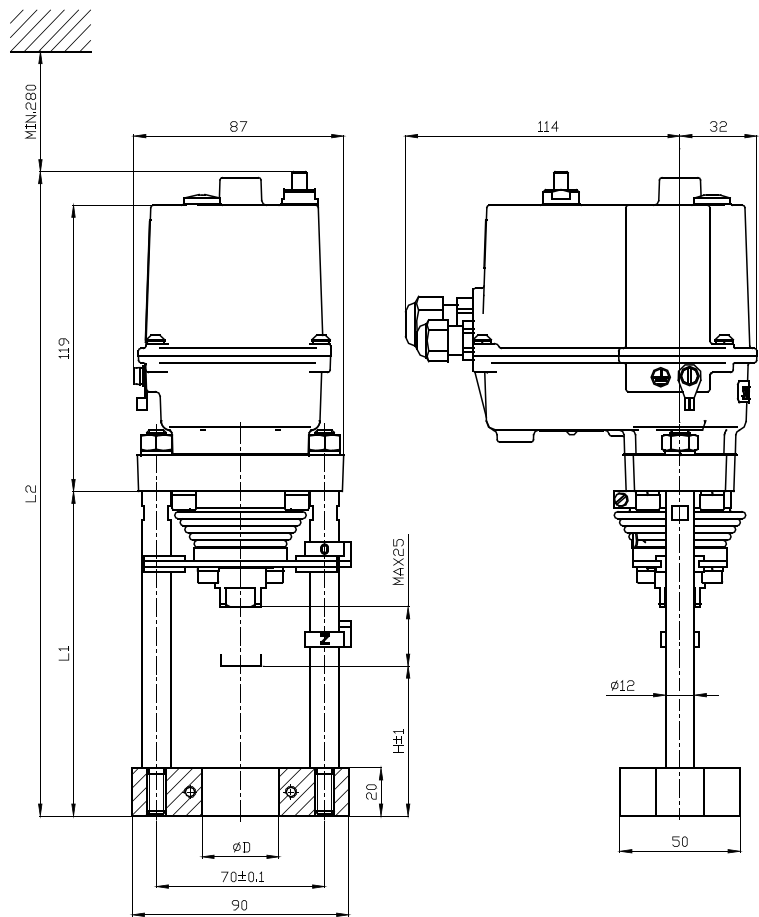
B1.....single potentiometer
 B3.....electronic position transmitter
 C.....capacitor
 R.....reducing resistor
 R_L.....loading resistor
 M.....electric motor
 S1.....torque switch „open“
 S2.....torque switch „closed“
 S3.....position switch „open“
 S4.....position switch „closed“
 S5.....additional position switch „open“
 S6.....additional position switch „closed“
 X, X1, X2.....terminal board
 I.....output current signal

Dimensional drawing SP MINI



P-1476/B	92.5	177.5	310.5
P-1476/A	66	151	284
Version	L	L1	L2

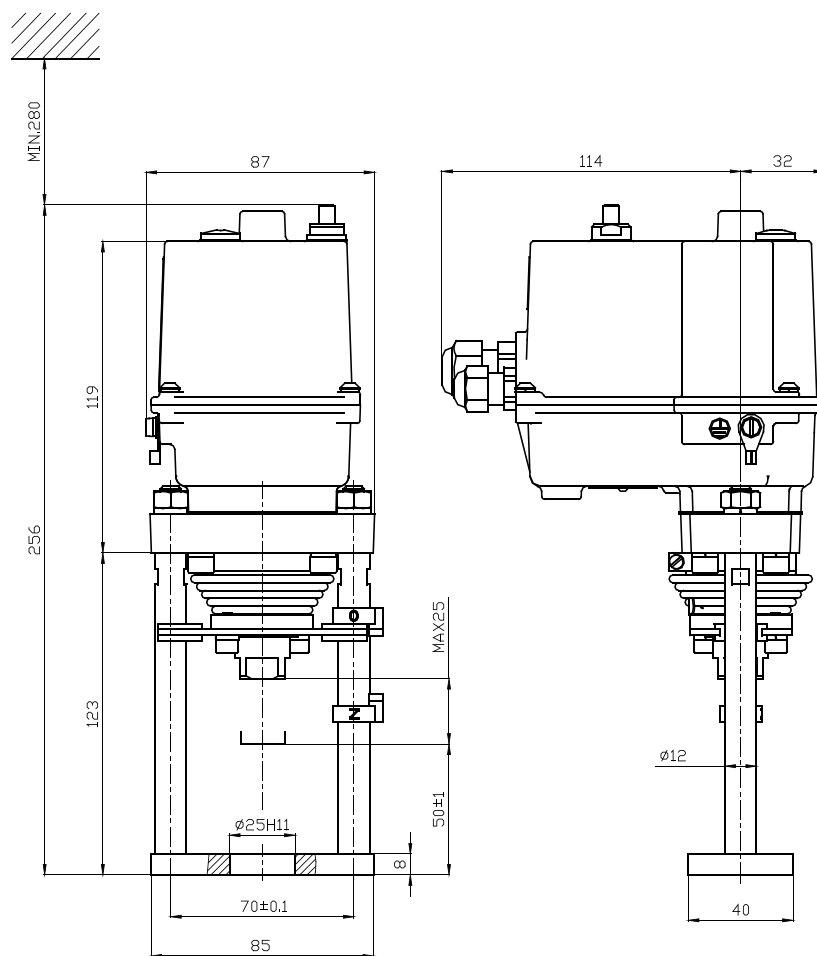
P-1476



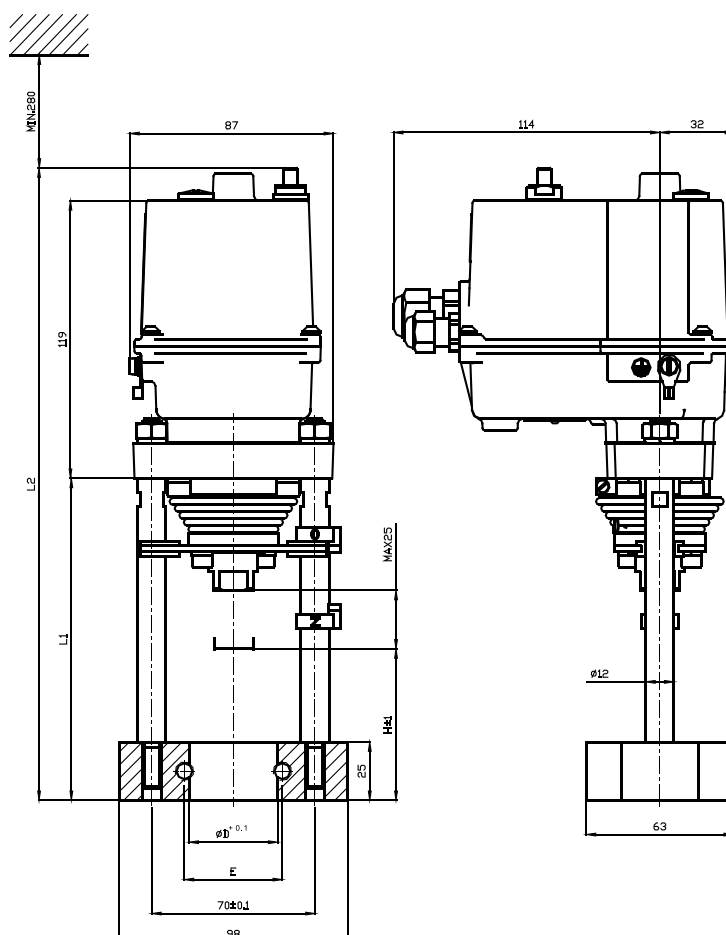
P-1477/B	Ø40	66	139	272
P-1477/A	Ø32	62	135	268
Version	ØD	L	L1	L2

P-1477

Dimensional drawing SP MINI



P-1478

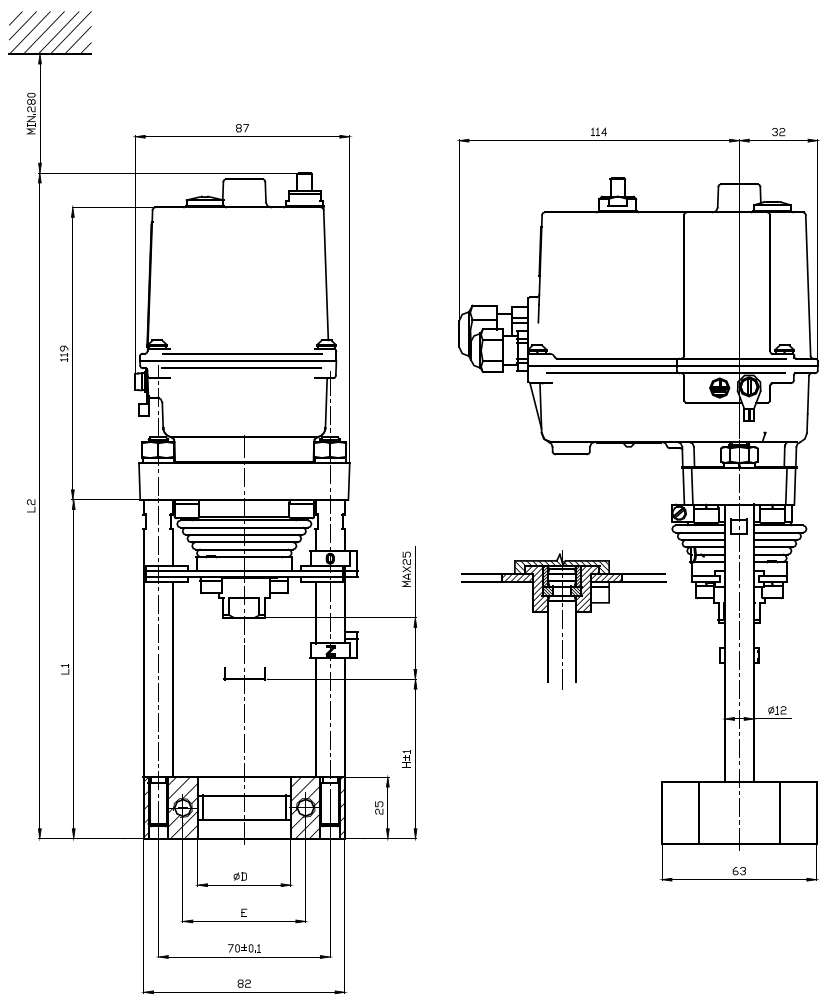


P-1479/B	Ø35	40	9	142	275
P-1479/A	Ø38	42	65	138	271
Version	ØD	E	L	L1	L2

P-1479

Dimensional drawing SP MINI

Mechanical connection to control valve RV 113M



Ø44	53	59	129	265
ØD	E	H	L1	L2

P-2014