



SP 2

- 220 V AC
- 2
- 2
-
-
-
-
- IP 67

ISO 5211

| | | | | | | | | | | | | | |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 282. | X | - | X | X | X | X | X | X | X | X | X | X | X |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

| | | 10) | | |
|----------|----------|-----------------|----|----------------------|
| <i>/</i> | <i>o</i> | <i>e</i> | | |
| 3.1 | | -25°C ... +55°C | C3 | IP 67 |
| | | -25°C ... +55°C | C3 | IP 68 ¹¹⁾ |
| B2 | + | -25°C ... +55°C | C4 | IP 67 |
| 2 | | -50°C ... +40°C | C3 | IP 67 |
| 2 | | -25°C ... +55°C | C3 | IP 67 |
| 1 | - | -50°C ... +40°C | C4 | IP 67 |
| 2 | | -60°C ... +40°C | C3 | IP 67 |

| | | 230 V AC | Z1a + Z11a | 0 |
|-----|--|---------------------------|----------------------------|---|
| | | 220 V AC | | L |
| | | 3x400 V AC | Z78a + Z12a ²²⁾ | 9 |
| | | 3x400 V AC ²⁸⁾ | Z303 + Z12a ²²⁾ | 2 |
| | | 3x380 V AC | Z78a + Z12a ²²⁾ | M |
| | | 3x380 V AC ²⁸⁾ | Z303 + Z12a ²²⁾ | N |
| | | 24 V AC | Z507a | 3 |
| | | 24 V DC | Z503a | A |
| 21) | | 230 V AC | Z1a + Z11a | 5 |
| | | 220 V AC | | P |
| | | 3x400 V AC | Z78a + Z12a ²²⁾ | 7 |
| | | 3x400 V AC ²⁸⁾ | Z303 + Z12a ²²⁾ | 6 |
| | | 3x380 V AC | Z78a + Z12a ²²⁾ | R |
| | | 3x380 V AC ²⁸⁾ | Z303 + Z12a ²²⁾ | S |
| | | 24 V AC | Z507a | C |
| | | 24 V DC | Z503a | 8 |

| | 33) | 230 V, 220 V AC | | 3x380, 3x400 V AC, 24 V AC/DC | | | |
|--------|--------|-----------------|----------|-------------------------------|------------------------|--------------------|---|
| | | | | 34) | | | |
| 72 Nm | 63 Nm | 5 s/90° | 60 W | 5 s/90° | 65 W, 24 V AC/DC | 90 W 3x400 V AC | 0 |
| 145 Nm | 125 Nm | 10 s/90° | | 10 s/90° | | | 1 |
| | | 20 s/90° | 20 s/90° | 2 | | | |
| | | 40 s/90° | 40 s/90° | 3 | | | |
| | | 80 s/90° | - | - | 4 | | |

| | | 60° | A |
|--|-------------------------------|------|---|
| | | 90° | B |
| | | 120° | C |
| | | 160° | D |
| | | 60° | K |
| | | 90° | L |
| | | 120° | M |
| | | 160° | N |
| | | 360° | P |
| | > 0° < 360° ⁴¹⁾ | Z | |

| | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|
| 282. | x | - | x | x | x | x | x | / | x | x |
|------|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | |
|-----|-----|----------|----------|-------------|-----------|-------|-------|---|---|---|---|
| | | | | | | | | | | | |
| | | - | - | - | - | - | - | - | - | A | |
| | | | | 1 x 100 W | | Z5a | | | | B | |
| | | | | 1 x 2 000 W | | | | | | F | |
| | | 22) | - | 2 x 100 W | | Z6a | | | | K | |
| | | | | 2 x 2 000 W | | | | | | P | |
| R/I | | 2- | | 4 - 20 mA | | Z10a | | | | S | |
| | | | 3- | | 0 - 20 mA | | Z257b | | | T | |
| | | | | | 4 - 20 mA | | | | V | | |
| | | | 0 - 5 mA | | | Y | | | | | |
| | | 59) | 2- | | 4 - 20 mA | | Z269a | | | | Q |
| | | | 3- | | 0 - 20 mA | | Z260a | | | | U |
| | | | | 4 - 20 mA | | | | W | | | |
| | | 0 - 5 mA | | | | Z | | | | | |
| | CPT | 59) | 2- | | 4 - 20 mA | | Z10a | | | | I |
| | | | | | | Z269a | | | J | | |

| | | | | | | | | | | |
|----------|---------|------|--------------------|-----|--|--------------------|----------------------------|---|--|---|
| | | ISO | | | | | | | | |
| | | D-17 | 17x17 | | | | | | | A |
| | | L-17 | | | | | | | | B |
| | | H-17 | 17x25 | | | | | | | C |
| | | V-16 | ∅16 ⁶²⁾ | | | | | | | 8 |
| | | V-28 | ∅28 ⁶²⁾ | | | | | | | D |
| | | H-11 | 11x18 | | | | | | | N |
| ISO 5211 | F05/F07 | D-16 | 16x16 | | | P-1147 P-2148/E | | | | R |
| | | L-16 | | | | | S | | | |
| | | D-14 | 14x14 | | | | E | | | |
| | | L-14 | | | | | F | | | |
| | | H-14 | 14x22 | | | | G | | | |
| | | V-22 | ∅22 ⁶²⁾ | | | | H | | | |
| | | V-30 | ∅30 ⁶³⁾ | | | | V | | | |
| | | - | ∅8 ⁶⁴⁾ | | | | W | | | |
| | | H-13 | 13x19 | | | | Z | | | |
| | | F10 | V-20 | ∅20 | | | P-2068 | 9 | | |
| | | | - | ∅25 | | | P-1162, P-0210 P-2148/E | J | | |
| | - | - | | K | | | | | | |
| | - | - | | L | | | | | | |

| | | | | | | | | | | |
|---|---|-----------|--|----------|-------------|---------|---------|---|---|--|
| | | | | 230 V AC | 3x400 V AC | 24 V AC | 24 V DC | | | |
| A | 2 | 22) | | Z11a | Z12a | Z507a | Z503a | 0 | 0 | |
| E | | | | Z1a | Z78a | Z507a | Z503a | 0 | 2 | |
| C | | (-40 °C) | | Z270i | Z90c, Z304a | Z509a | Z505a | 0 | 7 | |
| D | | | | Z1a | Z78a | Z507a | Z503a | 1 | 5 | |
| H | | e | | | | | | 4 | 0 | |

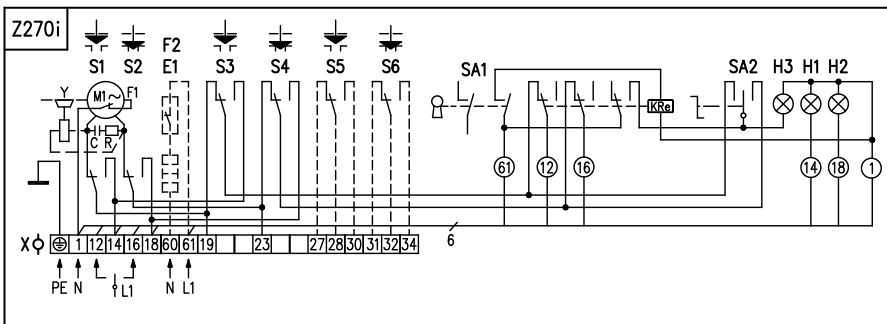
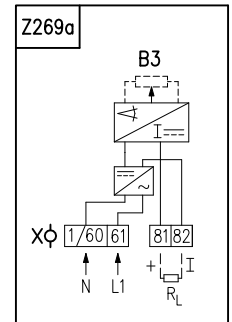
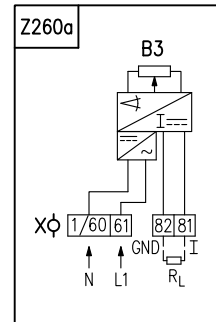
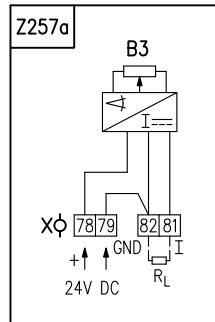
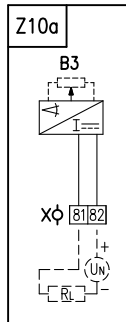
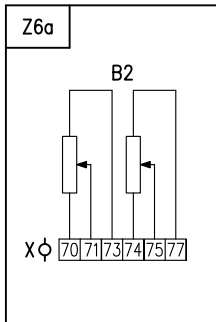
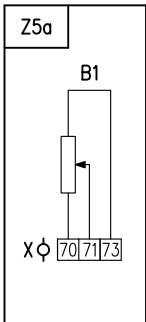
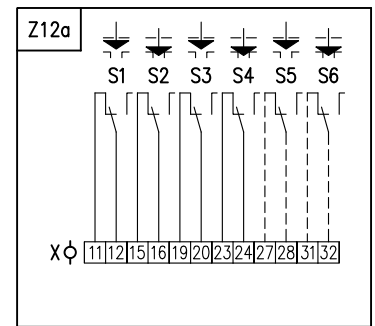
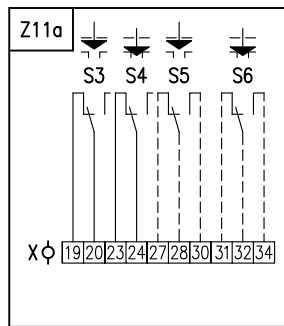
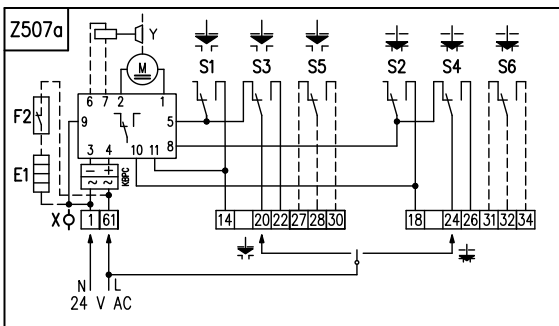
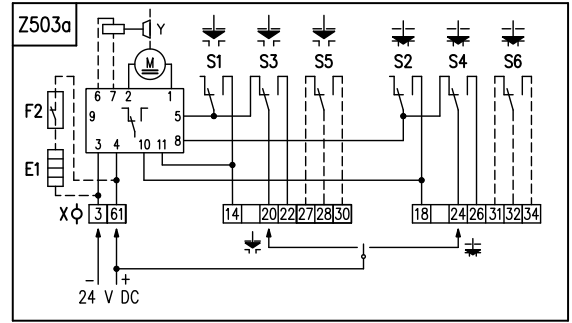
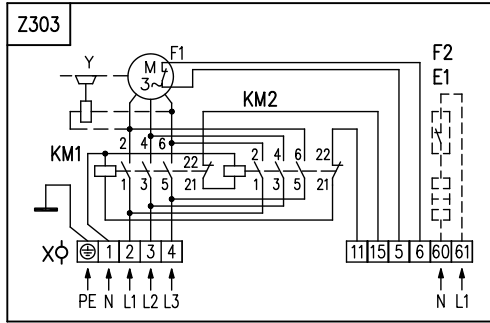
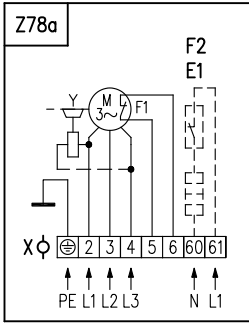
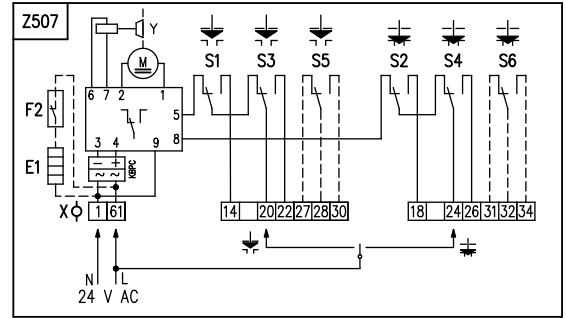
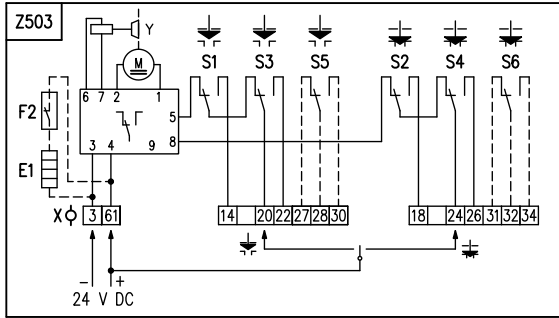
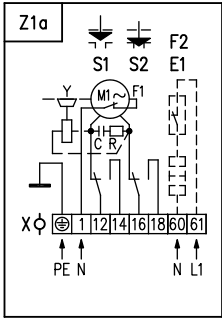
A+E=04, A+C=08, E+C=10, A+E+C=12, A+D=16, C+D=17, A+C+D=18

- 10) ISO 9223/EN ISO 12944-2.
- 11) IP 68 - 10 / 48
- 21) -40°
- 22) 3x400 (380)
- 28)
- 33) S2-10 min, S4-25%, 6-90 / 0.8
- 34) S4-25%, 90 - 1200 / 50% +30% ±10%
- 41) D
- 59) 24VAC/DC, ()
- 62)
- 63)
- 64) ∅8.

SP 2 . 28 - 30

24 : . 2,5 mm², 3 :
 - M20x1,5 8 14,5 mm (1)
 - M16x1,5 6 10,5 mm (2)

SP 1, SP 2, SP 2.3, SP 2.4



- 1.
- 2.
- 3.
- 4.

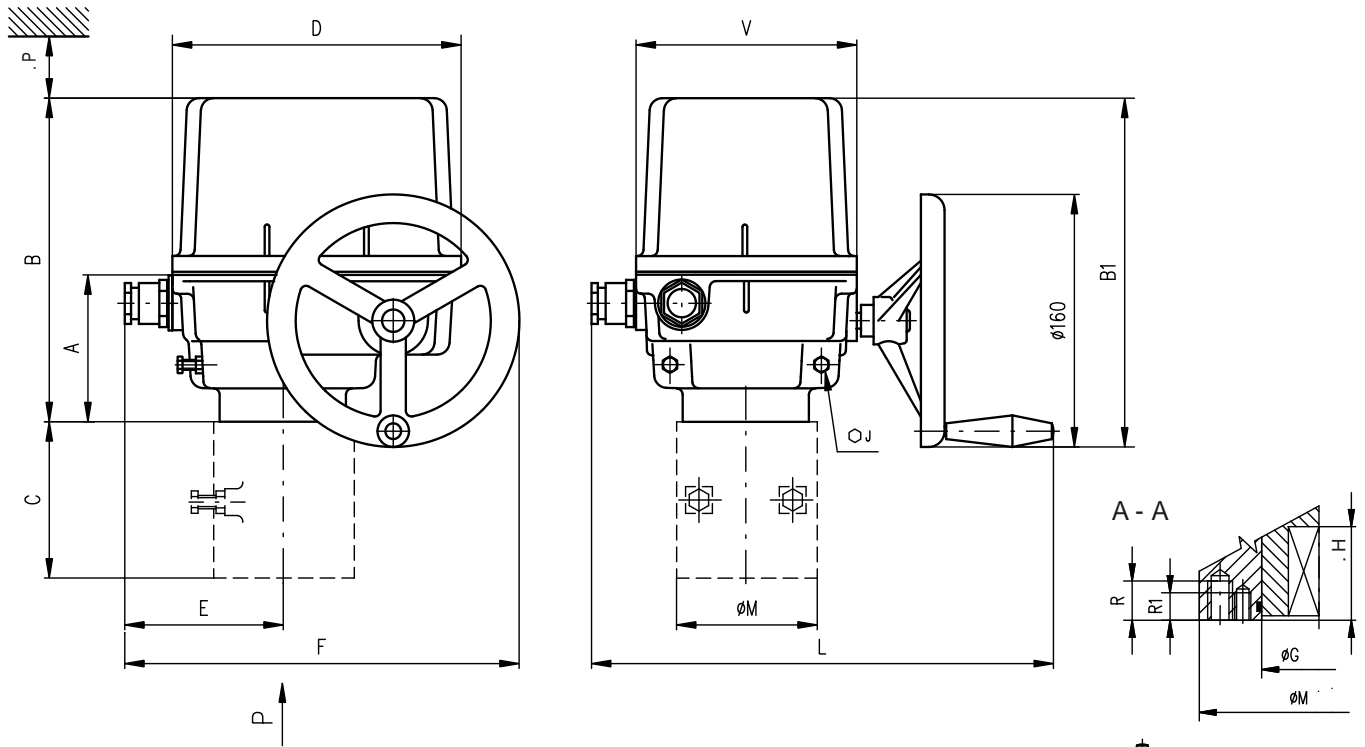
24.

24 VAC

PE.

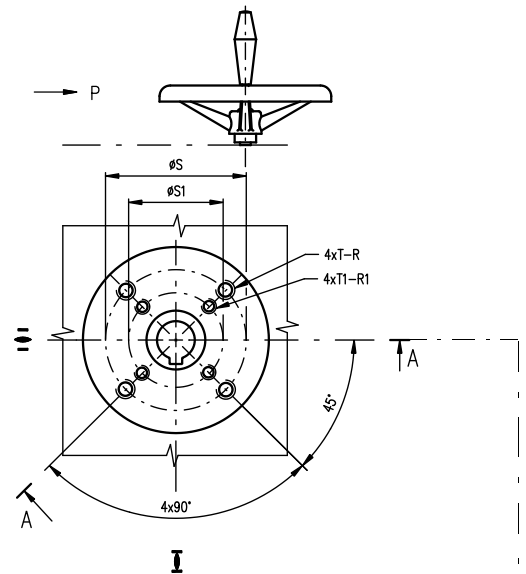
| | | | | | |
|----------------------|---|----------------------|---------|----------|---------|
| Z1 | : | | | | |
| Z5 c | , | | | | |
| Z6 | , | | | | |
| Z10 | | | | CPT - 2- | |
| Z11 | | | | | |
| Z12 | | S1 - S6 | | | |
| Z78 | | | | | |
| Z90c | | | | | |
| Z257 | | | - 3- | | |
| Z260 | | | - 3- | | |
| Z269 | | | | - 2- | |
| Z270i | | | | | |
| Z303 | | | | | |
| Z304a | | | | | |
| Z503 | | SP 1 | | 24 V DC | |
| Z503a | | SP 2, SP 2.3, SP 2.4 | | | 24 V DC |
| Z505 | | SP 2, SP 2.3, SP 2.4 | | | 24 V DC |
| Z505b | | SP 1 | | 24 V DC | |
| Z507 | | SP 1 | 24 V AC | | |
| Z507a | | SP 2, SP 2.3, SP 2.4 | | 24 V AC | |
| Z509a | | SP 2, SP 2.3, SP 2.4 | | 24 V AC | |
| Z509b | | SP 1 | 24 V AC | | |
| B1 | p | | | | |
| B2 | p | | | | |
| B3 | | | | CPT | |
| C | | | | | |
| E1 | | | | | |
| F1 | | | | | |
| F2 | | | | | |
| H1 | | " " | | | |
| H2 | | " " | | | |
| H3 | | " " | | | " |
| I | | | | | |
| KM1, KM2 | | | | | |
| M1 | | | | | |
| M3 | | | | | |
| R | | | | | |
| R _L | | | | | |
| SA1 | | | | - 0 - | " |
| SA2 | | " " | - " | | |
| S1 | | " " | " " | | |
| S2 | | " " | " " | | |
| S3 | " | " " | " " | | |
| S4 | " | " " | " " | | |
| S5 | | " " | " " | | |
| S6 | | " " | " " | | |
| X | | | | | |
| Y | | | | | |

SP 1, SP 2, SP 2.3, SP 2.4

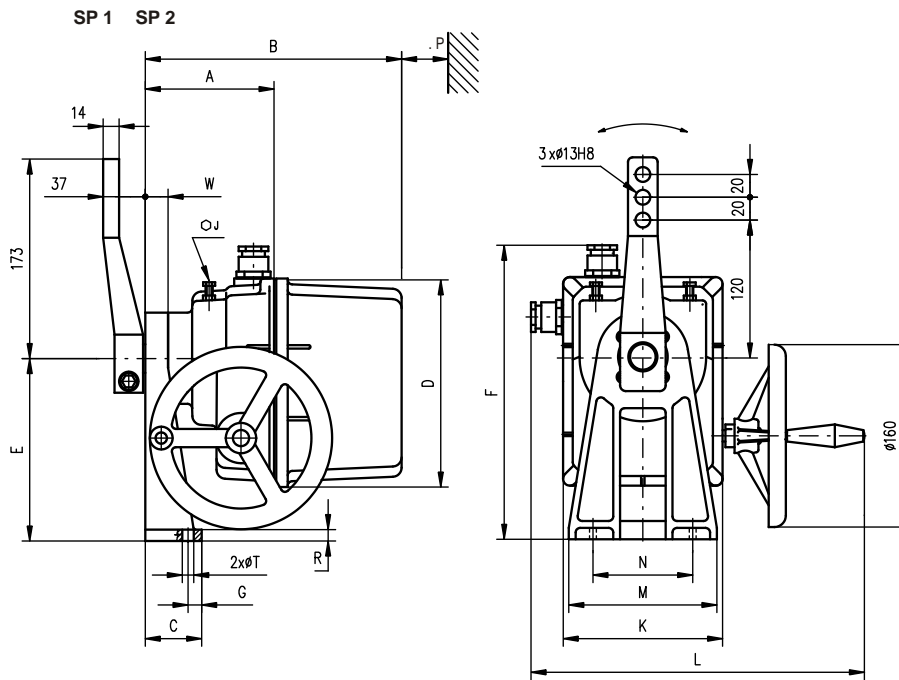


| | A | B | B1 | C | D | E | F | J | L | M | P | V |
|--------|-----|-----|-----|-----|-----|-----|-----|----|-------------|-----|-----|-----|
| SP 1 | 102 | 221 | 229 | - | 183 | 93 | 243 | 17 | 280 396* | 90 | 160 | 140 |
| SP 2 | | | | | | | | 17 | | 90 | | |
| SP 2.3 | 117 | 316 | 323 | 112 | 232 | 119 | 294 | 22 | 330 | 125 | 210 | 190 |
| SP 2.4 | | | | 127 | | | | 22 | 446* | 150 | | |

| | G | H | R | R1 | S | S1 | T | T1 | |
|--------|----|----|----|----|-----|-----|-----|-----|---------|
| SP 1 | 40 | 37 | 16 | 14 | 70 | 50 | M8 | M6 | F07/F05 |
| SP 2 | 40 | 49 | 18 | 14 | 70 | 50 | M8 | M6 | F07/F05 |
| SP 2.3 | 55 | 56 | 25 | 17 | 102 | 70 | M10 | M8 | F10/F07 |
| SP 2.4 | 65 | 71 | 30 | 25 | 125 | 102 | M12 | M10 | F12/F10 |



| D-xx (Axx) | | L-xx (Bxx) | | H-xx (Cxx) | | | V-xx (D01 - D09) | | V-30 (D10) | | |
|------------|----|------------|----|------------|----|----|------------------|------|------------|------|--|
| | | | | | | | | | | | |
| ISO | | ISO | | ISO | | | ISO | | | | |
| D-xx | U | L-xx | U | H-xx | U | V | V-xx | W | Z | X | |
| D-14 | 14 | L-14 | 14 | H-14 | 14 | 22 | V-20 | 20.0 | 22.5 | 6.0 | |
| D-17 | 17 | L-17 | 17 | H-11 | 11 | 18 | V-22 | 22.0 | 24.5 | 6.0 | |
| D-22 | 22 | L-22 | 22 | H-8 | 8 | 13 | V-32.2 | 32.2 | 35 | 6.5 | |
| D-27 | 27 | L-27 | 27 | H-17 | 17 | 25 | V-17 | 17.0 | 19.5 | 6.0 | |
| D-11 | 11 | L-11 | 11 | H-13 | 13 | 19 | V-28 | 28.0 | 30.9 | 8.0 | |
| D-16 | 16 | L-16 | 16 | H-22 | 22 | 32 | V-42 | 42.0 | 45.1 | 12.0 | |
| | | | | H-16 | 16 | 22 | V-45.4 | 45.4 | 48.8 | 10.0 | |
| | | | | H-27 | 27 | 48 | V-50 | 50.0 | 53.5 | 14.0 | |
| | | | | H-19 | 19 | 28 | V-18 | 18.0 | 20.5 | 6.0 | |
| | | | | H-10 | 10 | 16 | V-30 | 30.0 | 32.5 | 8.0 | |



| | A | B | C | D | E | F | F2 | G | W | J | K | L | M | N | P | R | T |
|------|-----|-----|----|-----|-----|-----|-------------|----|----|----|-----|-------------|-----|----|-----|----|------|
| SP 1 | 122 | 241 | 50 | 183 | 160 | 258 | 273 345* | 12 | 20 | 13 | 140 | 280 396* | 130 | 80 | 160 | 10 | 10.5 |
| SP 2 | 145 | 344 | 58 | 232 | 200 | 323 | - | 30 | 28 | 17 | 190 | 330 446* | 160 | 90 | 210 | 11 | 12.6 |

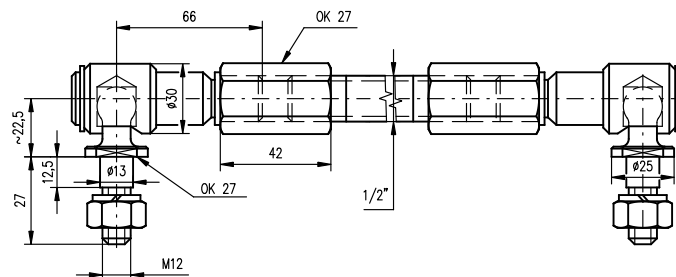
SP 1 SP 2

E

| Exx | | H | S | U | V | Z | Y | Y1 |
|------|------|----|---|----|----|---|---|-----|
| SP 1 | 24.5 | 22 | 6 | 28 | 25 | 2 | 2 | E01 |
| SP 2 | 27.9 | 25 | 8 | 35 | 28 | 2 | 2 | E02 |

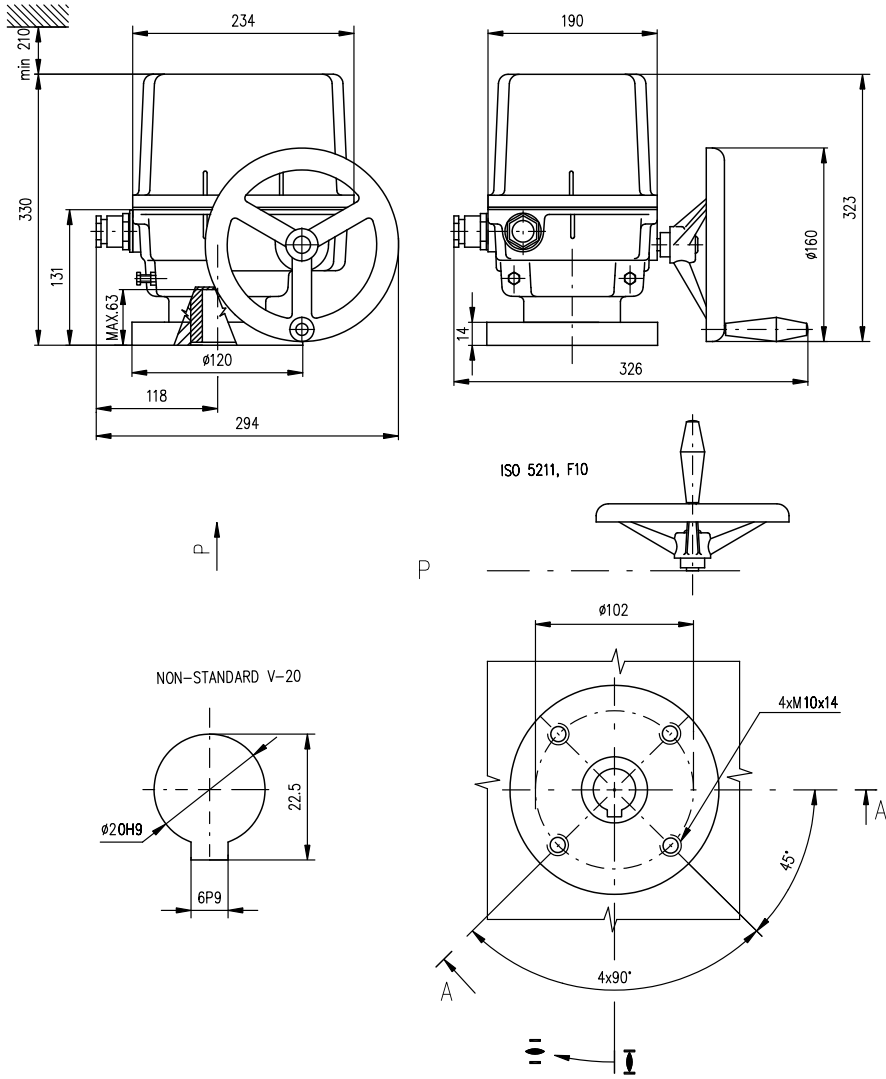
P - 1162

TV 160



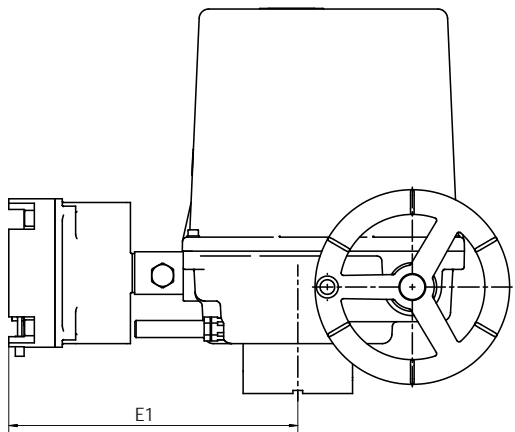
P - 0210

SP 2 F10



P - 2068

SP 1 SP 2



| | | | |
|------|----------|-----------------|-----|
| SP 2 | P-2148/E | -25 °C / -50 °C | 238 |
| SP 1 | P-2148/A | -25 °C / -50 °C | 238 |
| | | o . | E1 |

P - 2148