



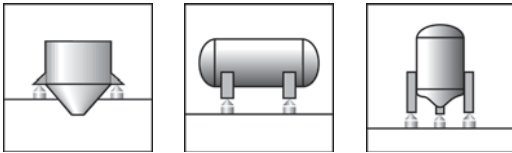
C2...

Load cells

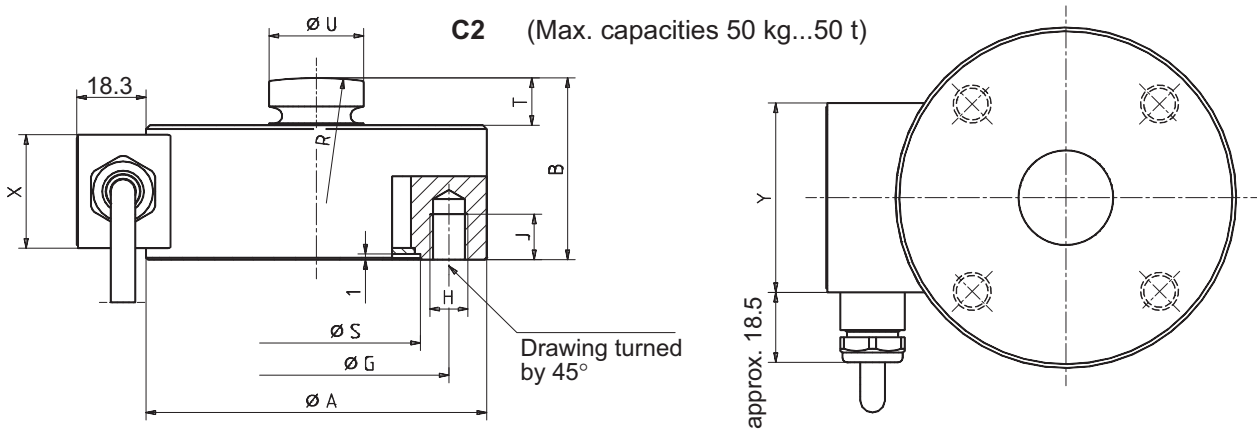


Special features

- Load cells made of stainless materials
- Max. capacities: 50 kg ... 50 t
- Small deflection
- High permissible dynamic load
- Six-wire circuit
- Low profile
- Meets EMC requirements according to EN 45 501
- Explosion proof version acc. to ATEX 95 (optional)



Dimensions (in mm; 1 mm= 0.03937 inches)



| Max. cap. [t] | ØA _{0.2} | B | ØG | H | J | R | ØSH ⁸ | T | ØU | X | Y |
|---------------|-------------------|----|-----|-------|----|-----|------------------|------|----|----|----|
| 0.05...1 | 50 | 30 | 42 | 4xM5 | 7 | 60 | 34 | 7 | 13 | 20 | 35 |
| 2 and 5 | 90 | 48 | 70 | 4xM10 | 12 | 100 | 55 | 12.5 | 25 | 30 | 50 |
| 10 and 20 | 115 | 60 | 90 | 4xM12 | 16 | 160 | 68 | 12.5 | 32 | 30 | 50 |
| 50 | 155 | 90 | 125 | 4xM16 | 20 | 300 | 97 | 15.5 | 44 | 30 | 50 |

Specifications

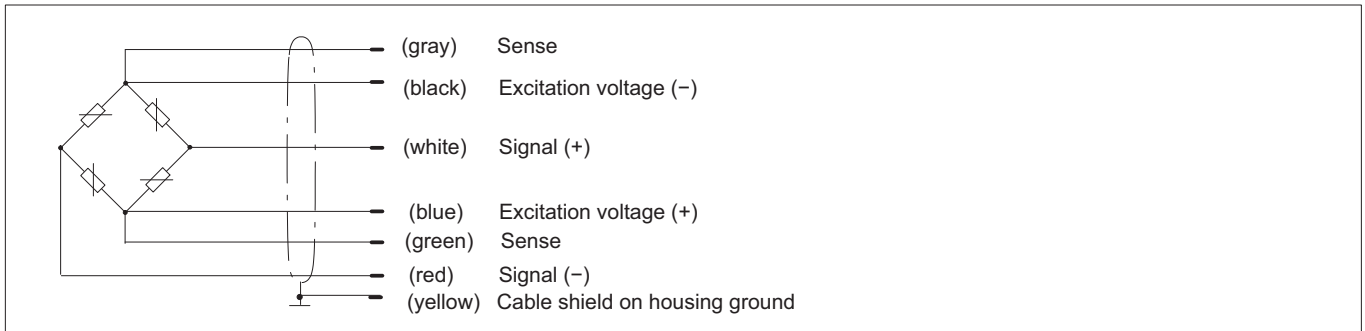
| Type | | C2 | |
|---|---------------------|--|--------------------------------------|
| Accuracy class | | 0.2 | 0.1 |
| Max. capacity | kg t | 50 - | 100, 200, 500 1, 2, 5, 10, 20, 50 |
| Sensitivity (C_n) | mV/V | 2 | |
| Tolerance on sensitivity | % | <±0.20 | |
| Temperature effect on sensitivity (TK_C) in the nominal temperature range in the service temperature range | %/10 K %/10 K | <±0.05 <±0.10 | |
| Temperature effect on zero balance (TK_0) in the nominal temperature range in the service temperature range | %/10 K %/10 K | <±0.05 <±0.10 | |
| Hysteresis error (d_{hy}) | % | <±0.15 | |
| Non-linearity (d_{lin}) | % | <±0.20 | <±0.10 |
| Creep (d_{DR}) over 30 min. | % | <±0.06 | |
| Input resistance (R_{LC}) | Ω | 340...450 | |
| Output resistance (R_0) | Ω | 356±0.2 | |
| Reference excitation voltage (U_{ref}) | V | 5 | |
| Nominal range of excitation voltage (B_U) | V | 0.5...10 | 0.5...12 |
| Max. permissible excitation voltage | V | 12 | 18 |
| Insulation resistance (R_{is}) | GΩ | >5 | |
| Nominal temperature range (B_T) | °C [°F] | -10...+40 [14...104] | |
| Operating temperature range (B_{tu}) | °C [°F] | -30...+85 [-22...185] (-30...+120) ¹⁾ [-22...248] ¹⁾ | |
| Storage temperature range (B_{st}) | °C [°F] | -50...+85 [-58...185] | |
| Safe load limit (E_L) | | 130 | 150 |
| Breaking load (E_d) | | 300 | |
| Rel. static lateral load limit (E_{lq}) | % of rated capacity | 50 | |
| Permissible dynamic load (F_{srel}) (peak to peak acc. to DIN 50100) | | 100 | |
| Degree of protection class (IP) to EN 60 529 (IEC 529) | | IP 68 (test conditions: 100 h at 1 m water column) IP 69 K (water at high pressure, steam jet cleaning) | |
| Material: Measuring body | | Stainless steel | |
| Cable gland | | Nickel plated brass, Silicone | |
| Cable sheath | | Thermoplastic elastomer | |

¹⁾ Optionally available with extended operating temperature range.

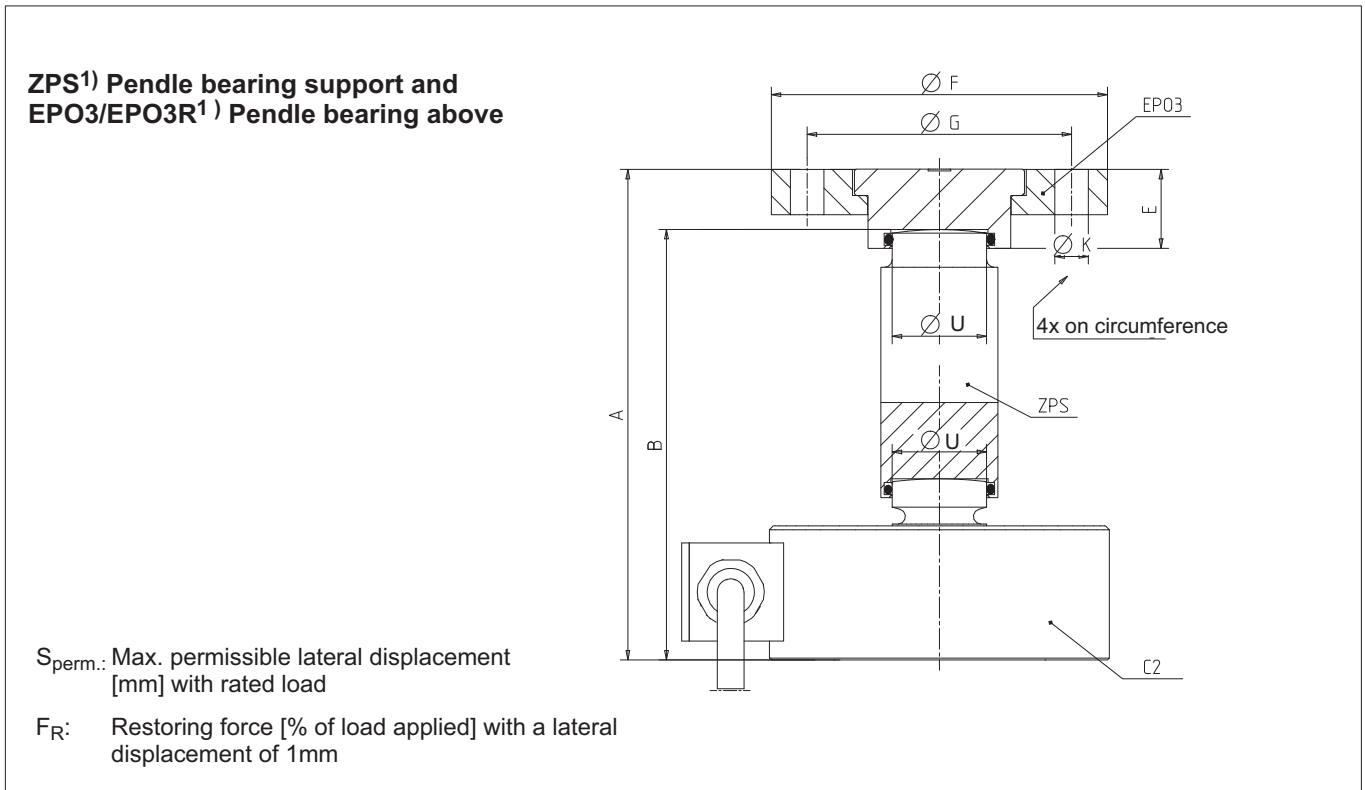
Mechanical values

| Max. capacity [t] | Deflection at max. capacity (s_{nom}) [mm], approx. | Weight (G), approx. [kg] | Cable length [m] |
|--------------------|---|--------------------------|------------------|
| 0.05 | < 0.1 | 0.4 | 3 |
| 0.1 | < 0.1 | 0.4 | 3 |
| 0.2 | < 0.1 | 0.4 | 3 |
| 0.5 | < 0.1 | 0.4 | 3 |
| 1 | < 0.1 | 0.4 | 3 |
| 2 | < 0.06 | 1.8 | 6 |
| 5 | < 0.06 | 1.8 | 6 |
| 10 | < 0.06 | 3 | 12 |
| 20 | < 0.06 | 3 | 12 |
| 50 | < 0.1 | 8.6 | 12 |

Wiring code



Mounting accessories

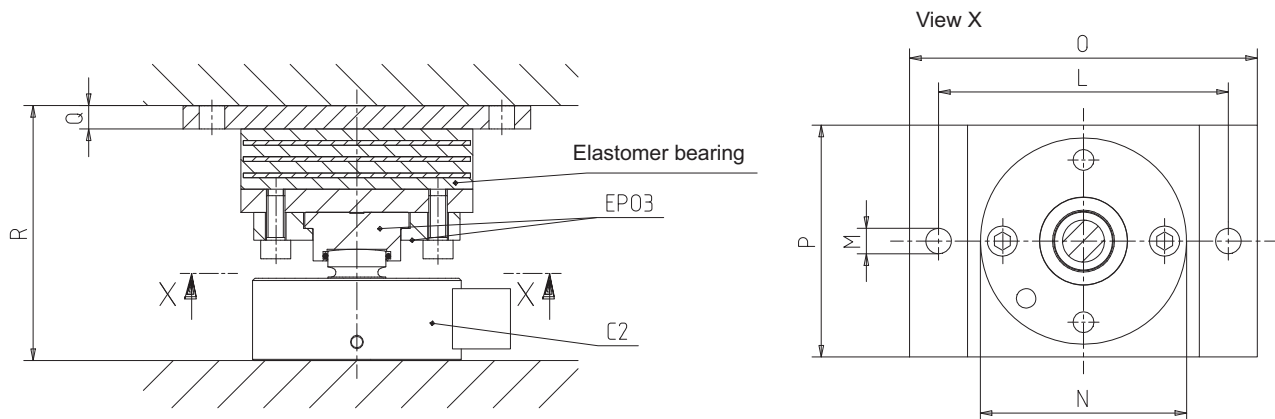


| Max. capac. | Pendle bearing support ¹⁾ | Pendle bearing above ¹⁾ | A | B | E | ØF | ØG | ØU | ØK | $S_{perm.}$ | F_R |
|-------------|--------------------------------------|------------------------------------|-----|-------|------|-----|-----|----|----|-------------|-------|
| 50 kg...1 t | 1-ZPS 13/44 | 1-EPO3/200 kg | 90 | 74 | 21 | 89 | 70 | 13 | 9 | ±3 | 2.4 |
| 2 and 5 t | 1-ZPS 25/66 | 1-EPO3R/5 t | 130 | 114 | 21 | 89 | 70 | 25 | 9 | ±5 | 2.6 |
| 10 and 20 t | 1-ZPS 32/115 | 1-EPO3R/20 t | 195 | 175 | 27.5 | 110 | 90 | 32 | 13 | ±9 | 1.2 |
| 50 t | 1-ZPS 44/150 | 1-EPO3/50 t | 280 | 239.5 | 50 | 147 | 120 | 44 | 17 | ±10 | 1.5 |

¹⁾ ZPS Pendle bearing support, EPO3R and EPO3/200 kg Pendle bearings above are made from stainless steel.

Mounting accessories (continued)

ZELA/ZELB Elastomer bearing and EPO3/EPO3R¹⁾ pendle bearing



$S_{perm.}$: Max. permissible lateral displacement [mm] with rated load

F_R : Restoring force [N] with a lateral displacement of 1mm

| Max. capac. [t] | Elastomer bearing ¹⁾ | Pendle bearing ¹⁾ | L | M | N | O | P | Q | R | $S_{perm.}$ | F_R |
|-----------------|---------------------------------|------------------------------|-----|----|-----|-----|-----|----|------|-------------|-------|
| 0.5 and 1 | 1-ZELB/2 t | 1-EPO3/200 kg | 100 | 9 | 89 | 120 | 60 | 10 | 85.5 | ±4.5 | 400 |
| 2 | 1-ZELB/2 t | 1-EPO3R/5 t | 100 | 9 | 89 | 120 | 60 | 10 | 103 | ±4.5 | 400 |
| 5 | 1-ZELB/5 t | 1-EPO3R/5 t | 125 | 11 | 89 | 150 | 100 | 10 | 110 | ±8 | 620 |
| 10 | 1-ZELB/10 t | 1-EPO3R/20 t | 175 | 13 | 110 | 200 | 100 | 12 | 135 | ±9.5 | 810 |
| 20 | 1-ZELA/20 t | 1-EPO3R/20 t | 230 | 13 | 110 | 260 | 150 | 12 | 142 | ±15 | 1400 |
| 50 | 1-ZELA/50 t | 1-EPO3/50 t | 335 | 17 | 148 | 370 | 200 | 15 | 200 | ±10.5 | 2300 |

¹⁾ ZELB Elastomer bearing, EPO3R/... and EPO3/200 kg Pendle bearings are made from stainless steel.

Options:

Explosion-proof versions according to ATEX 95:

- II 2 G EEx ia IIC T4 resp. T6 (Zone 1) *)
- II 2 D IP67 T80°C (Zone 21) *)
- II 3 G EEx nA II T6 (Zone 2)
- II 3 D IP67 T80°C (Zone 22 for non-conductive dust)

*) with EC-type examination certificate

Operating temperature range extended to 120 °C [248 °F] (not possible in connection with ATEX 95)

Accessories, to be ordered separately:

- ZPS Pendle bearing support and EPO3/EPO3R Pendle bearing
- ZELA/ZELB Elastomer bearing and EPO3/EPO3R Pendle bearing
- EEK Grounding cable

Regional Distributor



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