



PENKO Engineering BV

The Leading Experts In Weighing & Dosing

0.2kN-2kN
20kg-200kg **SB6**



Product Description

The type SB6 is a stainless steel beam type load cell with complete hermetic sealing. It is a perfect fit for use in industrial environments.

Application

- Platform scales, bench scales and many other low capacity beam applications

Key Features

- Wide range of capacities from 20 kg to 2 kN (204 kg)
- Stainless steel construction
- Environmental Protection IP68 with complete hermetic sealing
- High input resistance
- Calibration in mV/V/Ω

Options

- Y = 20 400 for C3, C3 MI6 and C4
- Stainless steel cable gland

Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24). Cable jacket polyurethane
- Cable length: 3 m
- Cable diameter: 5 mm
- The shield is floating
(On request the shield can be connected to the load cell body)

Approvals

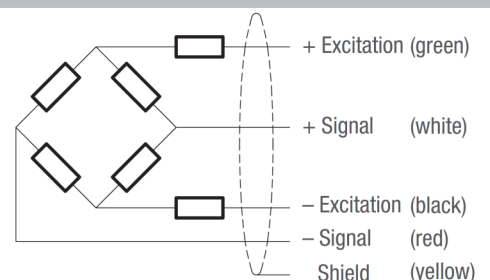
- OIML approval to C1 (Y = 5 100), C3, C3 MI6 and C4 (Y = 10 200)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

Packed Weight

- 1.0 kg

Available Accessories

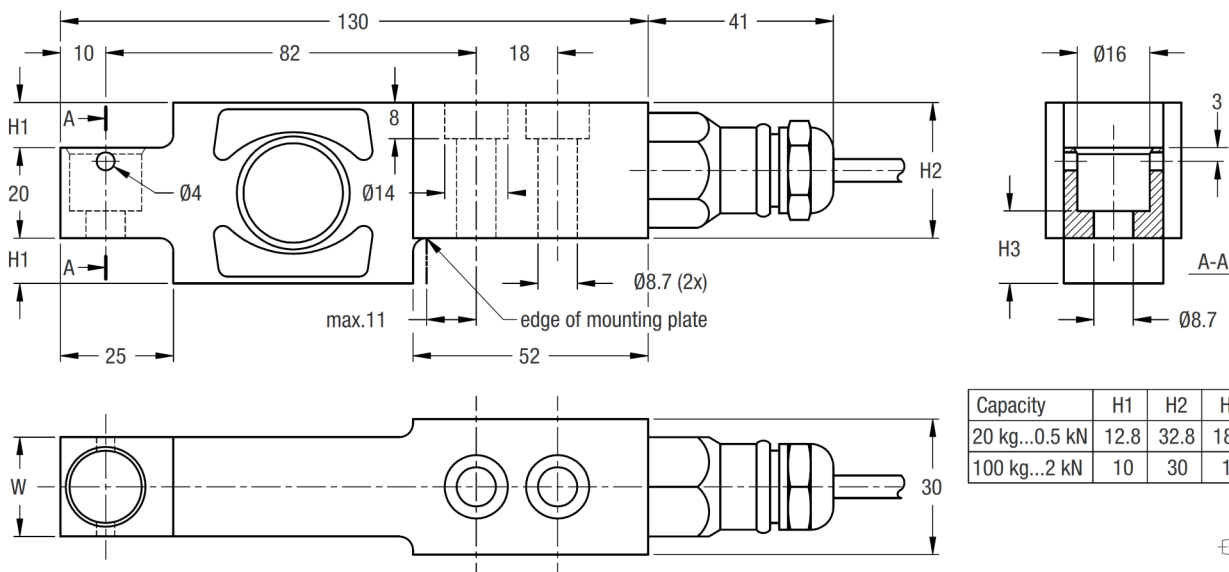
- Compatible range of application hardware
- Compatible range of electronics



| Specifications | | | 0.2 / 0.5 / 1 / 2 | | | 0.5 / 1 / 2 | 0.2 / 0.5 / 1 |
|--|---------------------------------------|-------------------------|--|--------------------------|---------------------------|---------------------------------|---------------------------------|
| Maximum capacity | (E _{max}) | kN | 0.2 / 0.5 / 1 / 2 | | | 0.5 / 1 / 2 | 0.2 / 0.5 / 1 |
| | | kg | 20 / 50 / 100 / 200 | | | 50 / 100 / 200 | 20 / 50 / 100 |
| Metric equivalents (1 N=0.10197 kg) | | kg | 20 / 20.4 / 50 / 51 / 100 / 102 / 200 / 204 | | | 50 / 51 / 100 / 102 / 200 / 204 | 20 / 20.4 / 50 / 51 / 100 / 102 |
| Accuracy class according to OIML R60 | | | (GP) | C1 | C3 | C3 M16 | C4 |
| Maximum number of verification intervals | (n _{max}) | | n.a. | 1 000 | 3 000 | 3 000 | 4 000 |
| Minimum load cell verification interval | (v _{min}) | | n.a. | E _{max} / 5 100 | E _{max} / 10 200 | | |
| Temperature effect on minimum dead load output | (TC ₀) | %*RO/10°C | ± 0.0400 | ± 0.0275 | ± 0.0137 | | |
| Temperature effect on sensitivity | (TC _{RO}) | %*RO/10°C | ± 0.0200 | ± 0.0160 | ± 0.0100 | | ± 0.0080 |
| Combined error | | %*RO | ± 0.0500 | ± 0.0300 | ± 0.0200 | ± 0.0180 | |
| Non-linearity | | %*RO | ± 0.0400 | ± 0.0300 | ± 0.0166 | | ± 0.0125 |
| Hysteresis | | %*RO | ± 0.0400 | ± 0.0300 | ± 0.0166 | ± 0.0083 | ± 0.0125 |
| Creep error (30 minutes) / DR | | %*RO | ± 0.0600 | ± 0.0490 | ± 0.0166 | ± 0.0083 | ± 0.0125 |
| Option | Min. load cell verification interval | (v _{min opt}) | n.a. | n.a. | E _{max} / 20 400 | | |
| | Temp. effect on min. dead load output | (TC _{0 opt}) | %*RO/10°C | n.a. | n.a. | ± 0.0069 | |
| Rated Output | (RO) | mV/V | 2 ± 0.1% | | | | |
| Calibration in mV/V/Ω (A...I classified) | | % | ± 0.05 (± 0.005) | | | | |
| Zero balance | | %*RO | ± 5 | | | | |
| Excitation voltage | | V | 5...15 | | | | |
| Input resistance | (R _{LC}) | Ω | 1 100 ± 50 | | | | |
| Output resistance | (R _{out}) | Ω | 1 000 ± 2 | | | | |
| Insulation resistance (100 V DC) | | MΩ | ≥ 5 000 | | | | |
| Safe load limit | (E _{lim}) | %*E _{max} | 200 | | | | |
| Ultimate load | | %*E _{max} | 300 | | | | |
| Safe side load | | %*E _{max} | 100 | | | | |
| Compensated temperature range | | °C | -10...+40 | | | | |
| Operating temperature range | | °C | -40...+80 (ATEX -40...+60) | | | | |
| Load cell material | | | stainless steel 17-4 PH (1.4548) | | | | |
| Sealing | | | complete hermetic sealing; cable entry sealed by glass to metal header | | | | |
| Protection according EN 60 529 | | | IP68 (up to 2 m water depth) / IP69K | | | | |

The limits for Non-Linearity, Hysteresis, and TC_{RO} are typical values.
The sum of Non-Linearity, Hysteresis and TC_{RO} meets the requirements according to OIML R60 with p_{LC}=0.7.

Dimensions (in mm)



Mounting bolts M8 8.8; torque: 25 Nm. Torque value assumes oiled threads.