
Q50 compression load cell



product description

The Q50 compression load cell offer high capacity weighing in a low profile and compact sensor. Designed for applications in the food and chemicals industry, the Q50 offers easy of clean features such as smooth electro-polished surfaces and no wells that can hold contamination. The Q50 is ideally suited to weighing applications in clean-in-place/sterilize-in-place environments. Completely hermetically sealed by laser welding.

applications

Vessel and silo weighing systems, high capacity platform scales, general test and measurement tasks.

key features

Wide range of capacities from 500kg through to 30T

All stainless-steel construction

Hermetically sealed to IP68

Low profile

Hygienic design with electro-polished finish for food industry applications

Calibration in mV/V/Ω

approvals

ATEX hazardous area approval for zones 0, 1, 2, 20, 21 and 22

FM hazardous area approval

accessories

Type 66-20 Weigh Module

Compatible range of electronics



RoHS
compliant



specifications

| | | |
|---|--------------|---|
| Maximum capacity (E_{max}) | t | 0.5 / 1 / 2 / 5 / 10 / 20 / 30 |
| Rated Output (RO) | mV/V | 2 ± 0.1 |
| Zero balance | %*RO | ± 5 |
| Calibration in mV/V/ Ω | % | ± 0.05 |
| Creep error (30 minutes) (CR) | %*RO | ± 0.06 |
| Minimum dead load output return (DR) | %*RO | ± 0.05 |
| Combined error | %*RO | ± 0.25 |
| Temperature effect on minimum dead load output (TC_0) | %*RO/10°C | ± 0.04 |
| Temperature effect on sensitivity (TC_{RO}) | %*RO/10°C | ± 0.02 |
| Excitation voltage | V | 5...15 |
| Input resistance (R_{LC}) | Ω | 366 ± 10 |
| Output resistance (R_{out}) | Ω | 351 ± 2 |
| Insulation resistance (100 V DC) | M Ω | $\geq 5,000$ |
| Safe load limit (E_{lim}) | %* E_{max} | 200 |
| Ultimate load | %* E_{max} | 300 |
| Compensated temperature range | °C | -10...+40 (ATEX-40...+60) |
| Operating temperature range | °C | -20...+65 |
| Load cell material | - | stainless steel 17-4 PH (1.4548) |
| Protection according EN 60 529 | - | IP68 (up to 2 m water depth) / IP69K |
| Packet weight | kg | 1.0 (0.5t, 1t, 2t, 5t), 1.5 (10t), 3.2 (20t, 30t) |

wiring

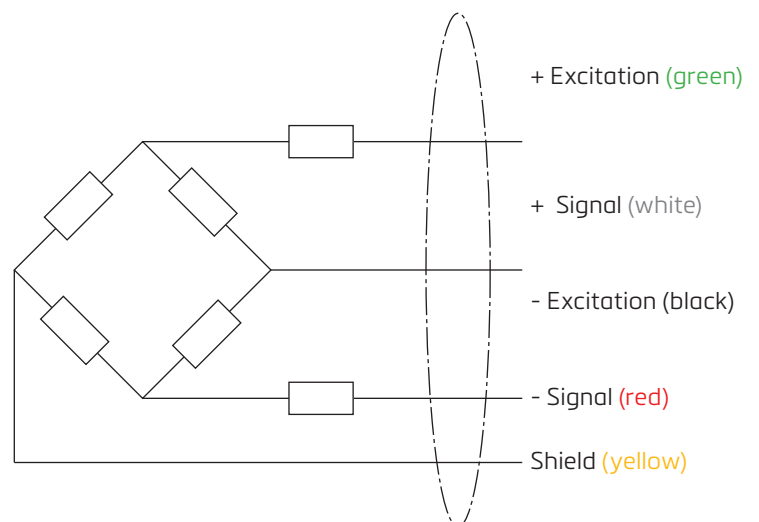
The load cell is provided with a shielded, 4 conductor cable (AWG 24).

Cable jacket polyurethane

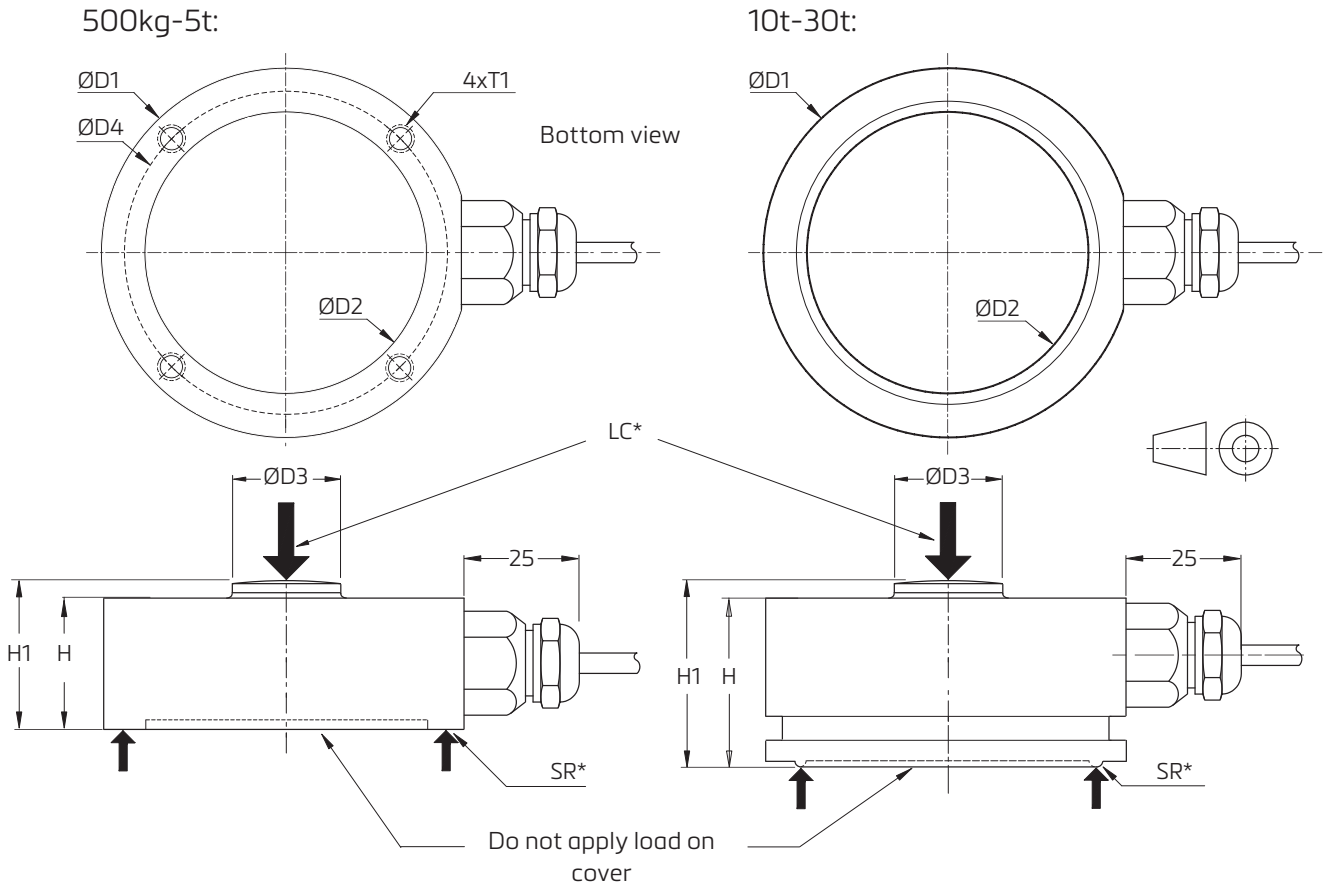
Cable length: 5m for 500kg to 10t; 10m for 20 to 30t

Cable diameter: 5mm

The shield is floating



product dimensions (mm)



SR* - Support ring
LC* - Load centre

| Type | H1 | H | D1 | D2 | D3 | D4 | T1 |
|----------------|------|-------|-----|------|------|----|----------------|
| 500 kg ... 5 t | 32.5 | 29.7 | 80 | 62 | 16 | 70 | M6 x 1, 8 deep |
| 10 t | 42 | 35.45 | 95 | 75 | 29 | - | - |
| 20 t ... 30 t | 54 | 46.32 | 120 | 87.5 | 42.5 | - | - |

Specifications and dimensions are subject to change without notice.