

Single-Point Stainless Steel Load Cell

FEATURES

- Capacity range: 10–150 kg
- Stainless steel construction
- Single-point 400 × 400 mm platform
- Sealed to IP66
- Compact size: only 40 mm high
- OIML approved to C3 (20–100 kg) and NTEP Class III/5000
- Choice of mounting threads: 1/4-20 UNC or M6 × 12
- **Optional**
 - ATEX, FM and IECEx approvals available
 - Grounded version includes shield wire in load cell cable



APPLICATIONS

- Platform scales
- Bench scales
- Counting scales
- Grocery scales

DESCRIPTION

Model 1142 is a stainless steel single-point load cell suitable for direct mounting with platform, bench, counting, and a wide range of other scale applications. Small physical size, combined with high accuracy and low cost, makes 1142 load cells the perfect choice for new or retrofit scale construction.

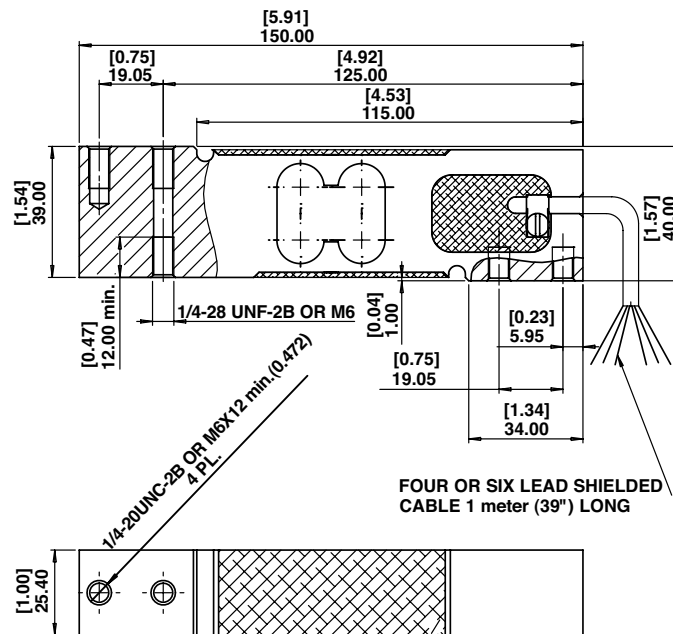
A humidity-resistant protective coating assures stable operation in damp environments over the entire compensated range and conforms to IP66 (IEC 60529).

Also available with ATEX approved version for hazardous areas.

The six-wire cable includes two sense wires that compensate for changes in lead resistance due to temperature changes and cable extension.

Model 1142 options offer a choice of bolt threads, 1/4-20 UNC or M6 × 12, and a grounded version that includes a “shield” wire in the load cell cable.

OUTLINE DIMENSIONS in millimeters [inches]



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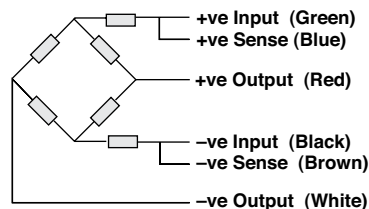
| SPECIFICATIONS | | | | |
|-----------------------------------|---|--------|-------------|-----------------------|
| PARAMETER | VALUE | | | UNIT |
| Rated capacity—R.C. (E_{max}) | 10, 15, 20, 30, 50, 75, 100, 150**, 200** | | | kg |
| OIML accuracy class | Non-Approved | C3* | | |
| NTEP accuracy class | | | III/5000 | |
| Maximum no. of intervals (n) | 1000 | 3000 | 5000 single | |
| $Y = E_{max}/V_{min}$ | 4000 | 15000 | 10000 | Maximum available |
| Rated output—R.O. | 2.0 | | | mV/V |
| Rated output tolerance | 0.2 | | | ±mV/V |
| Zero balance | 0.2 | | | ±mV/V |
| Zero return, 30 min. | 0.0500 | 0.0167 | 0.0100 | ±% of applied load |
| Total error | 0.0300 | 0.0200 | 0.0200 | ±% of rated output |
| Temperature effect on zero | 0.0070 | 0.0023 | 0.0014 | ±% of rated output/°C |
| Temperature effect on output | 0.0030 | 0.0010 | 0.0010 | ±% of applied load/°C |
| Eccentric loading error | 0.0074 | 0.0049 | 0.0042 | ±% of rated load/cm |
| Temperature range, compensated | -10 to +40 | | | °C |
| Temperature range, safe | -30 to +70 | | | °C |
| Maximum safe central overload | 150 | | | % of R.C. |
| Ultimate central overload | 300 | | | % of R.C. |
| Excitation, recommended | 10 | | | VDC or VAC RMS |
| Excitation, maximum | 15 | | | VDC or VAC RMS |
| Input impedance | 415±15 | | | Ω |
| Output impedance | 350±3 | | | Ω |
| Insulation resistance | >2000 | | | MΩ |
| Cable length | 1 | | | m |
| Cable type | 6-wire, PVC, single floating screen | | | Standard |
| Construction | Stainless steel | | | |
| Environmental protection | IP66 | | | |
| Platform size (max.) | 400 x 400 | | | mm |
| Recommended torque | Up to 30 kg: 7.0 50 kg and up: 10.0 | | | N*m |

* 50% utilization

** 10, 15, 150, and 200 kg are not OIML approved

All specifications are subject to change without notice.

Wiring Schematic Diagram
(Balanced bridge temperature compensation)





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