

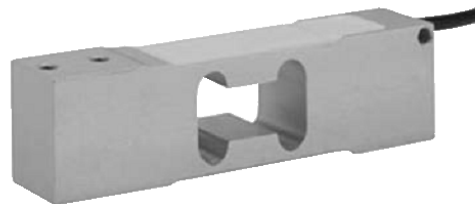
1042

## SINGLE POINT LOAD CELL

### Low Profile Aluminum Load Cell

#### FEATURES

- Capacities 1–200 kg
- Aluminum construction
- Single-point 400 x 400 mm platform
- OIML R60 and NTEP approved
- IP66 protection
- Available with metric and UNC threads
- **Optional**
  - EEx ia IIC T4 hazardous area approval
  - FM approval available
  - High stiffness version available for dynamic weighing applications



#### APPLICATIONS

- Bench scales
- Counting scales
- Grocery scales

#### DESCRIPTION

Model 1042 is a low profile single-point load cell designed for direct mounting in weighing platforms.

Its small physical size, combined with high accuracy and low cost, makes this load cell ideally suited for retail, bench and counting scales.

Capacities of 5 kg and above are supplied as standard in anodized aluminum. This high accuracy load cell is approved to NTEP and other stringent approval standards, including OIML R60.

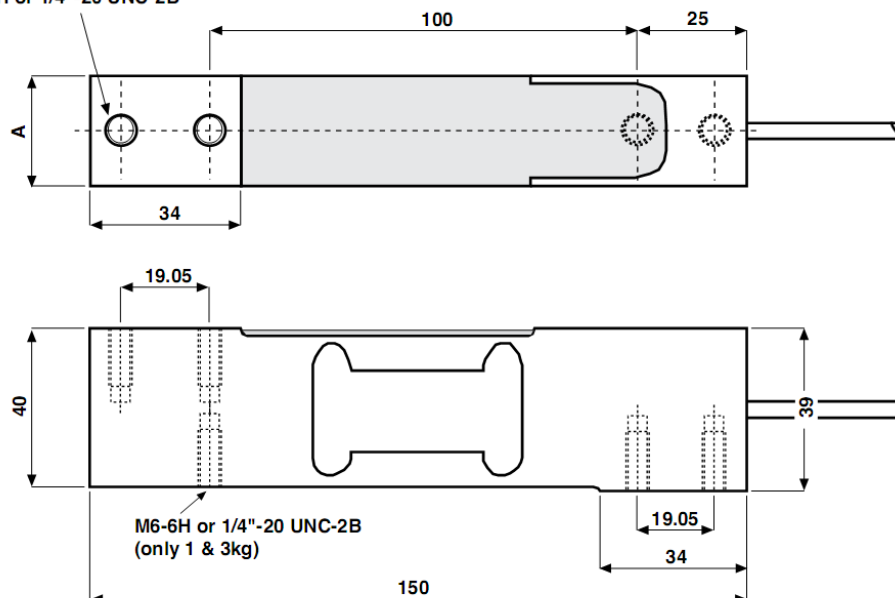
A humidity resistant protective coating assures long-term stability over the entire compensated temperature range.

The two additional sense wires feed back the voltage reaching the load cell. Complete compensation of changes in lead resistance due to temperature change and/or cable extension, is achieved by feeding this voltage into the appropriate electronics.

#### OUTLINE DIMENSIONS in millimeters

| Capacity, kg | A    |
|--------------|------|
| 1–30         | 20   |
| 50–200       | 25.4 |

4 Mounting holes  
M6-6H or 1/4"-20 UNC-2B





## Low Profile Aluminum Load Cell

| SPECIFICATIONS                    |                                                      |              |        |           |                         |
|-----------------------------------|------------------------------------------------------|--------------|--------|-----------|-------------------------|
| PARAMETER                         | VALUE                                                |              |        |           | UNIT                    |
| Rated capacity—R.C. ( $E_{max}$ ) | 1, 3, 5, 7, 10, 15, 20, 30, 50, 75, 100, 150, 200*** |              |        |           | kg                      |
| NTEP/OIML accuracy class          | NTEP                                                 | Non-Approved | C3*    | C6**      |                         |
| Maximum no. of intervals (n)      | 5000 single                                          | 1000         | 3000   | 6000***** |                         |
| $Y = E_{max}/V_{min}$             | 10000                                                | 1400         | 6000   | 10000     | Maximum available 20000 |
| 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.              | 0.0330                                               | 0.0300       | 0.0170 | 0.0083    | ±% of applied load      |
| Total error (per OIML R60)        | 0.0200                                               | 0.0500       | 0.0200 | 0.0100    | ±% of rated output      |
| Temperature effect on zero        | 0.0023                                               | 0.0100       | 0.0023 | 0.0014    | ±% of rated output/°C   |
| Temperature effect on output      | 0.0010                                               | 0.0030       | 0.0010 | 0.00058   | ±% of applied load/°C   |
| Eccentric loading error           | 0.0049                                               | 0.0074       | 0.0049 | 0.0024    | ±% of rated load/cm     |
| Temp. range, compensated          | -10 to +40                                           |              |        |           | °C                      |
| Temp. range, safe                 | -20 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±20                                               |              |        |           | Ω                       |
| Output impedance                  | 350±3                                                |              |        |           | Ω                       |
| Insulation resistance             | >2000                                                |              |        |           | MΩ                      |
| Cable length                      | 1****                                                |              |        |           | m                       |
| Cable type                        | 6 wire, PVC, single floating screen                  |              |        |           | Standard                |
| Construction                      | Plated (anodize) aluminum                            |              |        |           |                         |
| Environmental protection          | IP65                                                 |              |        |           |                         |
| Platform size (max)               | 400 x 400                                            |              |        |           | mm                      |
| Recommended torque                | Up to 30 kg: 7.0<br>35 kg and above: 10.0            |              |        |           | N*m                     |

\* 50% utilization

\*\* 60% utilization

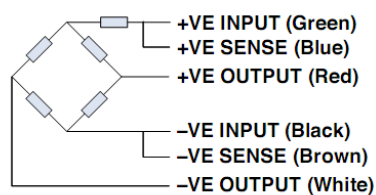
\*\*\* 1 kg is not approved by OIML, 150 and 200 kg are not approved by NTEP

\*\*\*\* 20–200 kg are of balanced bridge configuration, and have side cable entry

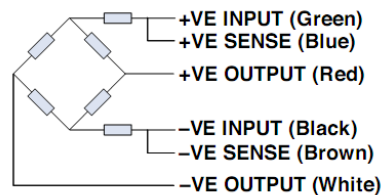
\*\*\*\*\* 6000 divisions from 20 kg to 100 kg

All specifications subject to change without notice.

**WIRING SCHEMATIC DIAGRAM**  
(Unbalanced bridge configuration)



**WIRING SCHEMATIC DIAGRAM**  
(Balanced bridge configuration)





**Sensel Measurement**