

# LIDEN

### Vishay Tedea-Huntleigh

### Low Profile Aluminum Load Cell



#### **FEATURES**

- Capacities 1- 150kg
- Aluminum construction
- Single point 400 x 400mm platform
- OIML R60 and NTEP approved
- · IP66 protection
- · Available with metric and UNC threads

#### **OPTIONAL FEATURES**

- EEx ia IIC T4 hazardous area approval
- FM approval available

#### **DESCRIPTION**

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

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

Capacities of 5kg 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.

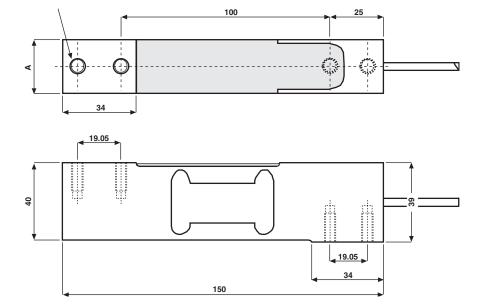
The two additional sense wires feed back the voltage reaching the load cell. Complete compensation of changes in lead resistance due to temperature change and/or cable extenstion, is achieved by feeding this voltage into the appropriate electronics.

#### **APPLICATIONS**

- · Bench scales
- · Counting scales
- · Grocery scales

#### **OUTLINE DIMENSIONS** in millimeters

| Capacity, kg | Α    |
|--------------|------|
| 1 - 30       | 20   |
| 50 - 100     | 25.2 |



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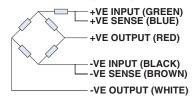


#### **SPECIFICATIONS**

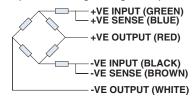
| PARAMETER                               | VALUE   |              |        |                | UNITS                  |
|---|---|--------------|--------|----------------|------------------------|
| NTEP/OIML Accuracy class                | NTEP  | Non Approved | C3*    | C6**           |                        |
| Maximum no. of intervals (n)            | 5000 single                                     | 1000         | 3000   | 6000****       |                        |
| Rated capacity-R.C. (E <sub>max</sub> ) | 1, 3, 5, 7, 10, 15, 20, 30, 50, 75, 100, 150*** |              |        | kg             |                        |
| 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 | 0.0024         | ± % of rated output/°C |
| Y = E <sub>max</sub> /V <sub>min</sub>  | 10000   | 3333         | 15000  | 15000          |                        |
| Temperature effect on output            | 0.001   | 0.0300       | 0.0010 | 0.00058        | ± % of applied load/°C |
| Eccentric loading error                 | 0.0057  | 0.0085       | 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                         | 385 ± 15  |              |        |                | Ohms                   |
| Output impedance                        | 350 ± 3   |              |        |                | Ohms                   |
| Insulation resistance                   | > 2000  |              |        |                | Mega-Ohms              |
| Cable length                            | 1****   |              |        |                | m                      |
| Cable type                              | 6wire, PVC, single floating screen              |              |        | Standard       |                        |
| Construction                            | Plated (Anodize) aluminum                       |              |        |                |                        |
| Environmental protection                | IP66  |              |        |                |                        |
| Platform size (max)                     | 400 x 400                                       |              |        |                | mm                     |
| Recommended torque                      | Up to 30 kg: 7.0 35 kg & up: 10.0               |              |        |                | N*m                    |

- 50% utilization
- 60% utilization
- 1 kg is not approved by OIML, 150 is not approved by NTEP 20 kg and up are 2 sided and the cable goes out of the side 6000 divisions from 20 kg and up

# WIRING SCHEMATIC DIAGRAM (unbalanced bridge configuration)



#### WIRING SCHEMATIC DIAGRAM (balanced bridge configuration)



#### **VISHAY TRANSDUCERS (VT) - SALES OFFICES**



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