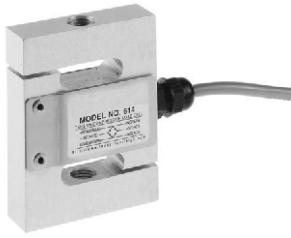


## Tension Compression Load Cell



### FEATURES

- Capacities 50 - 500kg
- Anodized aluminum construction
- OIML R60 approved
- IP67 protection
- For use in tension or compression
- 6 wire (sense) circuit

### OPTIONAL FEATURE

- EEx ia IIC T4 hazardous area approval

### DESCRIPTION

Model 614 is a tension-compression load cell. Humidity resistant coating and shielded cables enable this load cell to be used in harsh environments while maintaining its operating specifications.

The additional sense wires compensate for changes in lead resistance due to temperature change and/or cable extension.

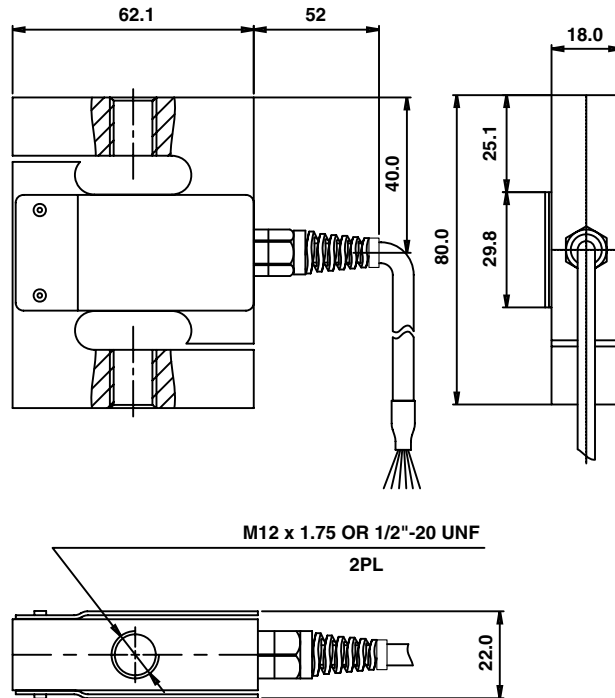
Ideally suited for lever conversions, hanging scales, force measurement and a wide range of other industrial applications.

Model 614 is made from aluminum.

### APPLICATIONS

- Hopper (Tank weighing)
- Hybrid scales
- Belt weighing
- Lever arm conversions
- Material testing machines
- Vibrations filling equipment
- Dynamometers

### OUTLINE DIMENSIONS in millimeters



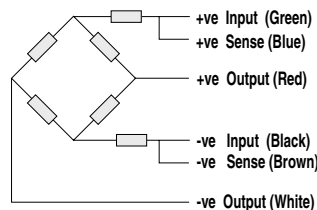
All dimensions in mm

**SPECIFICATIONS**

| PARAMETER                         | VALUE                                     |        | UNIT                  |
|-----------------------------------|---|--------|-----------------------|
| Rated capacity-R.C. ( $E_{max}$ ) | 50, 100, 150, 200, 300, 500               |        | kg                    |
| Accuracy class                    | Non-Approved                              | C3*    |                       |
| Maximum no. of intervals (n)      | 1000                                      | 3000   |                       |
| $Y = E_{max}/V_{min}$             | 2500                                      | 8000   | 12000**               |
| Rated output-R.O.                 | 2.0                                       |        | mV/V                  |
| Rated output tolerance            | 0.2                                       |        | ±mV/V                 |
| Zero balance                      | 0.02                                      |        | ±mV/V                 |
| Zero Return, 30 min.              | 0.05                                      | 0.017  | ±% of applied load    |
| Total Error (per OIML R60)        | 0.05                                      | 0.020  | ±% of rated output    |
| Temperature effect on zero        | 0.01                                      | 0.0023 | ±% of rated output/°C |
| Temperature effect on output      | 0.003                                     | 0.0012 | ±% of load/°C         |
| 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                                    |        | Ohms                  |
| Output impedance                  | 350±3                                     |        | Ohms                  |
| Insulation resistance             | >2000                                     |        | Mega-Ohms             |
| Cable length                      | 3.0                                       |        | m                     |
| Cable type                        | 6 wire, braided PVC, dual floating screen |        | Standard              |
| Construction                      | Plated (Anodize) aluminum                 |        |                       |
| Environmental protection          | IP67                                      |        |                       |

\* 50% utilization

\*\* Y=8000 for capacities 50-200kg. Y=12000 for capacities 300-500kg

**Wiring Schematic Diagram  
(Balanced bridge configuration)****VISHAY TRANSDUCERS (VT) SALES OFFICES**

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