

# TEDEA - HUNTLEIGH Model 600 Series

## 'S' Type Load Cells



- Capacities: 50 - 100 kg (110.23 - 220.46 lbs)
- Stainless steel (616) or aluminum (601)
- Tension or compression applications
- Suitable for hanging scales
- Ideal for conversion of mechanical to electronic scales
- Meets Handbook 44, OIML R60 and other international standards

Model 601 and 616 tension compression load cells are available in aluminum alloy (601) or stainless steel (616).

Model 616 features stainless steel construction, IP67 environmental protection, 6 wire (sense) circuit, and a unique humidity-resistant protective coating. It is ideal for harsh environmental, high accuracy applications.

Ideally suited for lever conversions, hopper/tanks and vibratory feeders general process weighing and force measurement applications.

Model 616 features aluminum alloy construction, IP 65 environmental protection and 4 wire circuit. It is ideal for lower cost, high accuracy applications.

Tedea-Huntleigh, with models ranging from 2 to 50,000 is the world's largest manufacturer of precision load cells.

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**TEDEA**   
**HUNTLEIGH**  
EXCELLENCE IN LOAD CELLS

# 601 / 616 SPECIFICATIONS

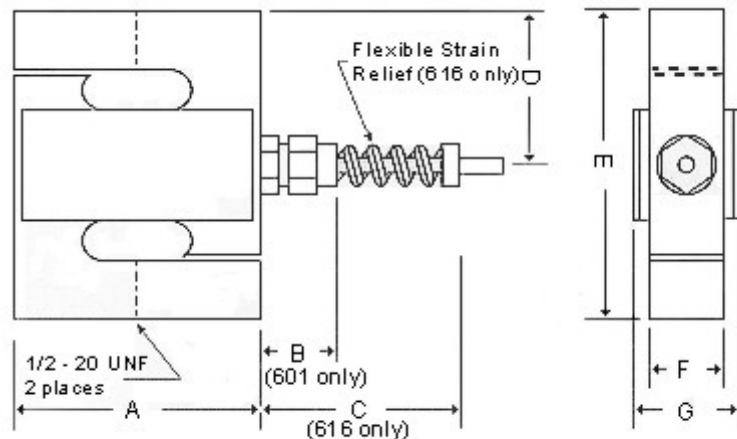
| GRADE                                                  | E                                                               | F      | G*     | UNITS                   |
|--------------------------------------------------------|-----------------------------------------------------------------|--------|--------|-------------------------|
| Accuracy Class                                         | 50, 100, 250, 500                                               |        |        | kg                      |
| Rated Capacity                                         | 100, 150, 200, 300, 500, 750, 1000                              |        |        | kg                      |
| Rated Output**                                         | 2 ± 0.10%                                                       |        |        | mV/V                    |
| Total Error***                                         | 1500                                                            | 2000   | 3000   | Divisions               |
| Total Error                                            | 0.050                                                           | 0.030  | 0.020  | ±% of Load              |
| Creep at Rated Capacity / Zero Return After 30 Minutes | 0.050                                                           | 0.030  | 0.016  | ±% of Load              |
| Zero Balance                                           | 10                                                              |        |        | ±% of Rated Output      |
| Temperature Range : Operating                          | -30 to +70                                                      |        |        | °C                      |
| : Compensated                                          | -10 to +45                                                      |        |        | °C                      |
| Temperature Effect : On Output                         | 0.0040                                                          | 0.0015 | 0.0012 | ±% of Load / °C         |
| : On Zero                                              | 0.0080                                                          | 0.0030 | 0.0027 | ±% of Rated Output / °C |
| Maximum Overload at the Center Loading Point           | 150                                                             |        |        | % of Rated Capacity     |
| Ultimate Overload at the Center Loading Point          | 300                                                             |        |        | % of Rated Capacity     |
| Excitation : Recommended                               | 10                                                              |        |        | Volts AC or DC          |
| : Maximum                                              | 15                                                              |        |        | Volts AC or DC          |
| Input Impedance : 601 / 616                            | 415 ± 15 / 385 ± 15                                             |        |        | Ohms                    |
| Output Impedance                                       | 350 ± 3                                                         |        |        | Ohms                    |
| Insulation Resistance : 601 / 616                      | >1000 / >5000                                                   |        |        | Mega Ohms               |
| Deflection at Rated Capacity                           | <0.4                                                            |        |        | mm                      |
| Weight : 601 / 616                                     | 0.41 / 0.58                                                     |        |        | kg                      |
| Construction : 601 / 616                               | Aluminum / Stainless Steel                                      |        |        |                         |
| Cable : 601                                            | 3 Meter, 4 Conductor, PVC Jacket, Floating Shield               |        |        |                         |
| : 616                                                  | 3 Meter, 6 Conductor, Polyurethane Jacket, Dual Floating Shield |        |        |                         |
| Environmental Protection                               | IP 65 / IP 67                                                   |        |        |                         |
| Approvals                                              | OIML R60                                                        |        |        |                         |

\* G Class available on Model 616 > 300 kg only

\*\* All accuracy specifications maintained when 150% of nominal load is applied for 3 mV/V output

\*\*\* Nonlinearity, hysteresis, repeatability, and output temperature effect according to OIML R60 and NIST H-44

## Wiring Diagram and Dimensions



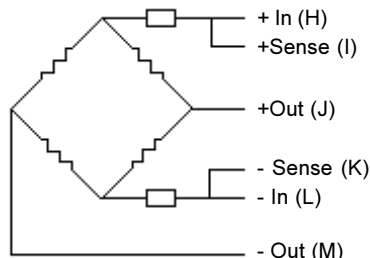
## Dimensions

| Model | 601  | 616  |
|-------|------|------|
| A     | 2.75 | 2.50 |
| B     | 0.80 | --   |
| C     | --   | 2.04 |
| D     | 1.50 | 1.57 |
| E     | 3.00 | 3.15 |
| F     | 1.00 | 0.75 |
| G     | 1.35 | 1.08 |

## Wiring Diagram

| Model | 601    | 616   |
|-------|--------|-------|
| H     | Red    | Green |
| I     | --     | Blue  |
| J     | Green  | Red   |
| K     | --     | Brown |
| L     | Blue   | Black |
| M     | Yellow | White |

## Balanced Temperature Compensation



The two "sense" wires (616 only) sample the bridge supply voltage at the load cell. Complete compensation of change in the lead wire resistance, due to temperature change and/or cable extension, is achieved by feeding this voltage into appropriate electronics.



Due to Tedea-Huntleigh's policy of continuous development, these specifications are subject to change without notice.

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DSU 600, 1.95

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