

# Model 3510

## Shear Beam Load Cells



### Features

- Capacities: 500 - 5000 kg (1102-11022 lbs)
- Stainless steel construction
- Combined error only 0.02%
- Hermetically sealed to IP68
- 6 Wire (sense) circuit
- Interchangeable with Model 3410 and other
- Industry standard configuration load cells
- Fully welded protection
- Hostile environment capability

Model 3510 is a hermetically sealed, stainless steel shear beam. Designed for the ultimate protection necessary for today's hostile environments, it is ideally suited for low profile platforms, pallet truck weighers, tanks and silos.

This high accuracy load cell is hermetically sealed to IP 68 and is OIML Class C3 Approved. When operated at constant temperature, all load cells offer 0.02% combined error performance regardless of accuracy class.

Hermetically sealed, stainless steel construction assures long-term stability even under harsh environment and extreme temperatures. The slotted profile enables manufacturers to easily position the load cell without resorting to the use of mounting plates.

For tank or hopper mounting applications, Tedea-Huntleigh offers the Model 9100 Series Cell-Mates. Cell-Mates simplify mounting while increasing system accuracy.



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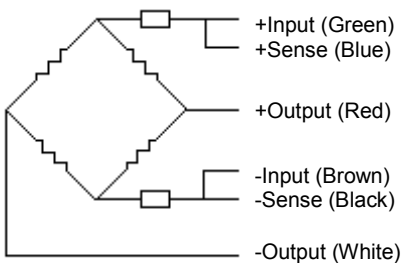
# Model 3510

# Shear Beam Load Cells

| GRADE  | E   | G/C3   | UNITS                   |
|--|---|--------|-------------------------|
| Rated Capacity   | 500, 1000, 2000, 5000   |        | kg                      |
| Rated Output*  | 2.0 ± 0.25%   |        | mV/V                    |
| Total Error  | 0.05  | 0.02   | ±% of Rated Output      |
| Creep at Rated Capacity / Zero Return After 30 Minutes | 0.05  | 0.017  | ±% of Applied Load      |
| Zero Balance   | 3   | 2      | ±% of Rated Output      |
| Temperature Range: Safe                                | -30 to +80  |        | °C                      |
| Temperature Range: Compensated                         | -10 to +40  |        | °C                      |
| Temperature Effect: On Output                          | 0.004   | 0.0012 | ±% of Applied Load / °C |
| Temperature Effect: On Zero                            | 0.007   | 0.0023 | ±% of Rated Output / °C |
| Maximum Overload at the Center Loading Point           | 150   |        | % of R.C.               |
| Ultimate Overload at the Center Loading Point          | 300   |        | % of R.C.               |
| Excitation: Recommended                                | 10  |        | VDC or Vac rms          |
| Excitation: Maximum                                    | 15  |        | VDC or Vac rms          |
| Input Impedance  | 420 ± 20  |        | Ohms                    |
| Output Impedance                                       | 350 ± 3   |        | Ohms                    |
| Insulation Resistance                                  | >1000   |        | Mega Ohms               |
| Weight: 500 - 2000 kg                                  | 0.90  |        | kg                      |
| Weight: 5000 kg  | 1.90  |        | kg                      |
| Construction   | Stainless Steel   |        |                         |
| Cable  | 5 Meters (Standard), 6 Wire Polyurethane Jacket, Dual Floating Screen |        |                         |
| Environmental Protection                               | IP67  |        |                         |

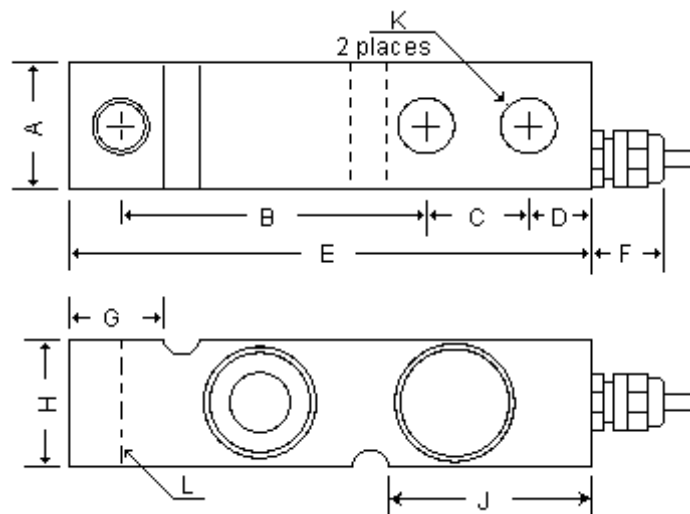
\*All accuracy specifications maintained when 150% of nominal load is applied for 3 mV/V output.

## Wiring Schematic Diagram



The two "sense" wires 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.

## Outline Dimensions All Capacities (in inches unless otherwise specified.)



| Capacity      | A    | B    | C    | D    | E    | F    | G    | H    | J    | K       | L           |            |
|---------------|------|------|------|------|------|------|------|------|------|---------|-------------|------------|
| 500 - 2000 kg | 1.26 | 3.00 | 1.00 | 0.62 | 5.12 | 0.71 | 0.93 | 1.26 | 1.99 | 13.5 mm | 1/2"-20 UNF | M12 X 1.75 |
| 5000 kg       | 1.44 | 3.75 | 1.50 | 0.75 | 6.75 | 0.71 | 1.46 | 1.89 | 2.76 | 20.5 mm | M20x2.5     | 20.5 mm    |