

## Stainless Steel Shear Beam Load Cell



### DESCRIPTION

Model 3510 provides the weighing industry with the ultimate protection necessary for today's hostile environments in an economical low profile range suitable for platform scale manufacture.

Its low profile and all welded sealing combined with high accuracy makes this load cell ideally suited for low profile platforms, pallet truck weighers, tanks and silos. The guide slots incorporated into the upper and lower mounting faces enable manufacturers to easily position the load cell.

Hermetically sealed against moisture, the construction of the model 3510 in combination with a polyurethane dual shielded cable, enables continuous operation in harsh environments while maintaining a high operating specification.

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.

### FEATURES

- Capacities 300 - 5000kg, 1000 - 5000lbs
- Stainless steel construction
- OIML R60 and NTEP approved
- Hermetically sealed to IP68
- Specially designed for harsh environment

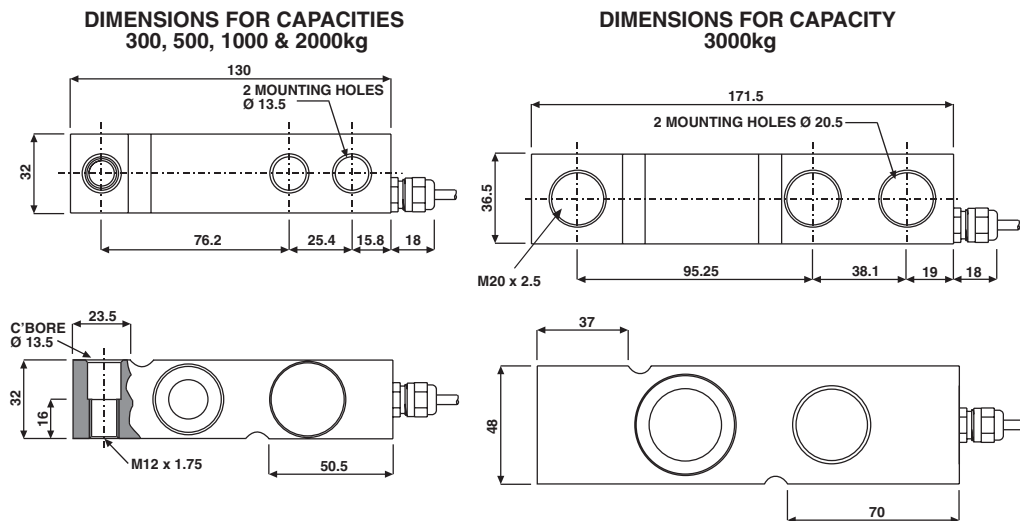
### OPTIONAL FEATURES

- EEx ia IIC T6 hazardous area approval
- FM approval available
- 1100Ω impedance available

### APPLICATIONS

- Low profile platforms
- Pallet truck weighing
- Tank and silo weighing
- Harsh environment weighing
- Food industry weighing

### OUTLINE DIMENSIONS in millimeters



Standard end loading shown.

Options include:

\*'Through-hole' - plain or threaded.

\*'T-End' - supplied current and voltage matched for platforms.

Imperial capacities can be manufactured with M12 or 1/2"-20 UNC threading

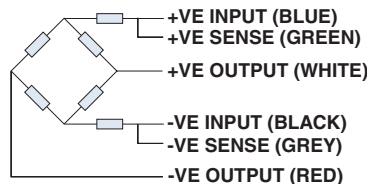
| SPECIFICATIONS                    |   |              |                     |                     |                         |
|-----------------------------------|---|--------------|---------------------|---------------------|-------------------------|
| PARAMETER                         | VALUE   |              |                     |                     | UNIT                    |
| Rated capacity-R.C. ( $E_{max}$ ) | 300, 500, 750, 1000, 1200, 2000, 3000, 5000         |              |                     |                     | kg                      |
| Rated capacity-R.C. ( $E_{max}$ ) | 1000, 1500, 2500, 4000                              |              |                     |                     | lbs                     |
| NTEP/OIML Accuracy class          | NTEP  | Non-Approved | C3                  | C6                  |                         |
| Maximum no. of intervals (n)      | 3000 single<br>5000 multiple                        | 1000         | 3000 <sup>(1)</sup> | 6000 <sup>(2)</sup> |                         |
| $Y = E_{max}/V_{min}$             | 12500   | 1400         | 12000               | 20000               | Maximum available 20000 |
| Rated output-R.O.                 | 2.0 for kg and 3.0 for lbs                          |              |                     |                     | mV/V                    |
| Rated output tolerance            | 0.1   |              |                     |                     | ±% of rated output      |
| Zero balance                      | 2   |              |                     |                     | ±% of rated output      |
| Zero Return, 30 min.              | 0.0250  | 0.0300       | 0.0170              | 0.0083              | ±% of applied load      |
| Total Error                       | 0.0200  | 0.0500       | 0.0200              | 0.0100              | ±% of rated output      |
| Temperature effect on zero        | 0.0023  | 0.0100       | 0.0023              | 0.0009              | ±% of rated output/°C   |
| Temperature effect on output      | 0.0010  | 0.0030       | 0.0010              | 0.00058             | ±% of applied load/°C   |
| Temperature range, compensated    | -10 to +40  |              |                     |                     | °C                      |
| Temperature 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                   | 380±10  |              |                     |                     | Ohm                     |
| Output impedance                  | 350±3   |              |                     |                     | Ohm                     |
| Insulation resistance             | >2000   |              |                     |                     | Mega-Ohm                |
| Cable length                      | 5   |              |                     |                     | m                       |
| Cable type                        | 6 wire, braided, Polyurethane, dual floating screen |              |                     |                     | Standard                |
| Construction                      | Stainless steel                                     |              |                     |                     |                         |
| Environmental protection          | IP68  |              |                     |                     |                         |
| Recommended torque                | 136.0 (3000 & 5000kg - 205.0)                       |              |                     |                     | N*m                     |

**Notes**

(1) 50% utilization

(2) Capacities 300-1200kg, and 1000-2500lbs only

Wiring schematic diagram



## Disclaimer

All product specifications and data are subject to change without notice.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay Precision Group"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay Precision Group disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay Precision Group's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay Precision Group.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay Precision Group products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay Precision Group for any damages arising or resulting from such use or sale. Please contact authorized Vishay Precision Group personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.