

Shear Beam Load Cell

FEATURES

- Capacities 250–2000 kg and 1000–4000 lbs
- Steel and stainless steel construction
- OIML R60 and NTEP approved
- IP67 protection
- Spiral bending support on cable
- **Optional**
 - EEx ia IIC T6 hazardous area approval
 - FM approval available
 - EDOC option available; product appearance will differ from the photograph due to coating



APPLICATIONS

- Low profile platforms
- Pallet truck weighing
- Tank and silo weighing



DESCRIPTION

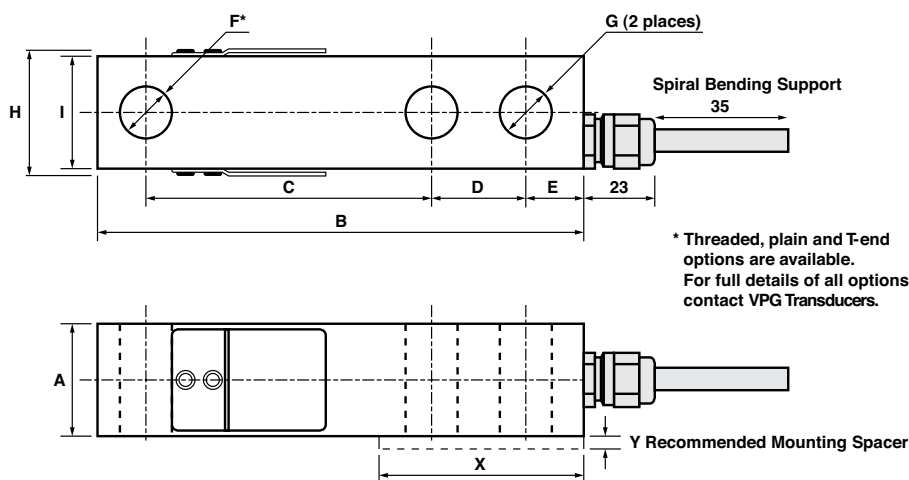
The Model 3410 is a low profile shear beam load cell designed for high accuracy platform scales, pallet scales and process weighing applications.

It has high immunity to shock or side loading and is available in 2 or 3 mV/V sensitivity. Approved to OIML and NTEP standards. For hazardous environments this load cell is available with EEx ia IIC T6 level of European approval.

Nickel plating and full environmental sealing assures long-term reliability. A stainless steel option is available for the lb versions for use in harsh or corrosive environments.

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.

OUTLINE DIMENSIONS in millimeters



* Threaded, plain and T-end options are available. For full details of all options contact VPG Transducers.

| CAPACITY | A | B | C | D | E | ØF | ØG | H | I | X | Y |
|----------------------------|------|-----|------|------|----|-------|-------|------|------|----|---|
| 1000, 1500, 2500, 4000 lbs | 30.5 | 130 | 76.2 | 25.4 | 16 | Ø13.5 | Ø13.5 | 34.0 | 30.5 | 57 | 4 |
| 250, 500, 1000 kg | 30.5 | 130 | 76.2 | 25.4 | 16 | M12* | Ø13.5 | 34.0 | 30.5 | 57 | 4 |
| 2000 kg | 36 | 130 | 76.2 | 25.4 | 16 | M12* | Ø13.5 | 34.0 | 30.5 | 57 | 4 |

* Tapped M12 X 1.75 & counterbored Ø13.5 X 14.5 Deep

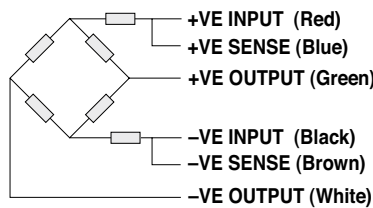
Shear Beam Load Cell

| SPECIFICATIONS | | | | |
|---|--|--------------|---------------------|-----------------------|
| PARAMETER | VALUE | | | UNIT |
| Rated capacity—R.C. (E _{max}) | 250, 500, 1000, 2000 | | | kg |
| Rated capacity—R.C. (E _{max}) | 1000, 1500, 2500, 4000 | | | lbs |
| NTEP/OIML accuracy class | NTEP | Non-Approved | C3 | |
| Maximum no. of intervals (n) | 3000 single 5000 multiple | 1000 | 3000 ⁽¹⁾ | |
| Y = E _{max} /V _{min} | 6666 | 1400 | 10000 | Maximum available |
| 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 | ±% of applied load |
| Total error (per OIML R60) | 0.0200 | 0.0500 | 0.0200 | ±% of rated output |
| Temperature effect on zero | 0.0023 | 0.0100 | 0.0023 | ±% of rated output/°C |
| Temperature effect on output | 0.0010 | 0.0030 | 0.0010 | ±% of applied load/°C |
| Temperature range | -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 | 385±10 | | | Ω |
| Output impedance | 351±5 | | | Ω |
| Insulation resistance | >2000 | | | MΩ |
| Cable length | 3.0—3410 | 6.0—3411 | | m |
| Cable type | 6-wire, braided, polyurethane, floating screen | | | Standard |
| Construction | Nickel-plated alloy steel and stainless steel | | | |
| Environmental protection | IP67 | | | |
| Recommended torque | 136 | | | N*m |

* 50% utilization

All specifications subject to change without notice.

WIRING SCHEMATIC DIAGRAM





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