

## Shear Beam Load Cell

### FEATURES

- Capacities 500–2000 kg.
- Coated Alloy Steel construction
- OIML R60 and NTEP approved (pending)
- IP67 protection
- Spiral bending support on cable
- Optional
  - ATEX, FM and IECEx approvals 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

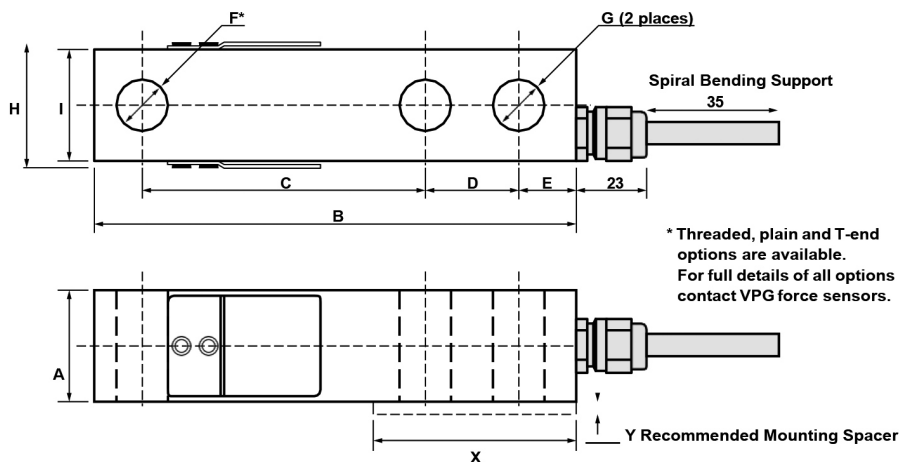
The Model 3410-5k is a low profile shear beam load cell designed for high accuracy platform scales, pallet scales and process weighing applications.

It has high immunity to shock or side loading.  
Approved to OIML and NTEP standards (pending).  
For hazardous environments this load cell is available with ATEX, FM and IECEx approvals.

Nickel plating and full environmental sealing assures long-term reliability. High impedance makes this model uniquely suitable for battery operated scales.

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



| CAPACITY      | A    | B   | C    | D    | E  | ØF   | ØG    | H    | I    | X  | Y |
|---------------|------|-----|------|------|----|------|-------|------|------|----|---|
| 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 & counter bored Ø13.5 X 14.5 Deep

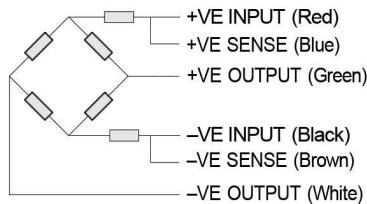
## Shear Beam Load Cell

| SPECIFICATIONS                            |   |              |        |                       |
|---|---|--------------|--------|-----------------------|
| PARAMETER                                 | VALUE   |              |        | UNIT                  |
| Rated capacity—R.C. ( $E_{\max}$ )        | 500, 1000, 2000   |              |        | kg.                   |
| NTEP/OIML accuracy class                  | NTEP  | Non-Approved | C3     |                       |
| Maximum no. of intervals (n)<br>(Pending) | 3000 single<br>5000 multiple                                      | 1000         | 3000*  |                       |
| $Y = E_{\max}/V_{\min}$                   | 6666  | 1400         | 10000  | Maximum available     |
| Rated output-R.O.                         | 2.0   |              |        | 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                           | 4500-5500   |              |        | Ω                     |
| Output impedance                          | 4400-5500   |              |        | Ω                     |
| Insulation resistance                     | >2000   |              |        | MΩ                    |
| Cable length                              | 3.0   |              |        | m                     |
| Cable type                                | 4 or 6-wire, braided shield, polyurethane jacket, floating screen |              |        | Standard              |
| Construction                              | Nickel-plated alloy steel or stainless steel                      |              |        |                       |
| Environmental protection                  | IP67  |              |        |                       |
| Recommended mounting torque               | 136   |              |        | N*m                   |

\* 30% utilization

All specifications subject to change without notice.

### WIRING SCHEMATIC DIAGRAM



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