

## Stainless Steel Shear Beam Load Cell

### FEATURES

- Capacities 300–5000 kg, 1000–5000 lbs
- Stainless steel construction
- OIML R60 and NTEP approved
- Hermetically sealed to IP68 and IP69K
- Specially designed for harsh environment
- **Optional**
  - 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

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.

### DESCRIPTION

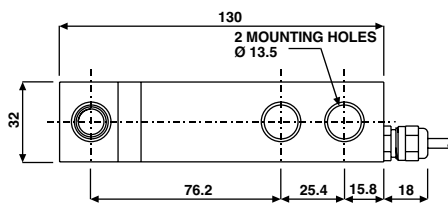
The Model 3510 provides the weighing industry with the ultimate protection necessary for today's hostile environments in an economical, low profile range suitable for platform scale manufacture.

Its low profile and fully welded sealing combined with high accuracy makes this load cell ideally suited for low

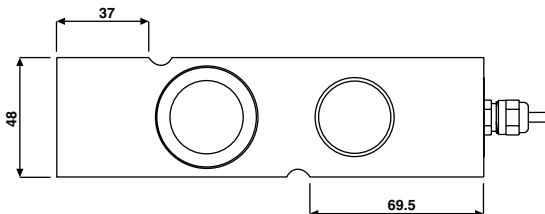
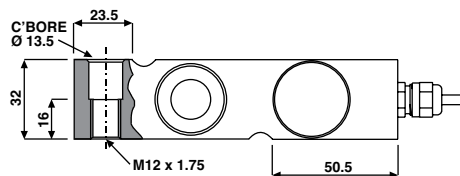
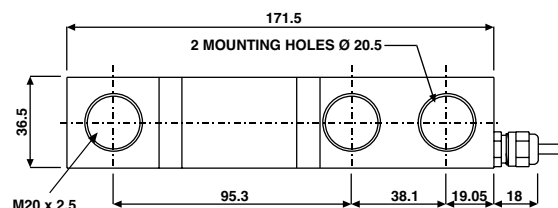
The two additional sense wires feed back the voltage reaching the load cell. Complete compensation of changes in lead resistance, due to temperature change and/or cable extension, is achieved by feeding this voltage into the appropriate electronics.

### OUTLINE DIMENSIONS in millimeters

**DIMENSIONS FOR CAPACITIES  
300, 500, 1000 and 2000 kg**



**DIMENSIONS FOR CAPACITIES  
3000 and 5000 kg**



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

Stainless Steel Shear Beam Load Cell

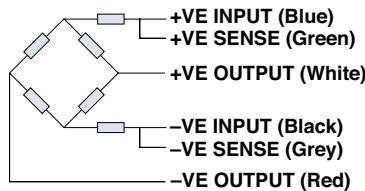
SPECIFICATIONS					
PARAMETER	VALUE				UNIT
Rated capacity—R.C. (E <sub>max</sub> )	300, 500, 750, 1000, 1200, 2000, 3000, 5000				kg
Rated capacity—R.C. (E <sub>max</sub> )	1000, 1500, 2500, 4000				lbs
NTEP/OIML accuracy class	NTEP	Non-Approved	C3	C6	
Maximum no. of intervals (n)	3000 single 5000 multiple	1000	3000 <sup>(1)</sup>	6000 <sup>(2)</sup>	
Y = E <sub>max</sub> /V <sub>min</sub>	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.	0.015% for III/3000 Single 0.010% for III/5000 Multiple	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	0.0007	±% 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	-30 to +80				°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				Ω
Output impedance	355±5				Ω
Insulation resistance	>2000				MΩ
Cable length	5				m
Cable type	6-wire, braided, polyurethane, dual floating screen				Standard
Construction	Stainless steel				
Environmental protection	IP68, IP69K				
Recommended torque	136.0 (3000 and 5000 kg—205.0)				N*m

<sup>(1)</sup> 50 % utilization

<sup>(2)</sup> Capacities 300–1200 kg, and 1000–2500 lbs only

All specifications subject to change without notice.

WIRING SCHEMATIC DIAGRAM



## Disclaimer

ALL PRODUCTS, 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, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

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

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG 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.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.