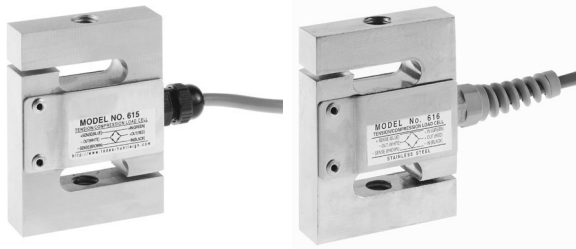


## Tension Compression Load Cells



ATEX

### FEATURES

- Capacities 50 - 1000kg
- Nickel plated alloy steel (615) or stainless steel (616) construction
- IP67 protection
- For use in tension or compression
- 6 wire (sense) circuit
- Model 615 output standardised to  $\pm 0.1\%$

### OPTIONAL FEATURE

- EEx ia IIC T4 hazardous area approval

### DESCRIPTION

Models 615 and 616 are tension-compression load cells which share the same dimensions. Humidity resistant coating and shielded cables enable these load cells to be used in harsh environments while maintaining their operating specifications.

The additional sense wires compensate for changes in lead resistance due to temperature change and/or cable extension.

Ideally suited for lever conversions, hanging scales, force measurement and a wide range of other industrial applications.

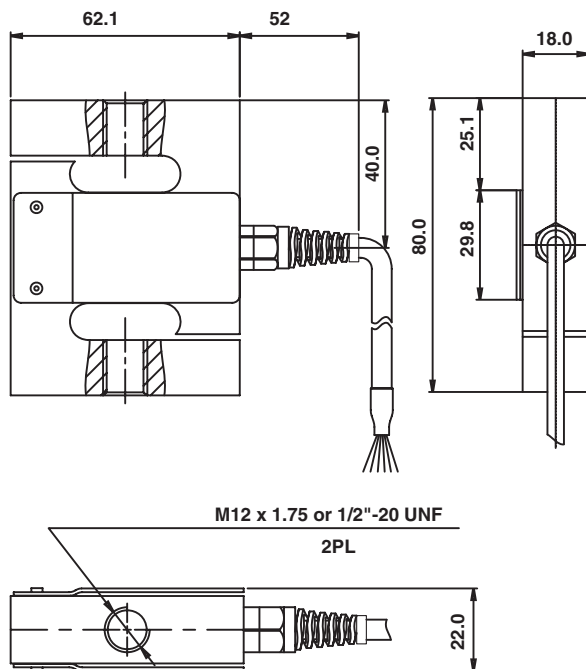
Model 616 is made from stainless steel and has bonded covers for additional protection (except 50kg). An alternative lower cost version is made from alloy steel (model 615), with rivetted covers.

### APPLICATIONS

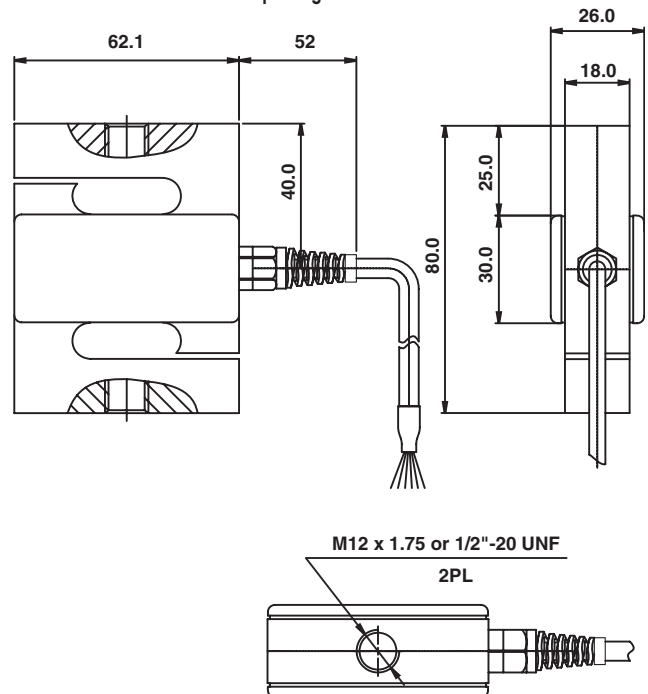
- Hopper (Tank weighing)
- Hybrid scales
- Belt weighing
- Lever arm conversions
- Material testing machines
- Vibrations filling equipment
- Dynamometers

### OUTLINE DIMENSIONS in millimeters

Dimensions - Models 615 and 616 - 50kg only



Dimensions - Model 616 - except 50kg



All dimensions in mm

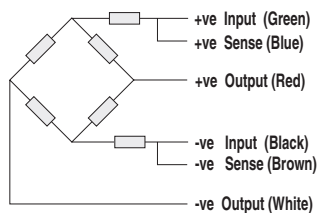
## SPECIFICATIONS

PARAMETER	VALUE		UNIT
	Non-Approved	G	
Accuracy class			
Maximum no. of intervals (n)	1000	3000	
Rated capacity-R.C. ( $E_{max}$ )	50, 100, 150, 200, 300, 500, 750, 1000*		kg
Rated output-R.O.	2.0		mV/V
Rated output tolerance	0.002		±mV/V
Zero balance	0.2		±mV/V
Zero Return, 30 min.	0.05	0.017	±% of applied load
Total Error (per OIML R60)	0.05	0.02	±% of rated output
Temperature effect on zero	0.01	0.004	±% of rated output/°C
Temperature effect on output	0.003	0.0012	±% of load/°C
Temperature range, compensated	-10 to +40		°C
Temperature range, safe	-30 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	400±20		Ohms
Output impedance	350±3		Ohms
Insulation resistance	>2000		Mega-Ohms
Cable length	3.0		m
Cable type	6 wire, PVC, single floating screen**		Standard
Construction	615 - alloy steel, 616 - stainless steel		
Environmental protection	IP67		

\* 616 does not include 50kg

\*\* 616 has polyurethane jacket braided cable with dual floating screen

**Wiring Schematic Diagram**  
(Balanced bridge configuration)



## VISHAY TRANSDUCERS (VT) SALES OFFICES

**VT Americas**  
City of Industry, CA  
PH: +1-626-858-8899  
FAX: +1-626-332-3418  
vt.us@vishaymg.com

**VT Netherlands**  
Breda  
PH: +31-76-548-0700  
FAX: +31-76-541-2854  
vt.nl@vishaymg.com

**VMG UK**  
Basingstoke  
PH: +44-125-646-2131  
FAX: +44-125-647-1441  
vt.uk@vishaymg.com

**VMG Israel**  
Netanya  
PH: +972-9-863-8888  
FAX: +972-9-863-8800  
vt.il@vishaymg.com

**VMG Germany**  
Heilbronn  
PH: +49-7131-3901-260  
FAX: +49-7131-3901-2666  
vt.de@vishaymg.com

**VT China**  
Tianjin  
PH: +86-22-2835-3503  
FAX: +86-22-2835-7261  
vt.prc@vishaymg.com

**VMG France**  
Chartres  
PH: +33-2-37-33-31-20  
FAX: +33-2-37-33-31-29  
vt.fr@vishaymg.com

**VT Taiwan\***  
Taipei  
PH: +886-2-2696-0168  
FAX: +886-2-2696-4965  
vt.roc@vishaymg.com  
\*Asia except China



## Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.