

## 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.

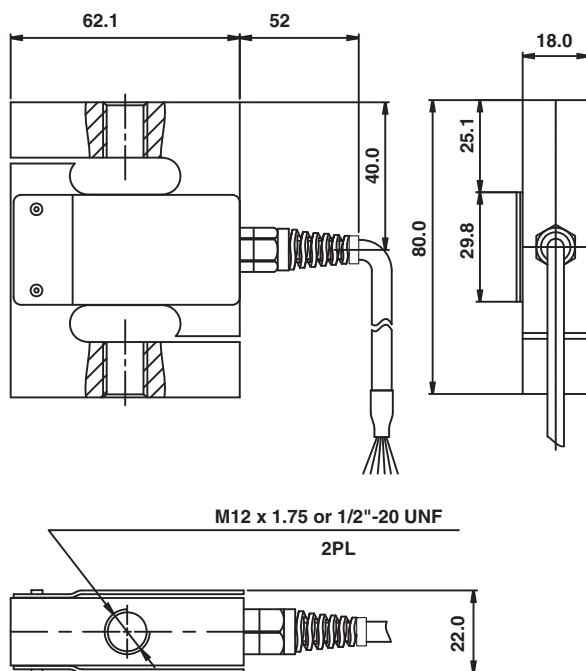
Model 616 is made from stainless steel and has bonded covers for additional protection (except 50kg). An alternative lower cost version is made from alloy steel (model 615), with rivetted covers.

### APPLICATIONS

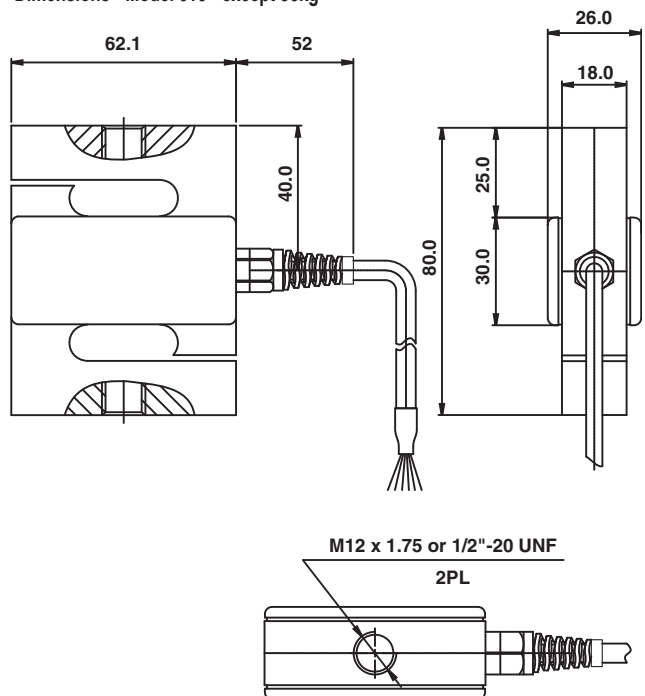
- Hopper (Tank weighing)
- Hybrid scales
- Belt weighing
- Lever arm conversions
- Material testing machines
- Vibrations filling equipment
- Dynamometers

### OUTLINE DIMENSIONS in millimeters

Dimensions - Models 615 and 616 - 50kg only



Dimensions - Model 616 - except 50kg



All dimensions in mm

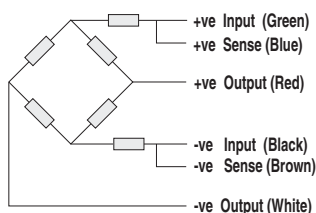
## SPECIFICATIONS

PARAMETER	VALUE		UNIT
	Non-Approved	G	
Accuracy class			
Maximum no. of intervals (n)	1000	3000	
Rated capacity-R.C. (E <sub>max</sub> )	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)



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