

## Tension Compression Load Cells



Models 614, 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.

### FEATURES

- Capacities 50 - 1000kg
- Anodized aluminum (614) or Nic 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  $\pm 0.1\%$

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). Alternative lower cost versions are made from aluminum (model 614) or alloy steel (model 615), with rivetted covers.

Model 614 from 50-300kg and models 615/616 from 50-1000kg.

SPECIFICATIONS				
GRADE	E	F	G	UNITS
Rated Capacities	50, 100, 150, 200, 300, 500*, 750*, 1000*			kg
Rated Output	2.0 $\pm$ 10% (2.0 $\pm$ 0.1% for model 615)			mV/V
Total Error	0.05	0.03	0.02	$\pm$ % of rated output
Zero Return after 30 mins	0.05	0.03	0.017	$\pm$ % of applied load
Temperature Effect: On output	0.003	0.0014	0.0012	$\pm$ % of applied load/ $^{\circ}$ C
On Zero	0.01	0.006	0.004	$\pm$ % of rated output/ $^{\circ}$ C
Zero Balance	10			$\pm$ % of rated output
Temperature Range: Operating	- 30 to + 70			$^{\circ}$ C
Compensated	- 10 to + 45			$^{\circ}$ C
Safe Overload	150			% of rated capacity
Ultimate Overload	300			% of rated capacity
Excitation: Recommended	10			Volts AC or DC
Maximum	15			Volts AC or DC
Input Impedance	Model 614: 415 $\pm$ 20, Model 615: 400 $\pm$ 20, Model 616: 385 $\pm$ 15			Ohms
Output Impedance	350 $\pm$ 3			Ohms
Insulation Impedance	> 2000			MegaOhms
Deflection at Rated Capacity	< 0.4			mm
Weight	Model 614: 0.4 Model 615/616: 0.58			kg
Construction	614: Anodized aluminum 615: Nickel plated alloy steel 616: Stainless steel			
Environmental Protection	IP67			
Cable	Model 614/615: 3 meters, 6 wire, 26 AWG, braid shield, PVC jacket. Model 616: 3 meters, 6 wire, 26AWG, braid shield, polyurethane jacket.			

# Models 614, 615 and 616

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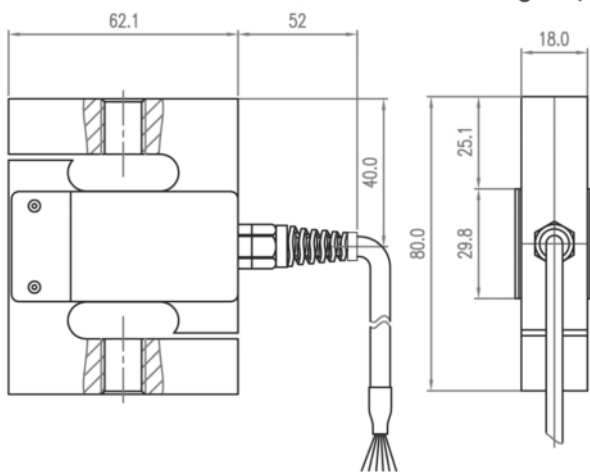


\*Not available in model 614

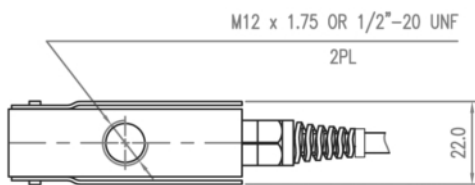
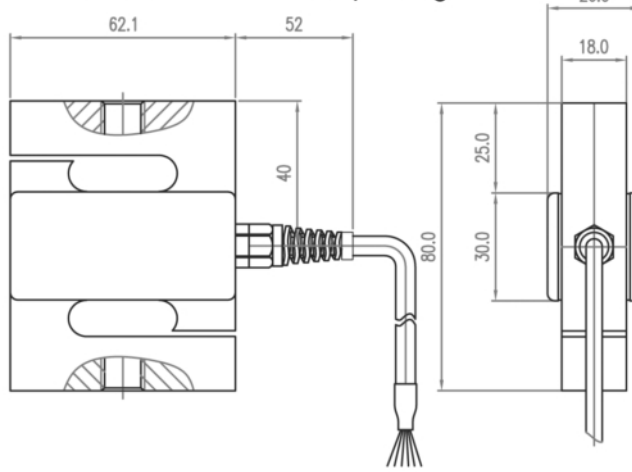
## Tension Compression Load Cells

### DIMENSIONS in millimeters

Dimensions - Models 614, 615 and 616-50 kg only

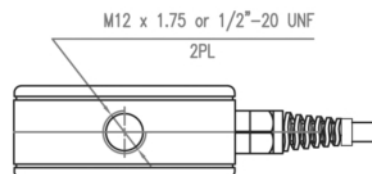
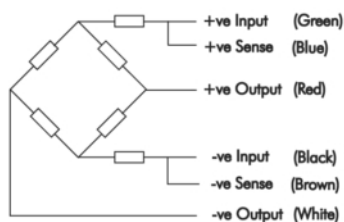


Dimensions - Model 616 except 50 kg



All dimensions in mm

Wiring Schematic Diagram  
(Balanced bridge configuration)



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