

# F245 Axial Compensated Loadcell

**Standard Ranges 100, 200, 400 and 800N (10 to 80kgf)**

- ✓ High accuracy
- ✓ Compact axial geometry
- ✓ Misalignment error compensation
- ✓ Standard 1 year warranty
- ✓ Low deflection at full load
- ✓ Traceable calibration with certificate included in the standard price



## Specification

Parameter	Value	Unit
Non-linearity - Terminal	±0.1	% RL
Hysteresis	±0.1	% RL
Creep - 20 minutes	±0.1	% AL
Repeatability	±0.02	% RL
Rated output - Nominal	2.2	mV/V
Rated output - Rationalised	2.0	mV/V
Rationalisation tolerance (applies to single direction calibrations)	±0.1	% RL
Zero load output	±4	% RL
Temperature effect on rated output per Â°C	±0.005	% AL
Temperature effect on zero load output per Â°C	±0.005	% RL
Temperature range - Compensated	-10 to +50	°C
Temperature range - Safe	-10 to +80	°C
Excitation voltage - Recommended	10	V
Excitation voltage - Maximum	10	V

Bridge resistance	350	Î©
Insulation resistance - Minimum at 50Vdc	500	MÎ©
Overload - Safe	20	% RL
Overload - Ultimate	100	% RL
Weight - Nominal (excluding cable)	40 to 50	g
Standard ranges up to 200N have an aluminium body and stainless steel case. Ranges above 200N have stainless steel bodies and cases.		

## Geometry: Flexure strain assembly in cylindrical housing, open or weather sealed with end internal fixing. For universal use in tension and compression, with compensation for off axis load inputs.

The F245 is ideally suited to low range engineering force measurements and process weighing. When precision and easy installation are required various configurations allow the loadcell to be used in both tensile and compressive applications. We are happy to design variants of this loadcell to meet your specific requirements. Versions can be manufactured for higher temperature operation. Please consult our engineering department.

### Order Codes

Code	Description
F245CF00H0	Compression, unrationalised
F245TF00H0	Tension, unrationalised
F245UF00H0	Bi-directional, unrationalised
F245CF00HN	Compression, rationalised
F245TF00HN	Tension, rationalised
F245UF00HN	Bi-directional, rationalised
Change the first 0 to an R for the IP65 version.	

## Structural Stiffness - Nominal

Range (N)	Stiffness (N/m)
100	3.2 x 10 <sup>6</sup>
200	6.4 x 10 <sup>6</sup>
400	3.0 x 10 <sup>6</sup>
800	6.0 x 10 <sup>6</sup>

## Notes

- AL = Applied load.
- RL = Rated load.
- Temperature coefficients apply over the compensated range.

## Connections

The loadcell is fitted with 2 metres of PVC insulated 4 core screened cable type 7-2-4C.

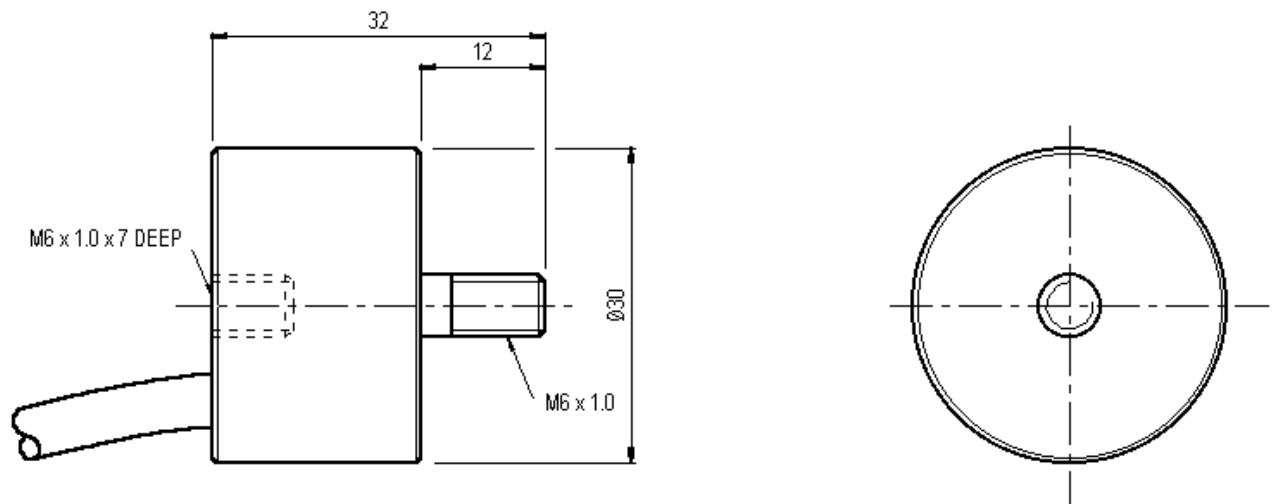
Excitation + = Red, Excitation - = Blue, Signal + = Yellow, Signal - = Green, Screen = Orange.

Reverse the signal connections to obtain a positive signal in tension mode. The screen is not connected to the loadcell body.

## Files

Type	Title	Download
STEP File	F245-C/T/U-FR0K0 All standard ranges	<a href="#">Download</a>

## Outline



### Novatech Measurements Limited

83 Castleham Road, St Leonards on Sea, East Sussex, TN38 9NT, England.

**Telephone:** +44 (0)1424 852744

**Fax:** +44 (0)1424 853002

**E-mail:** [info@novatechloadcells.co.uk](mailto:info@novatechloadcells.co.uk)