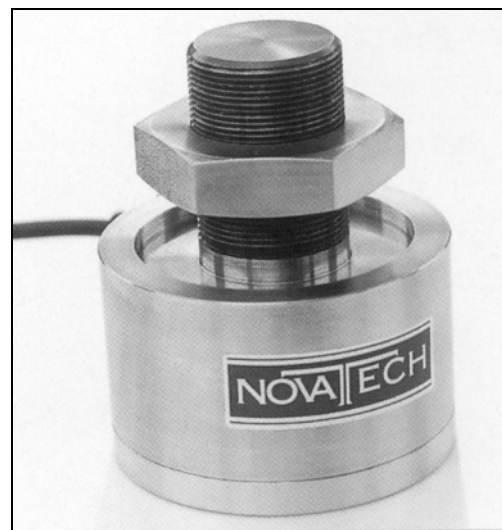


F257

Axial Compensated Loadcell

Standard Ranges 8, 12, 16 and 24tonne (80 to 240kN)

- ◆ High accuracy
- ◆ Misalignment error compensation
- ◆ Highly adaptable inert end fixings
- ◆ Standard 2 year warranty
- ◆ Output rationalised to 2mV/V



Geometry: Beam and diaphragm combination. Tension, compression and bi-directional options are available. All standard bi-directional loadcells are calibrated in both modes.

The loadcell's unique strain system compensates for typical force misalignment in force measurement rigs and industrial weighing systems. Its various end fixing options are all inert and easily modified for direct inclusion in mechanical assemblies.

The basic versions of the F257 are all sealed to IP65. If better sealing is required IP67 is available as an option. Integral 4 to 20mA or $\pm 10V$ output amplifiers can be fitted as an option. Additional information can be found in Engineering Application Sheet E032 and the ICA6H data-sheet.

We are happy to design variants of this loadcell to meet your specific requirements. Versions can be manufactured for operation up to $+250^{\circ}C$. Please consult our engineering department.

Details of our other loadcell families can be found in the Loadcell Specifier Guide. If you require a copy please contact our sales department or look on our web site at www.novatechloadcells.co.uk.

Ordering Codes:		See the loadcell ordering code sheet for more details. Add range in the required units.	
F257CFR0KN	Compression, flat base, IP65	F257DFR0KN	Compression, stud base, IP65
F257LFR0KN	Compression, convex base, IP65	F257UFR0KN	Bi-directional, stud base, IP65
F257TFR0KN	Tension, stud base, IP65	F257EFR0KN	Tension, eye base, IP65
All F257s are rationalised as standard. Change R to an S for IP67. Integral amplifiers are available with all options.			

F257 Specification

Parameter	Value	Unit
Non-linearity - Terminal	±0.1	% RL
Hysteresis	±0.1	% RL
Creep - 20 minutes	±0.05	% AL
Repeatability	±0.02	% RL
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 °C	±0.002	% AL
Temperature effect on zero load output per °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	20	V
Bridge resistance	700	Ω
Insulation resistance - Minimum at 50Vdc	500	MΩ
Inclined load error - concentric at 3°	±0.25	% RL
Overload - Safe	50	% RL
Overload - Ultimate	100	% RL
Sealing - R option	IP65	-S option
Weight - Nominal (excluding cable)	5.5 to 6.5	kg

All standard ranges are manufactured in stainless steel.

Structural stiffness - Nominal					
Range (kN)	Stiffness (N/m)	Range (kN)	Stiffness (N/m)	Range (kN)	Stiffness (N/m)
80	8.0×10^8	160	1.6×10^9		
120	1.2×10^9	240	2.4×10^9		

Notes

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

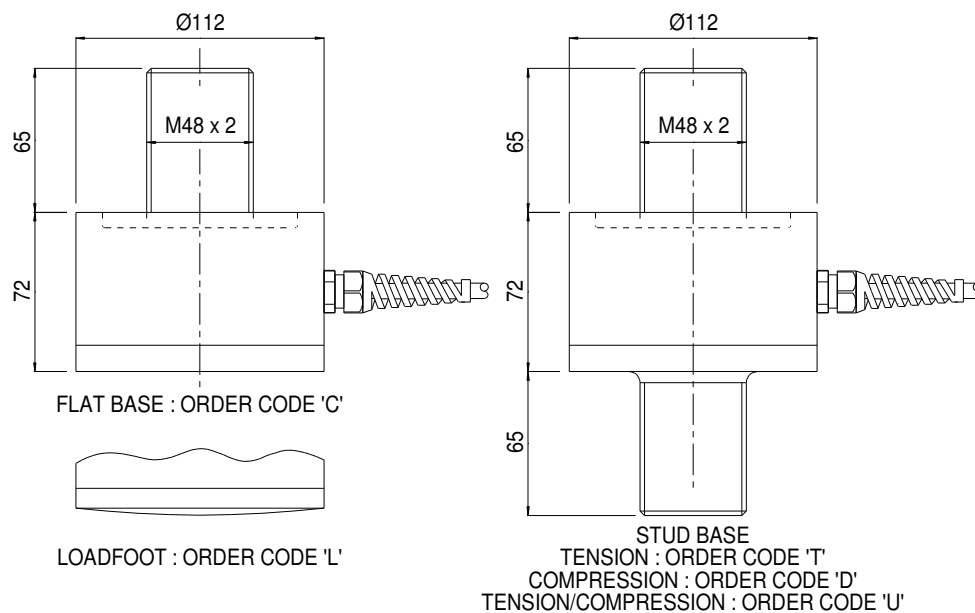
Connections

The loadcell is fitted with 2 metres of PVC insulated 4 core screened cable type 16-2-4C.

Excitation + = Red Signal + = Yellow Screen = Orange

Excitation - = Blue Signal - = Green

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



Novatech reserves the right to vary the foregoing details without prior notice

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