

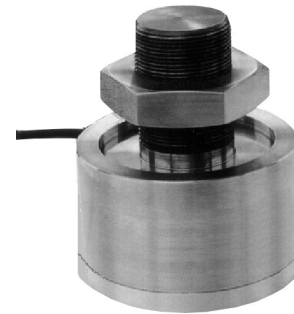


FLF257

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



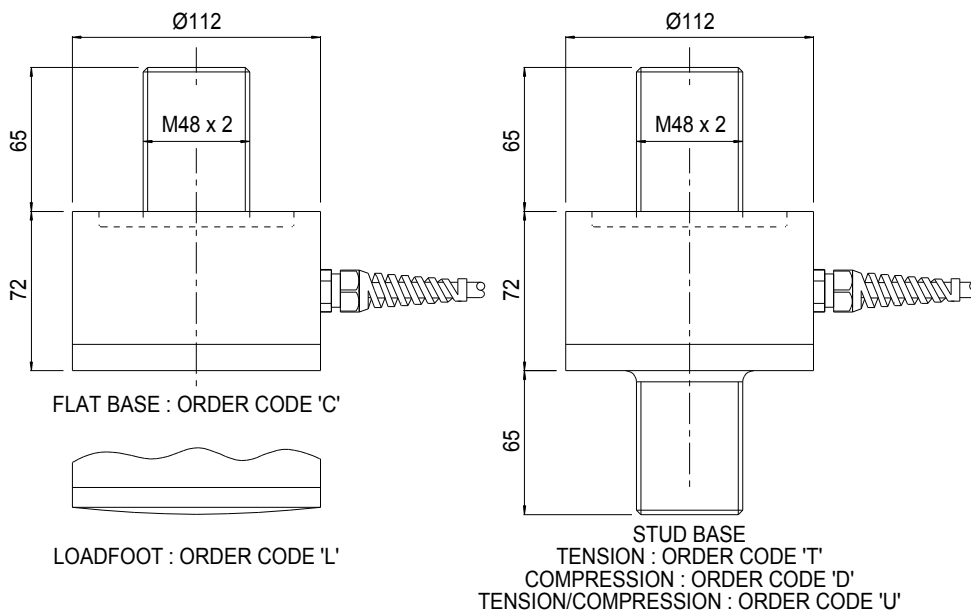
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Geometry: Beam and diaphragm combination. Tension, compression and bi-directional options are available. All standard bi-directional loadcells are calibrated in both modes.

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 FLF257 are all sealed to IP65. If better sealing is required IP67 is available as an option. An SY014 integral 4 to 20mA output amplifier can be fitted as an option.

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



■ Specifications

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	±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

1. AL = Applied load.
2. RL = Rated load.
3. 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.

■ Ordering codes

See the loadcell ordering code sheet for more details. Add range in the required units.			
FLF257CFR0KN	Compression, flat base, IP65	FLF257DFR0KN	Compression, stud base, IP65
FLF257LFR0KN	Compression, convex base, IP65	FLF257UFR0KN	Bi-directional, stud base, IP65
FLF257TFR0KN	Tension, stud base, IP65	FLF257EFR0KN	Tension, eye base, IP65
All FLF257s are rationalised as standard. Change R to an S for IP67. Integral amplifiers are available with all options.			

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