

F238 Binocular Bending Beam

Standard Ranges 50, 100 and 300N (5 to 30kgf)

- ✓ Tension / compression / bi-directional calibration
- ✓ Easy installation
- ✓ Small size single point loadcell
- ✓ Standard 1 year warranty
- ✓ All aluminium construction
- ✓ Traceable calibration with certificate included in the standard price



Specification

Parameter	Value	Unit
Non-linearity - Terminal	±0.05	% RL
Hysteresis	±0.05	% RL
Creep - 20 minutes	±0.05	% 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 $\Delta^{\circ}\text{C}$	±0.002	% AL
Temperature effect on zero load output per $\Delta^{\circ}\text{C}$	±0.005	% RL
Temperature range - Compensated	-10 to +50	$^{\circ}\text{C}$
Temperature range - Safe	-10 to +80	$^{\circ}\text{C}$
Excitation voltage - Recommended	10	V

Excitation voltage - Maximum	10	V
Bridge resistance	350	Ω
Insulation resistance - Minimum at 50Vdc	500	MΩ
Overload - Safe	20	% RL
Overload - Ultimate	100	% RL
All standard ranges are manufactured in aluminium.		

The F238 is a compact binocular bending beam loadcell for force measurements. This type of binocular beam is often referred to as a single point loadcell.

The binocular bending beam construction has good moment immunity resulting in very small errors for change in the force application point. 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
F238CF00H0	Compression, unrationalised
F238TF00H0	Tension, unrationalised
F238UF00H0	Bi-directional, unrationalised
F238CF00HN	Compression, rationalised
F238TF00HN	Tension, rationalised
F238UF00HN	Bi-directional, rationalised

Structural Stiffness - Nominal

Range (N)	Stiffness (N/m)
50	4.3 x 10 ⁴
100	8.6 x 10 ⁴
300	1.3 x 10 ⁵

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.

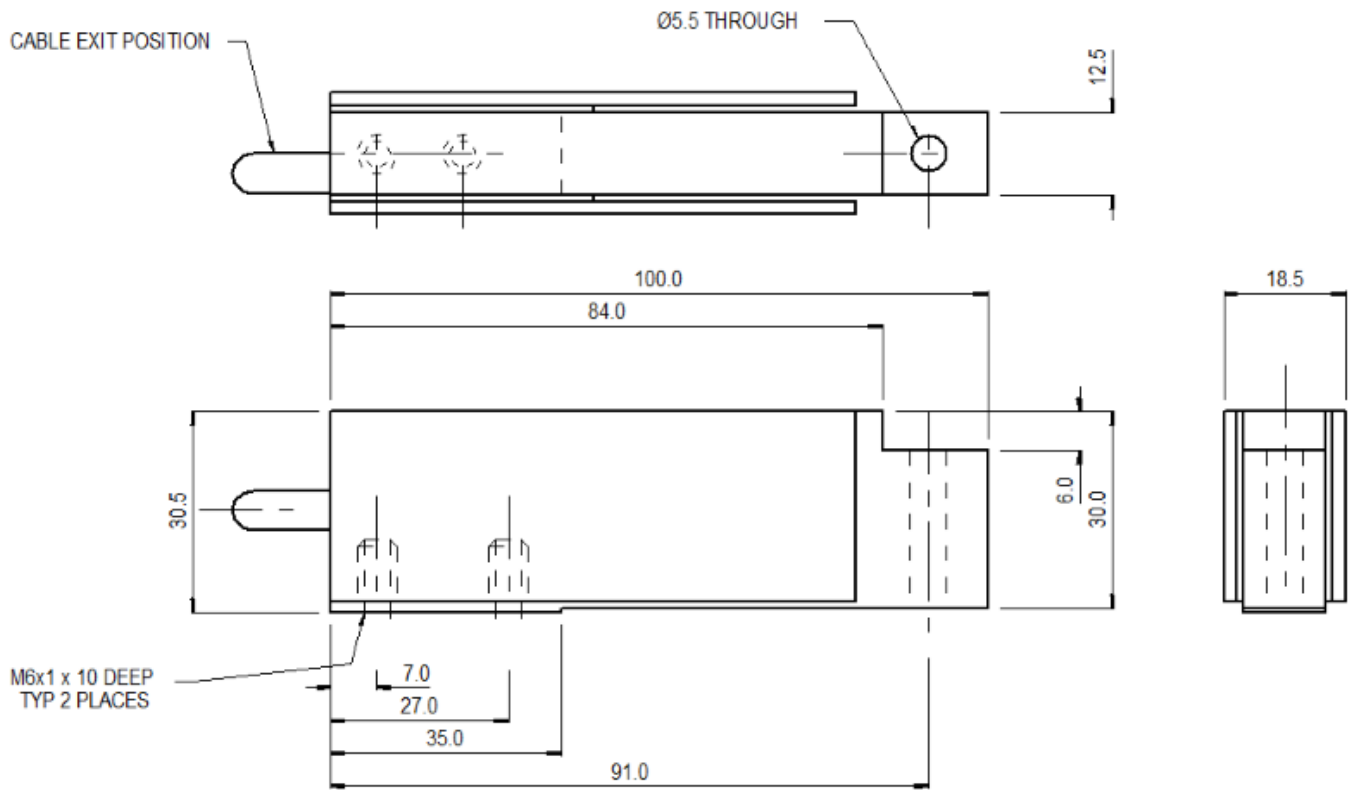
Excitation + = Red, Excitation - = Blue, Signal + = Yellow, Signal - = Green, Screen = Orange.

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	F238-C/T/U-FR0H0 All standard ranges	Download

Outline



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