



**Binocular Bending Beam** Standard Ranges 5, 10 and 30kg (50 to 300N)

- Tension / compression / bi-directional calibration
- ♦ Easy installation
- ♦ Small size single point loadcell
- Standard 2 year warranty
- All aluminium construction



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.

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.				
F238CF00H0	Comp	pression, unrationalised	F238CF00HN	Compression, rationalised		
F238TF00H0	Tension, unrationalised		F238TF00HN	Tension, rationalised		
F238UF00H0	Bi-directional, unrationalised		F238UF00HN	Bi-directional, rationalised		

## **F238 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	±0.1	% RL
Zero load output	<u>±</u> 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	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.		

Structural stiffness - Nominal									
Range (N)	Stiffness (N/m)	Range (N)	Stiffness (N/m)	Range (N)	Stiffness (N/m)				
50	$4.3 \times 10^4$	100	$8.6 \times 10^4$	300	$1.3 \times 10^5$				

## Notes

1. AL = Applied load.

3. Temperature coefficients apply over the compensated range.

## 2. RL = Rated load.

Connections

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

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

08/2007

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