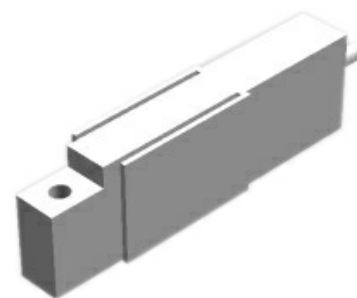




N ALF 238

Description

- Measurement range 0 ... 50 N to 0 ... 300 N
- Tension / compression
- Non-linearity 0.05 % RL
- Output 2.2 mV/V or rationalised 2.0 mV/V ± 0.1 %
- Supply voltage 10 VDC

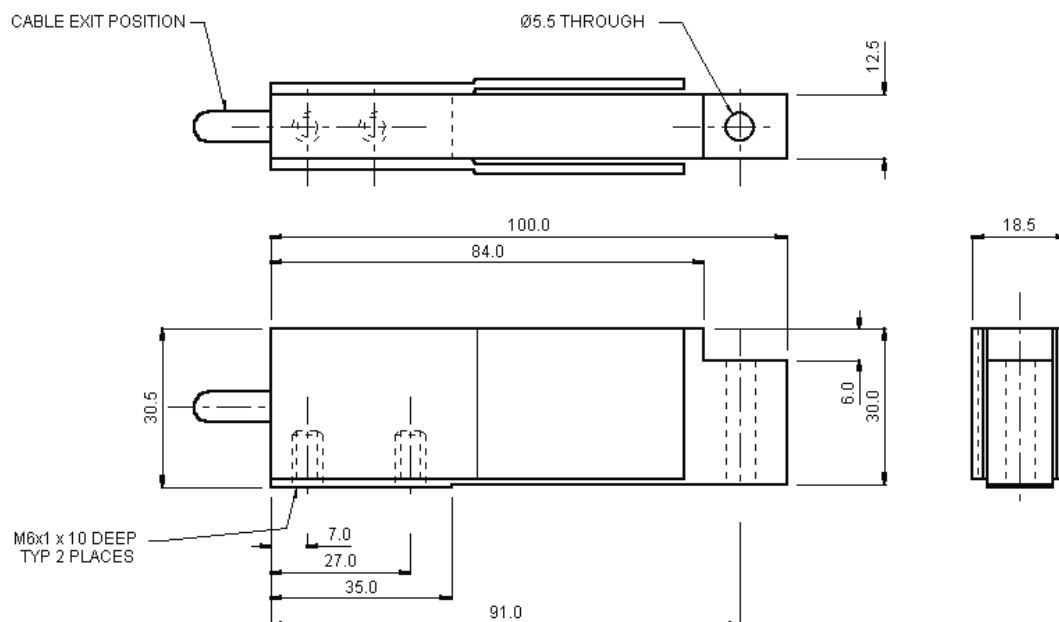


The ALF238 load cell is a compact binocular bending beam load cell for force measurements. This type of binocular beam is often referred to as a single point load cell. The binocular bending beam construction has good moment immunity resulting in very small errors for change in the force application point.

Features

- Tension / compression / bi-directional calibration
- Easy installation
- Small size single point loadcell
- All aluminium construction
- Traceable calibration with certificate

Dimensions



Dimensions in „mm“, approx. values

These drawings are for information only and not intended for construction purpose.

Please contact us for detailed drawings

Specifications

Rated load:	50 N, 100 N, 300 N
Calibration:	Compression, tension, bi-directional
Non-linearity, terminal:	±0.05 % RL
Hysteresis:	±0.05 % RL
Creep, 20 min:	±0.05 % AL
Repeatability:	±0.02 % RL
Rated output, nominal:	2.2 mV/V
Rated output, rationalised:	2.0 mV/V ±0.1 % RL, rationalisation tolerance applies to single direction calibrations only
Zero load output:	±4 % RL
Temperature effect on rated output:	±0.002 % AL/K
Temperature effect on zero load output:	±0.005 % RL/K
Compensated temperature range:	-10 ... +50 °C
Operating temperature range:	-10 ... +80 °C
Supply voltage, recommended:	10 V
Supply voltage, maximum:	10 V
Bridge resistance:	350 Ω
Insulation resistance, minimum at 50 VDC:	500 MΩ
Overload, safe:	120 % RL
Overload, ultimate:	200 % RL
Material:	Aluminium

Rated load	Struct. stiffness, nom.	Rated load	Struct. stiffness, nom.	Rated load	Struct. stiffness, nom.
50 N	4.3 x 10 ⁴ N/m	100 N	8.6 x 10 ⁴ N/m	300 N	1.3 x 10 ⁵ N/m

Notes:

1. RL = rated load
2. AL = applied load
3. Temperature coefficients apply over the compensated range.

Electrical Connections

The load cell is fitted with 2 m of PVC insulated 4 core screened cable type 7-2-4C.

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

Wiring:

red	+ supply voltage
blue	- supply voltage
yellow	+ output signal
green	- output signal
orange	screen

Ordering Codes

ALF238CF00H0	Compression	ALF238CF00HN	Compression, rationalised
ALF238TF00H0	Tension	ALF238TF00HN	Tension, rationalised
ALF238UF00H0	bi-directional	ALF238UF00HN	bi-directional, rationalised

Please, add range in the required units.

Safety note:

When using the load cell in tension mode it is essential to provide additional safety precautions like safety chains etc. for catching the load in a breakage, which cannot be excluded completely.

Due to continuous product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.