



## N ALF 245

### Description

- Measurement ranges 0 ... 100 N to 0 ... 800 N
- Tension / compression
- Non-linearity 0.1 % RL
- Output signal 2.2 mV/V or rationalised 2.0 mV/V  $\pm 0.1$  %
- Supply voltage 10 VDC



The ALF245 is ideally suited to low range engineering force measurements and process weighing. When precision and easy installation are required various configurations allow the load cell to be used in both tensile and compressive applications.

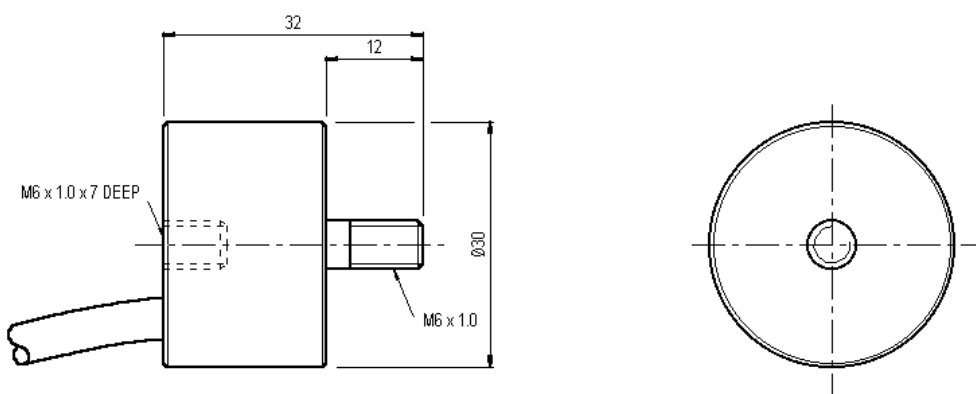
### Geometry:

Flexure strain assembly in cylindrical housing, open or weather sealed with end internal fixing. For universal use in tension and compression, with compensation for off axis load inputs.

### Features

- High accuracy
- Compact axial geometry
- Misalignment error compensation
- Low deflection at full load
- Traceable calibration with certificate included

### 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:	100 N, 200 N, 400 N, 800 N
Non-linearity, terminal:	±0.1 % RL
Hysteresis:	±0.1 % RL
Creep, 20 min:	±0.1 % 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, max.:	10 V
Bridge resistance:	350 Ω
Insulation resistance, minimum at 50 VDC:	500 MΩ
Overload, safe:	120 % RL
Overload, ultimate:	200 % RL
Weight (excl. cable):	approx. 40 g to 50 g
Material:	ranges 100 N and 200 N: aluminium body and stainless steel case ranges 400 N and 800 N: stainless steel

Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.
100 N	3.2 x 10 <sup>6</sup> N/m	400 N	3.0 x 10 <sup>6</sup> N/m
200 N	6.4 x 10 <sup>6</sup> N/m	800 N	6.0 x 10 <sup>6</sup> 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.

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

Reverse the signal connections to obtain a positive signal in tension mode.

The screen is not connected to the load cell body.

## Ordering Codes

ALF245CF00HO	Compression	ALF245CF00HN	Compression, rationalised
ALF245TF00HO	Tension	ALF245TF00HN	Tension, rationalised
ALF245UF00HO	Bi-directional	ALF245UF00HN	Bi-directional, rationalised

Change the first 0 to an R for the IP65 version.  
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.

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*The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.*

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