



## N ALF 302

### Description

- Measurement range 0 ... 5 kN to 0 ... 50 kN
- Compression
- Non-linearity 0.5 % RL
- Output signal rationalised 2.0 mV/V  $\pm 0.5$  %
- Supply voltage 10 VDC



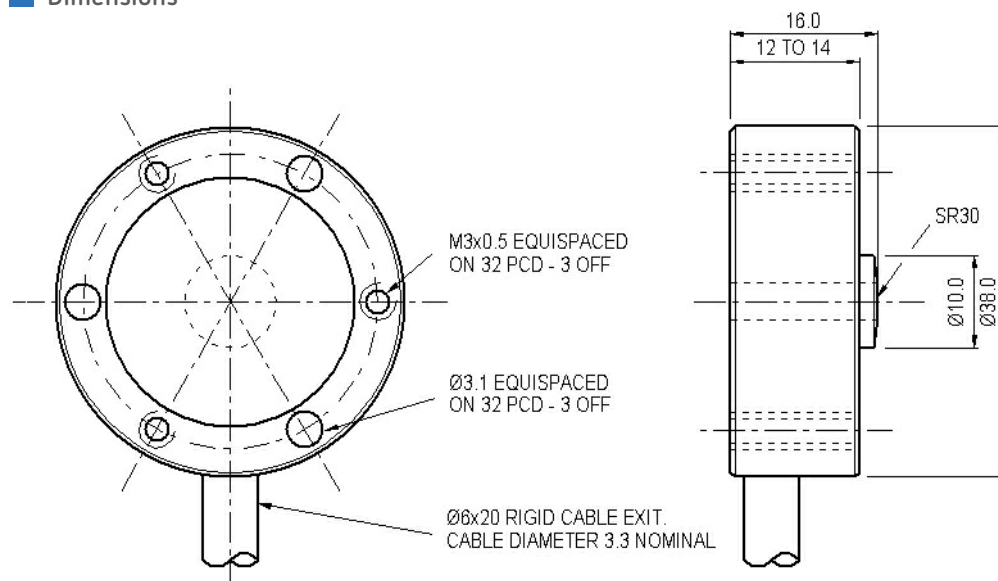
The ALF302 is designed for force measurement in compression. The load cell is designed for simple mounting on a smooth flat surface. It has an integral load button and is supplied with three tapped holes and three clearance holes enabling fixing or location from either above or below the load cell.

In the event of structural failure of the load cell the resulting vertical movement of the supported load will be very small.

### Features

- Very low profile
- Universal fixing
- Hardened stainless steel
- Sealed to IP65
- Traceable calibration with certificate

### Dimensions



Dimensions in „mm“, approximate values

These drawings are for information only and not intended for construction purpose.  
Please contact us for detailed drawings.

## Specifications

Rated load:	5 / 10 / 25 / 50 kN
Calibration:	Compression
Non-linearity, terminal:	±0.5 % RL
Hysteresis:	±0.3 % RL
Creep, 20 min:	±0.05 % AL
Repeatability:	±0.1 % RL
Rated output, rationalised:	2.0 mV/V ±0.5 % RL
Zero load output:	±4 % RL
Temperature effect on rated output:	±0.005 % 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:	150 % RL
Overload, ultimate:	400 % RL
Dynamic load capacity:	70 % RL
Environmental sealing:	IP65
Weight (excl. cable):	approx. 78 g to 90 g
Material	Stainless steel

Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.
5 kN	1.0 x 10 <sup>8</sup> N/m	25 kN	1.1 x 10 <sup>9</sup> N/m
10 kN	2.9 x 10 <sup>8</sup> N/m	50 kN	2.2 x 10 <sup>9</sup> N/m

### Notes:

1. RL = rated load
2. AL = applied load
3. Temperature coefficients apply over the compensated range.
4. The load must be applied directly through the central loading axis.
5. Since the output tolerance is ±0.5 % RL the load cell can be used in parallel mode with several load cells (e. g. hopper, platforms etc.)
6. This load cell is rationalised and the resistors are housed in a capsule located in the load cell cable 100 mm from the free end. Capsule dimensions are Ø10 mm by 57 mm.

## Electrical Connections

The load cell is fitted with 2 m of PVC insulated 4 core screened cable type 7-1-4C.

Wiring:	
+ supply voltage:	red
- supply voltage:	blue +
output signal:	yellow
- output signal:	green
screen:	orange
The screen is not connected to the load cell body.	

## Ordering Codes

ALF302CFR0HN	Compression, IP65, rationalised
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If a non-standard cable length is required add this to the description and change the F to B. If bottom cable entry is required add this information to the description. Please add range in the required units.

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