



N ALF210

Description

- Measurement ranges 0 ... 7.5 kN to 0 ... 50 kN
- Compression
- Non-linearity 0.5 % RL
- Output signal 1.2 mV/V or rationalised 1.0 mV/V ± 0.5 %
- Supply voltage 10 VDC, max. 20 VDC

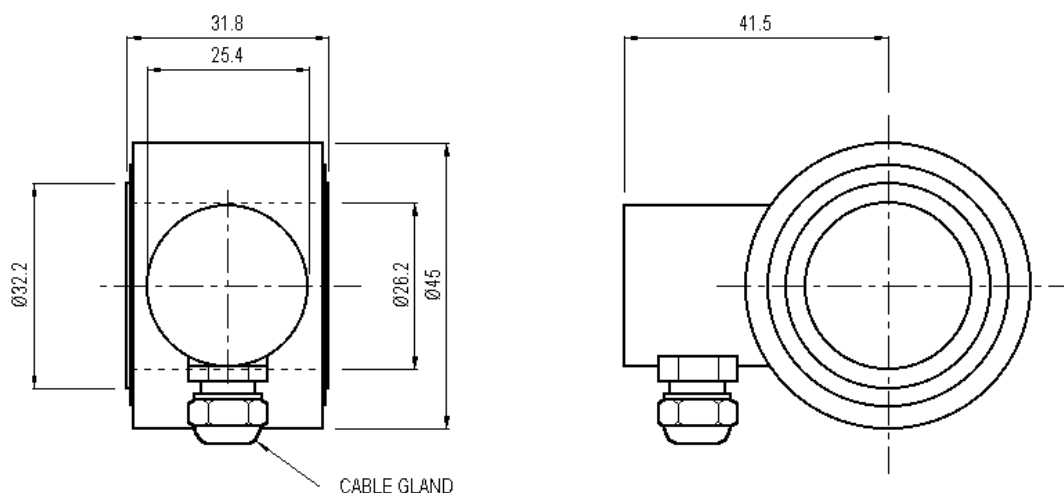
The ALF210 is ideally suited to engineering force measurements including through centre safety testing of cables, rods and bolts.

It is designed for easy installation, usually between two flat faces bearing on its loading rings, either unattached or with retaining spigots positioned in the centre hole. Alternatively tensile load transfer can be achieved via a tie rod assembly through the centre hole. In this way the load cell can indirectly measure tensile loads in a "fail-safe" mode.

Features

- Hardened stainless steel body
- Very high structural load limit
- Sealed to IP65
- 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:	7.5 kN / 10 kN / 15 kN / 25 kN / 50 kN
Non-linearity, terminal:	±0.5 % RL
Hysteresis:	±0.5 % RL
Creep, 20 min:	±0.05 % AL
Repeatability:	±0.02 % RL
Rated output, nominal:	1.2 mV/V
Rated output, rationalised:	1.0 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:	±0.03 % RL/K
Compensated temperature range:	-10 ... +50 °C
Operating temperature range:	-10 ... +80 °C Supply
voltage, recommended:	10 V
Supply voltage, max.:	20 V
Bridge resistance:	700 Ω
Insulation resistance, minimum at 50 VDC:	500 MΩ
Overload, safe:	150 % RL
Overload, ultimate:	400 % RL
Dynamic load capacity:	70 % RL
Sealing:	IP65
Weight (excl. cable):	approx. 240 g to 280 g
Material:	Stainless steel

Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.
7.5 kN	5.0 x 10 ⁸ N/m	15 kN	1.0 x 10 ⁹ N/m	50 kN	3.3 x 10 ⁹ N/m
10 kN	6.7 x 10 ⁸ N/m	25 kN	1.7 x 10 ⁹ 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. It is essential to use load cells with rationalised output when operating several load cells (e. g. hopper, platform etc.) in parallel mode!

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.

Wiring:

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

Ordering Codes

ALF210CFR0K0	Compression, IP65	ALF210CFR0KN	Compression, IP65, rationalised
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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.