



N ALF202

Al HEN AL HEN HENRY BIT

Description

- Measurement ranges 0 ... 10 kN to 0 ... 200 kN
- Compression
- Non-linearity 0.1 % RL
- Output 1.2 mV/V or rationalised 1.0 mV/V \pm 0.5 %
- Supply voltage 10 VDC, max. 20 VDC
- Optional with integrated electronics

The ALF202 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. A load button and base plate are available for the ALF202.

Geometry:

Axial strain cylinder in weather sealed case, with raised end load bearing faces and hole right through. For use in compression or in fail-safe tensile applications.

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:	10 / 25 / 50 / 100 / 200 kN
Calibration:	Compression
Non-linearity, terminal:	±0.1 % RL
Hysteresis:	±0.1 % 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 ΜΩ
Overload, safe:	150 % RL
Overload, ultimate:	400 % RL
Dynamic load capacity:	70 % RL
Sealing:	IP65
Weight (excl. Cable):	approx. 1.6 kg to 1.8 kg
Material:	Stainless steel

Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.
10 kN	2.7 x 10 ⁸ N/m	50 kN	1.4 x 10º N/m	200 kN	5.4 x 10º N/m
25 kN	6.8 x 10 ⁸ N/m	100 kN	2.7 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 Connection

The load cell is fitted with 2 m of PVC insulated 4 core screened cable type 16-2-4C.

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

The screen is not connected to the load cell body.

Option: Integrated Electronics

The amplifier is built onto the load cell in an additional housing. The dimensions of the load cell will change.

Integrated amplifier with 4 ... 20 mA output 2-wire, voltage supply 24 VDC (20 ... 36 VDC) Integrated amplifier with 4 ... 20 mA output 3-wire, voltage supply 12 VDC (11,5 ... 12,5 VDC)

Integrated amplifier with 4 ... 20 mA output 3-wire, voltage supply 2 VDC (11,5 ... 12,5 VDC)

Integrated amplifier with voltage output 0 ... 10 V, voltage supply 14 ... 27 VDC

Ordering Codes

ALF202CFR0K0	Compression, IP65	ALF202CFR0KN	Compression, IP65, rationalised
Option Integrated Amplifier: Please add range.	a special order no. ALF202-Zxxx will be create	ed	

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

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Germany/Austria/Switzerland	Benelux	France	Sweden	USA/Canada	Other countries
info@althen.de	sales@althen.nl	info@althensensors.fr	info@althensensors.se	info@althensensors.com	info@althensensors.com