



N ALF205

Description

- Measurement ranges 0 ... 1000 kN and 0 ... 2000 kN
- Compression
- Non-linearity 0.5 % RL
- Output 1.2 mV/V or rationalised 1.0 mV/V ± 0.5 %
- Supply voltage 10 VDC, max. 20 VDC



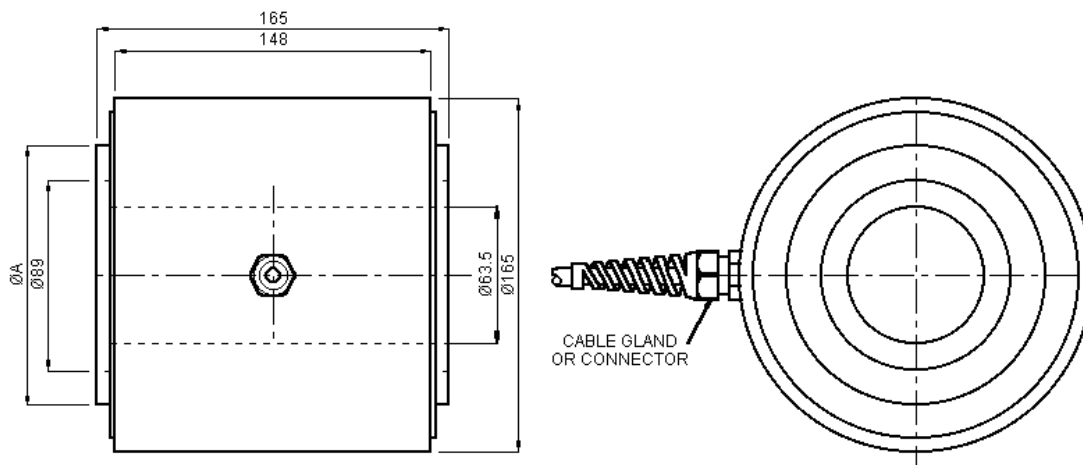
The ALF205 is ideally suited to engineering force measurements including through centre safety testing of cables, rods and bolts.

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.

Geometry:

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

Dimensions



Rated load	ØA
1000 kN	120.7
2000 kN	137.0

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:	1000 kN, 2000 kN
Calibration:	Compression
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. 18 kg to 19 kg
Material:	Stainless steel

Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.
1000 kN	1.5 x 10 ¹⁰ N/m	2000 kN	3.0 x 10 ¹⁰ 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.

Electrical Connection

The load cell is fitted with 2 m of PVC insulated 4 core screened cable type 16-2-4C or a 4 pin Binder 723 series chassis plug. The screen is not connected to the load cell body.

Wiring:

+ supply voltage	red	Pin 1
- supply voltage	blue	
+ output signal	yellow	
- output signal	green	
screen	orange	

Ordering Codes

ALF205CFR0K0	Compression, IP65, cable	ALF205CFR0K0	Compression, IP65, cable, rationalised
ALF205CPR0K0	Compression, IP65, connector	ALF205CPR0K0	Compression, IP65, connector, rationalised
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.