N ALF209

Description

- Measurement ranges 0 ... 1000 kN to 0 ... 4000 kN
- Compression
- Non-linearity 1.0 % RL
- Output signal 1.2 mV/V or rationalised 1.0 mV/V ±0.5 %
- Supply voltage 10 VDC

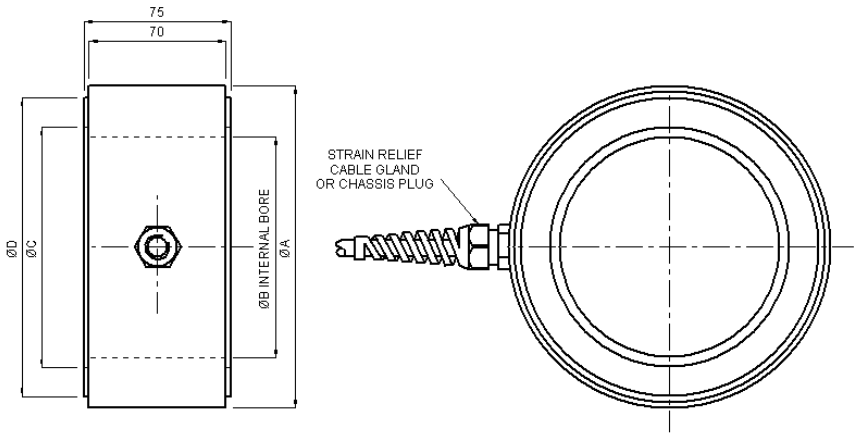
The ALF209 is ideally suited to engineering force measurements including through centre safety testing of cables, rods and bolts.

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
- Flying lead or connector option
- Sealed to IP65
- Traceable calibration with certificate

Dimensions



Rated load	A	B	C	D
1000 kN	170	113	123	146
2000 kN	170	113	113	158
4000 kN	270	175	175	235

Dimensions in „mm", approx. values

This drawing is for information only and not intended for construction purpose. Please contact us for detailed drawings.

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Specifications

Rated load:	1000 kN, 2000 kN, 4000 kN
Non-linearity, terminal:	±1.0 % RL
Hysteresis:	±1.0 % RL
Creep, 20 min:	±0.1 % AL
Repeatability:	±0.02 % RL
Rated output, nominal:	1.2 mV/V
Rated output, rationalized:	1.0 mV/V ±0.5 % RL (for 1000 kN and 2000 kN models only)
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.:	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
Sealing:	IP65
Weight (excl. cable):	approx. 7 kg to 9 kg
Material:	Stainless steel

Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.
1000 kN	4.0 x 10^{10} N/m	2000 kN	8.0 x 10^{10} N/m	4000 kN	1.6 x 10^{11} 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 Connections

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:	Cable	Connector
+ supply voltage:	red	Pin 1
- supply voltage:	blue	Pin 2
+ output signal:	yellow	Pin 3
- output signal:	green	Pin 4
screen:	orange	

Ordering Codes

ALF209CFR0H0	Compression, IP65, cable	ALF209CFR0HN	Compression, IP65, cable, rationalised
ALF209CPR0H0	Compression, IP65, connector	ALF209CPR0HN	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.

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