

ALF216

Load Cell

- ▣ Measurement range 0 ... 5 kN to 0 ... 40 kN
- ▣ Compression
- ▣ Non-linearity 0.5 % RL
- ▣ Output 1.2 mV/V or rational. 1.0 mV/V ± 0.5 %
- ▣ Supply voltage 10 VDC, max. 20 VDC

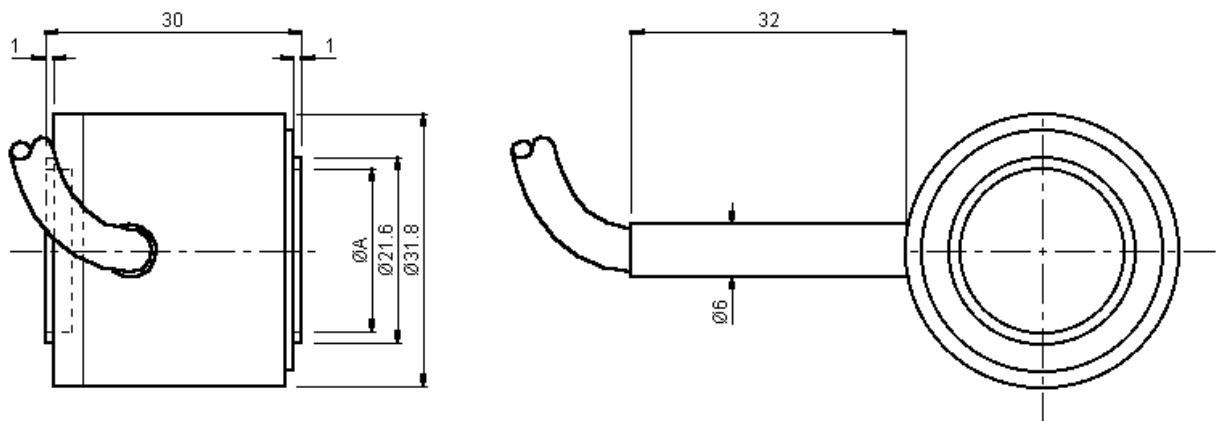


The ALF216 load cell is ideally suited to engineering force measurements. It is designed for easy installation, usually between two flat faces bearing on its loading rings. The small size of this loadcell makes it an ideal force sensor for mounting in existing machinery. It has been used in presses and printing machines.

Geometry:

Axial strain cylinder in weather sealed case, with raised end load bearing faces. For use in compression.

▣ Dimensions



Rated load	ØA
5 kN	19.1
10 kN	19.1
20 kN	19.1
40 kN	12.5

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:	5 / 10 / 20 / 40 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
Sealing:	IP65
Weight (excl. Cable)	approx. 90 g to 100 g
Material	Stainless steel

Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.
5 kN	2.4×10^8 N/m	20 kN	9.6×10^8 N/m
10 kN	4.8×10^8 N/m	40 kN	1.9×10^9 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.

■ Electrical Connection

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

ALF216CFR0K0	Compression, IP65	ALF216CFR0KN	Compression, IP65, rationalised
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Please add range in the required units.

Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.