

ALF225

High load ultra low profile load cell

- ▣ Measurement ranges 0 ... 50 kN and 0 ... 100 kN
- ▣ Compression
- ▣ Non-linearity 0.5 % RL
- ▣ Output signal 2.3 mV/V or rationalised 2.0 mV/V ± 0.5 %
- ▣ Supply voltage 10 VDC



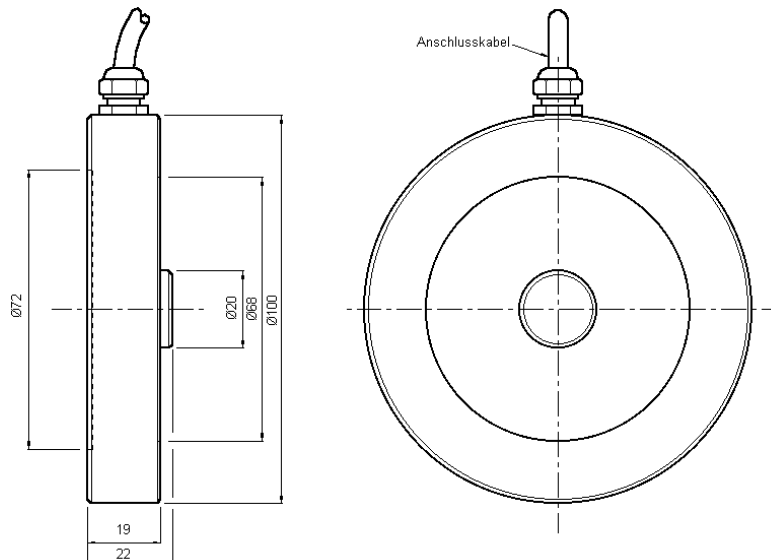
The ultra slim design provides for ease of installation beneath heavy machinery mounts, hydraulic rams or interposed within series mechanical compression assemblies.

In the event of structural failure of the loadcell the resulting vertical movement of the supported load including normal deflection will not exceed 2.5 mm.

Geometry:

Ultra low profile axial loadcell for use in force measurements in compression.

▣ Dimensions



Dimensions in „mm“, approx. values

These drawings are for information only and not intended for construction purpose.
Please contact us for detailed drawings.

■ Specification

Rated load:	50 kN / 100 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:	2.3 mV/V
Rated output, rationalised:	2.0 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:	±0.005 % 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
Sealing:	IP65, optional IP67
Weight (excl. cable):	approx. 0.8 kg
Material:	Stainless steel

Rated load	Structural stiffness, nom.	Rated load	Structural stiffness, nom.
50 kN	2.1×10^{10} N/m	100 kN	4.2×10^{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.
5. When this loadcell is rationalised the resistors are housed in a capsule located in the loadcell cable 100 mm from the free end.
Capsule dimensions are Ø10 mm by 57 mm.

■ 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

ALF225CFR0H0	Compression, IP65	ALF225CFR0HN	Compression, IP65, rationalised
ALF225CFS0H0	Compression, IP67	ALF225CFS0HN	Compression, IP67, rationalised
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.