N ALF 252

Description

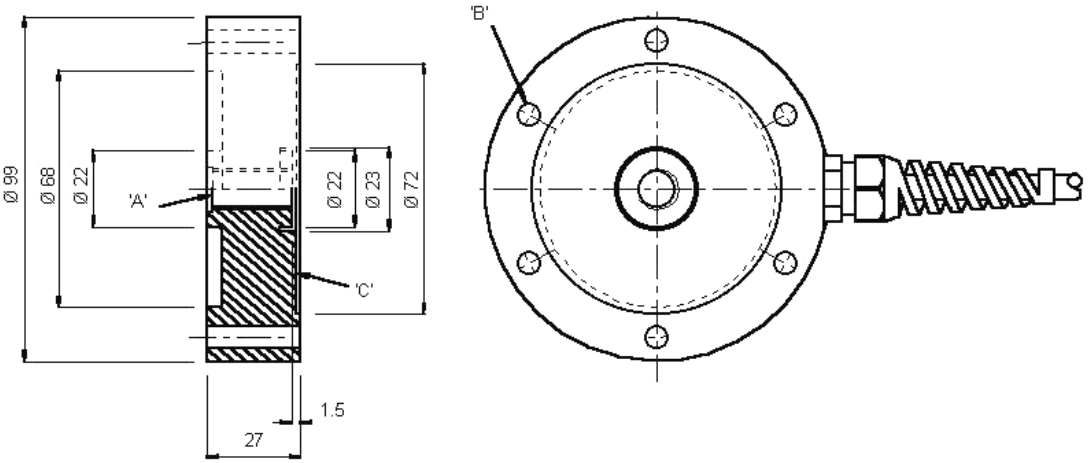
- Measurement ranges 0 ... 1 kN to 0 ... 10 kN
- Tension / compression
- Non-linearity 0.1 % RL
- Output signal 1.6 mV/V or rationalised 1.5 mV/V ±0.5 %
- Supply voltage 10 VDC, max. 20 VDC

The ALF252 load cell is ideal for engineering force measurements particularly in applications where there is a limit on the height of the load cell. It can be used for test machines and a wide range of general industrial applications. With bi-directional versions there is a small difference between the output signal for compression and tension. All standard bi-directional load cells are calibrated in both modes and the output for each direction is stated on the test / calibration certificate.

Features

- Tension / compression / bi-directional calibration
- Compact size
- Low deflection
- Hardened stainless steel body
- Traceable calibration with certificate

Dimensions



A	hole: through M12 x 1.75; counterbored Ø13 mm, 1.5 mm deep
B	6 holes, Ø 6,5 mm, equispaced on a 85 mm PCD
C	cover disk

Dimensions in „mm", approx. values
These drawings are for information only and not intended for construction purpose.
Please contact us for detailed drawings.

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Specifications

Rated load:	1 kN, 2 kN, 4 kN, 8 kN, 10 kN
Load type:	Compression, tension, bi-directional
Non-linearity, terminal:	±0.1 % RL
Hysteresis:	±0.1 % RL
Creep, 20 min:	±0.05 % AL
Repeatability:	±0.02 % RL
Rated output, nominal:	1.6 mV/V
Rated output, rationalised:	1.5 mV/V ±0.5 % RL Rationalisation tolerance applies to single direction calibrations only
Zero load output:	±4 % RL
Temperature effect on rated output:	±0.005 % AL/K
Temperature effect on zero load output:	±0.02 % 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:	200 % RL
Dynamic load capacity:	70 % RL
Weight (excl. cable):	approx. 840 g to 940 g
Material:	Stainless steel

Rated Load	Structural Stiffness, nom.	Rated Load	Structural Stiffness, nom.
1 kN	3.0 x 10^6 N/m	8 kN	2.4 x 10^7 N/m
2 kN	6.0 x 10^6 N/m	10 kN	3.0 x 10^7 N/m
4 kN	1.2 x 10^7 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

Wiring:	
Red	+ Supply voltage
Blue	- Supply voltage
Yellow	+ Output signal
Green	- Output signal
Orange	Screen

The load cell is fitted with 2 m of PVC insulated 4 core screened cable type 7-2-4C.

Reverse the signal connections to obtain a positive signal in tension mode.
The screen is not connected to the load cell body.

Ordering Codes

ALF252CF00K0	Compression	ALF252CF00KN	Compression, rationalised
ALF252TF00K0	Tension	ALF252TF00KN	Tension, rationalised
ALF252UF00K0	Bi-directional	ALF252UF00KN	Bi-directional, rationalised

Please add range in the required units.

Safety Note:
When using the load cell in tension mode it is essential to provide additional safety precautions like safety chains etc. for catching the load in a breakage, which cannot be excluded completely.

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

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