



# ALF225



## Description

- 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  $\pm 0.5$  %
- Supply voltage 10 VDC

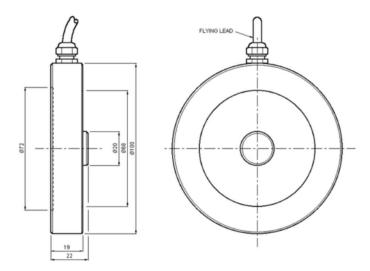
The ultra slim design provides for ease of installation beneath heavy machinery mounts, hydraulic rams or interposed within series mechanical compression assemblies.

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

### Features

- Ultra low profile
- Fail-safe failure mode
- Hardened stainless steel
- IP67 sealing option
- Traceable calibration with certificate

#### Dimensions



Dimensions in "mm", approx. values

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



## Specifications

| 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 ΜΩ                |
| Overload, safe:                           | 150 % RL Overload,    |
| ultimate:                                 | 400 % RL              |
| Dynamic load capacity:                    | 70 % 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 x 10 <sup>10</sup> N/m | 100 kN     | 4.2 x 10 <sup>10</sup> 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 load cell is rationalised the resistors are housed in a capsule located in the load cell cable 100 mm from the free end. Capsule dimensions are Ø10 mm by 57 mm.

#### 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.

The screen is not connected to the load cell body.

## Ordering Codes

| ALF225CFR0H0            | Compression, IP65 | ALF225CFR0HN | Compression, IP65, rationalised |       |
|-------------------------|-------------------|--------------|---------------------------------|-------|
| ALF225CFS0H0            | Compression, IP67 | ALF225CFS0HN | Compression, IP67, rationalised | 2.01  |
| Please add range in the | required units.   |              |                                 | - Rev |

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

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The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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