



FLF218

Column Loadcell

Standard Ranges 10, 20 and 40tonne (100 to 400kN)

- Hardened stainless steel body
- Low profile
- Sealed to IP65
- Bottom or side cable entry
- Standard 2 year warranty

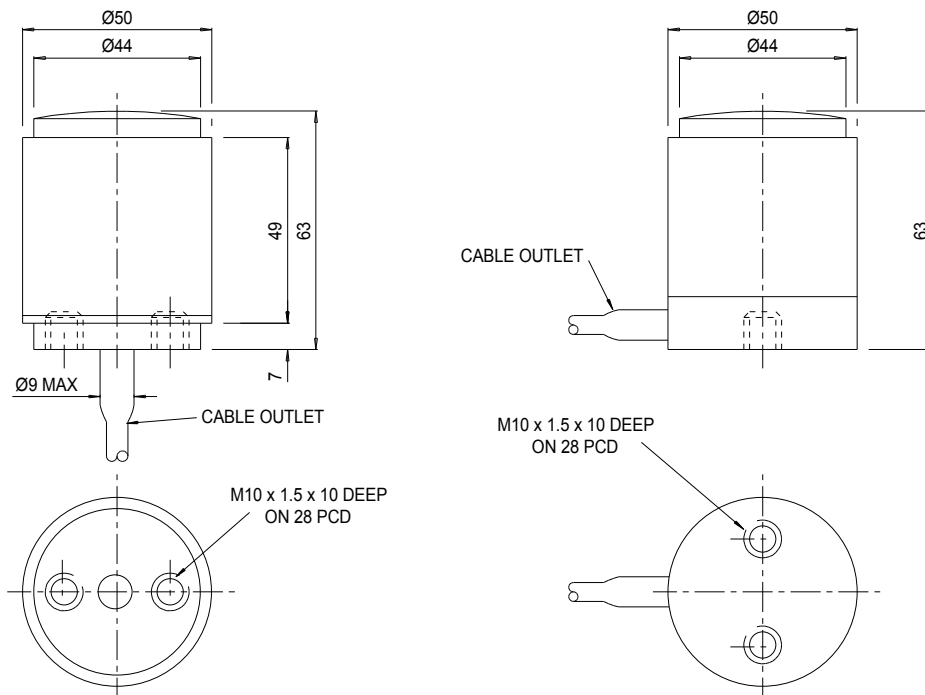


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Geometry: Small column in a sealed case, with a domed top load bearing face. For use in compression.

The FLF218 is ideally suited to engineering force measurements. Its high structural load capacity and the frequency response characteristic of this principle of strain sensing make this loadcell ideal for non-sacrificial impact load measurements.

We are happy to design variants of this loadcell to meet your specific requirements. Versions can be manufactured for fully compensated operation up to +250°C. Please consult our engineering department.



■ Specifications

| Parameter | Value | Unit |
|---|------------|------|
| Non-linearity - Terminal | ±0.5 | % RL |
| Hysteresis | ±0.5 | % RL |
| Creep - 20 minutes | ±0.05 | % AL |
| Repeatability | ±0.02 | % RL |
| Rated output - Nominal | 2.3 | mV/V |
| Rated output - Rationalised | 2.0 | mV/V |
| Rationalisation tolerance | ±0.5 | % RL |
| Zero load output | ±4 | % RL |
| Temperature effect on rated output per °C | ±0.005 | % AL |
| Temperature effect on zero load output per °C | ±0.005 | % RL |
| Temperature range - Compensated | -10 to +50 | °C |
| Temperature range - Safe | -10 to +80 | °C |
| Excitation voltage - Recommended | 10 | V |
| Excitation voltage - Maximum | 20 | V |
| Bridge resistance | 700 | Ω |
| Insulation resistance - Minimum at 50Vdc | 500 | MΩ |
| Overload - Safe | 50 | % RL |
| Overload - Ultimate | 300 | % RL |
| Sealing | IP65 | |
| Weight - Nominal (excluding cable) | 0.75 to 1 | kg |

| Structural stiffness – Nominal | | | | | |
|--------------------------------|-------------------|------------|-------------------|------------|-------------------|
| Range (kN) | Stiffness (N/m) | Range (kN) | Stiffness (N/m) | Range (kN) | Stiffness (N/m) |
| 100 | 1.7×10^9 | 200 | 3.4×10^9 | 400 | 6.8×10^9 |

■ Notes

1. AL = Applied load.
2. RL = Rated load.
3. Temperature coefficients apply over the compensated range.
4. The load must be applied directly through the central loading axis.

■ Connections

The loadcell is fitted with 2 metres of PVC insulated 4 core screened cable type 7-2-4C.

Excitation + = Red
Excitation - = Blue

Signal + = Yellow
Signal - = Green

Screen = Orange

The screen is not connected to the loadcell body.

■ Ordering codes

| | | | |
|---|-----------------------------------|--------------|---------------------------------|
| See the loadcell ordering code sheet for more details. Add range in the required units. | | | |
| FLF218CFR0K0 | Compression, IP65, unrationalised | FLF218CFR0KN | Compression, IP65, rationalised |
| If a non-standard cable length is required add this to the description and change the F to B. | | | |
| If bottom cable entry is required add this to the description and change the F to B. | | | |

LEADERS IN SENSORS & HEAVY DUTY JOYSTICKS

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