

F252 Pancake Loadcell

Standard Ranges 1, 2, 4, 8 and 10kN
(100kgf to 1tonnef)

- ✓ Tension / compression / bi-directional calibration
- ✓ Compact size
- ✓ Low deflection
- ✓ Hardened stainless steel body
- ✓ Traceable calibration with certificate included in the standard price
- ✓ Standard 1 year warranty



Specification

| Parameter | Value | Unit |
|--|------------|------|
| Non-linearity - Terminal | ±0.1 | % RL |
| Hysteresis | ±0.1 | % RL |
| Creep - 20 minutes | ±0.05 | % AL |
| Repeatability | ±0.02 | % RL |
| Rated output - Nominal | 1.6 | mV/V |
| Rated output - Rationalised | 1.5 | mV/V |
| Rationalisation tolerance (applies to single direction calibrations) | ±0.5 | % RL |
| Zero load output | ±4 | % RL |
| Temperature effect on rated output per Â°C | ±0.005 | % AL |
| Temperature effect on zero load output per Â°C | ±0.02 | % 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 up to 400kgf | 350 | Î© |
| above 400kgf | 700 | Î© |
| Insulation resistance - Minimum at 50Vdc | 500 | MÎ© |
| Overload - Safe | 50 | % RL |
| Overload - Ultimate | 100 | % RL |
| Weight - Nominal (excluding cable) | 840 to 940 | g |
| All standard ranges are manufactured in stainless steel. | | |

Geometry: Low profile axial loadcell for use in force measurements in tension and compression.

With bi-directional versions there is a small difference between the output signal for compression and tension. All standard bi-directional loadcells are calibrated in both modes and the output for each direction is stated on the test / calibration certificate. The F252 is ideal for engineering force measurements particularly in applications where there is a limit on the height of the loadcell. It can be used for test machines and a wide range of general industrial applications. 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.

Order Codes

| Code | Description |
|------------|--------------------------------|
| F252CF00K0 | Compression, unrationalised |
| F252TF00K0 | Tension, unrationalised |
| F252UF00K0 | Bi-directional, unrationalised |
| F252CF00KN | Compression, rationalised |
| F252TF00KN | Tension, rationalised |
| F252UF00KN | Bi-directional, rationalised |

Structural Stiffness - Nominal

| Range (kN) | Stiffness (N/m) |
|------------|-----------------------|
| 1 | 3.0 x 10 ⁶ |
| 2 | 6.0 x 10 ⁶ |
| 4 | 1.2 x 10 ⁷ |
| 8 | 2.4 x 10 ⁷ |
| 10 | 3.0 x 10 ⁷ |

Notes

- AL = Applied load.
- RL = Rated load.
- Temperature coefficients apply over the compensated range.
- 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.

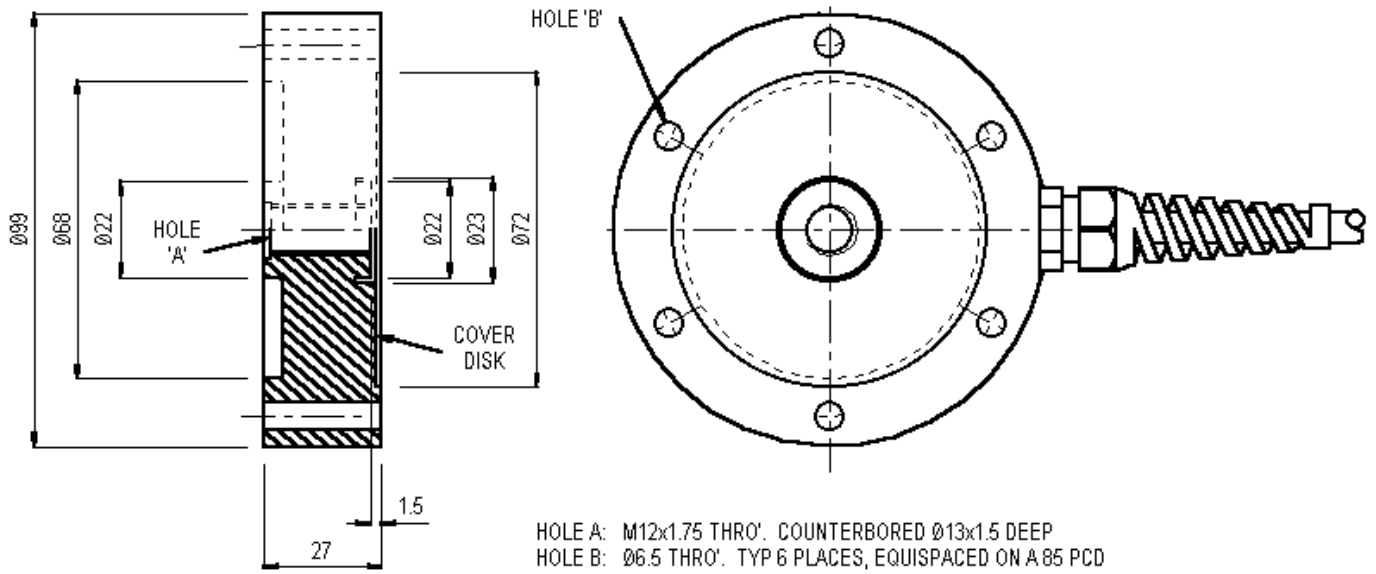
Excitation + = Red, Excitation - = Blue, Signal + = Yellow, Signal - = Green, Screen = Orange.

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

Files

| Type | Title | Download |
|-----------|--------------------------------------|--------------------------|
| STEP File | F252-C/T/U-F00H0 All standard ranges | Download |

Outline



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