

## 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	$\pm 0.1$	% RL
Hysteresis	$\pm 0.1$	% RL
Creep - 20 minutes	$\pm 0.05$	% AL
Repeatability	$\pm 0.02$	% RL
Rated output - Nominal	1.6	mV/V
Rated output - Rationalised	1.5	mV/V
Rationalisation tolerance (applies to single direction calibrations)	$\pm 0.5$	% RL
Zero load output	$\pm 4$	% RL
Temperature effect on rated output per $^{\circ}\text{C}$	$\pm 0.005$	% AL
Temperature effect on zero load output per $^{\circ}\text{C}$	$\pm 0.02$	% RL
Temperature range - Compensated	-10 to +50	$^{\circ}\text{C}$
Temperature range - Safe	-10 to +80	$^{\circ}\text{C}$
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	$3.0 \times 10^6$
2	$6.0 \times 10^6$
4	$1.2 \times 10^7$
8	$2.4 \times 10^7$
10	$3.0 \times 10^7$

## 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.

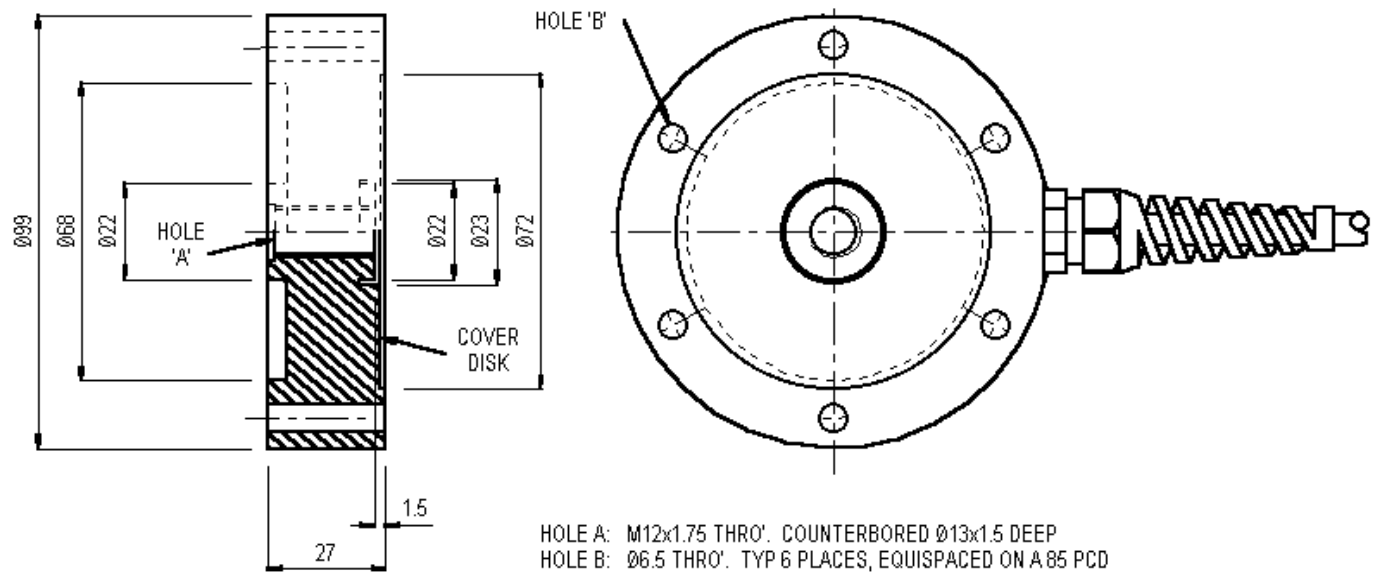
Excitation + = Red, Excitation - = Blue, Signal + = Yellow, Signal - = Green, Screen = Orange.

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	<a href="#">Download</a>

## Outline



### Novatech Measurements Limited

83 Castleham Road, St Leonards on Sea, East Sussex, TN38 9NT, England.

**Telephone:** +44 (0)1424 852744

**Fax:** +44 (0)1424 853002

**E-mail:** [info@novatechloadcells.co.uk](mailto:info@novatechloadcells.co.uk)