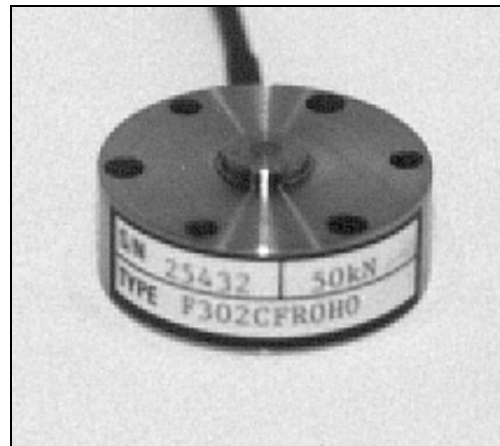


# F302

## Low Profile Diaphragm Loadcell

Standard Ranges 0.5, 1, 2.5 and 5tonne (5 to 50kN)

- ◆ Very low profile
- ◆ Universal fixing
- ◆ Hardened stainless steel
- ◆ Sealed to IP65
- ◆ Standard 2 year warranty



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

The F302 is designed for simple mounting on a smooth flat surface. It has an integral load button and is supplied with three tapped holes and three clearance holes enabling fixing or location from either above or below the loadcell.

In the event of structural failure of the loadcell the resulting vertical movement of the supported load will be very small.

We are happy to design variants of this loadcell to meet your specific requirements. Please consult our engineering department.

Details of our other loadcell families can be found in the Loadcell Specifier Guide. If you require a copy please contact our sales department or look on our web site at [www.novatechloadcells.co.uk](http://www.novatechloadcells.co.uk).

<b>Ordering Codes:</b>	See the loadcell ordering code sheet for more details. Add range in the required units.		
F302CFROHN	Compression, IP65, rationalised		

## F302 Specification

Parameter	Value	Unit
Non-linearity - Terminal	±0.5	% RL
Hysteresis	±0.3	% RL
Creep - 20 minutes	±0.05	% AL
Repeatability	±0.1	% RL
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	10	V
Bridge resistance	350	Ω
Insulation resistance - Minimum at 50Vdc	500	MΩ
Overload - Safe	50	% RL
Overload - Ultimate	300	% RL
Sealing	IP65	
Weight - Nominal (excluding cable)	78 to 90	g

All standard ranges are manufactured in stainless steel.

When this loadcell is rationalised the resistors are housed in a capsule located in the loadcell cable 100mm from the free end. Capsule dimensions are Ø10mm by 57mm.

Structural stiffness - Nominal					
Range (kN)	Stiffness (N/m)	Range (kN)	Stiffness (N/m)	Range (kN)	Stiffness (N/m)
5	$1.0 \times 10^8$	25	$1.1 \times 10^9$		
10	$2.9 \times 10^8$	50	$2.2 \times 10^9$		

### 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 7-1-4C.

Excitation + = Red

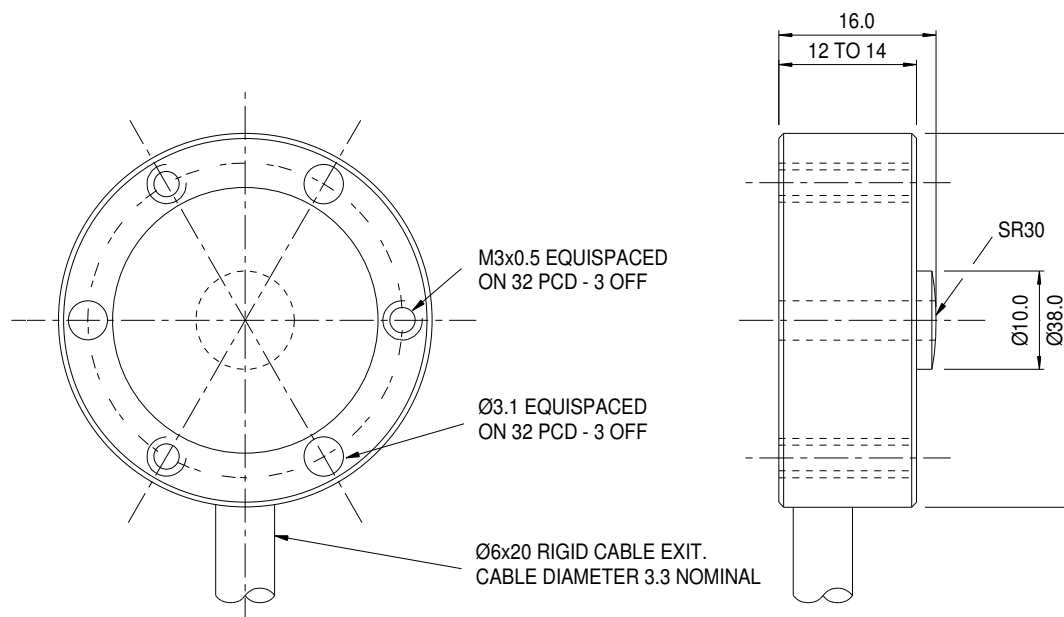
Signal + = Yellow

Screen = Orange

Excitation - = Blue

Signal - = Green

The screen is not connected to the loadcell body.



Novatech reserves the right to vary the foregoing details without prior notice

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