



F303

Low Cost Axial Force Sensor

Standard Ranges 20 and 40kN (2 and 4tonne)

- ◆ Low profile
- ◆ Sealed to IP65
- ◆ Low cost
- ◆ Hardened stainless steel
- ◆ Standard 2 year warranty



The F303 is aimed at the volume OEM user who requires a reliable high quality axial sensor at a low price for low accuracy compressive force measurement in equipment. It is manufactured from stainless steel and sealed to IP65 for long life in typical industrial operating conditions. The sensor is designed for simple mounting on a smooth flat surface.

Each sensor is labelled with its output for full range. A calibration certificate is not supplied as standard.

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

Details of our 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.

Ordering Codes:	See the loadcell ordering code sheet for more details. Add range in the required units.		
F303CFROHO	Compression, IP65, unrationalised	F303CFROHN	Compression, IP65, rationalised

F303 Specification

Parameter	Value	Unit
Non-linearity - Terminal	±2.0	% RL
Hysteresis	±2.0	% RL
Creep - 20 minutes	±0.1	% AL
Repeatability	±0.1	% RL
Rated output - Nominal	2 ±20%	mV/V
Rated output - Rationalised	2.0	mV/V
Rationalisation tolerance	±1	% RL
Zero load output	±6	% RL
Temperature effect on rated output per °C	±0.04	% AL
Temperature effect on zero load output per °C	±0.05	% 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	200	% RL
Sealing	IP65	
Weight - Nominal (excluding cable)	120	g

All standard ranges are manufactured in stainless steel.

When the 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)
20	9.9×10^9	40	2.1×10^{10}		

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

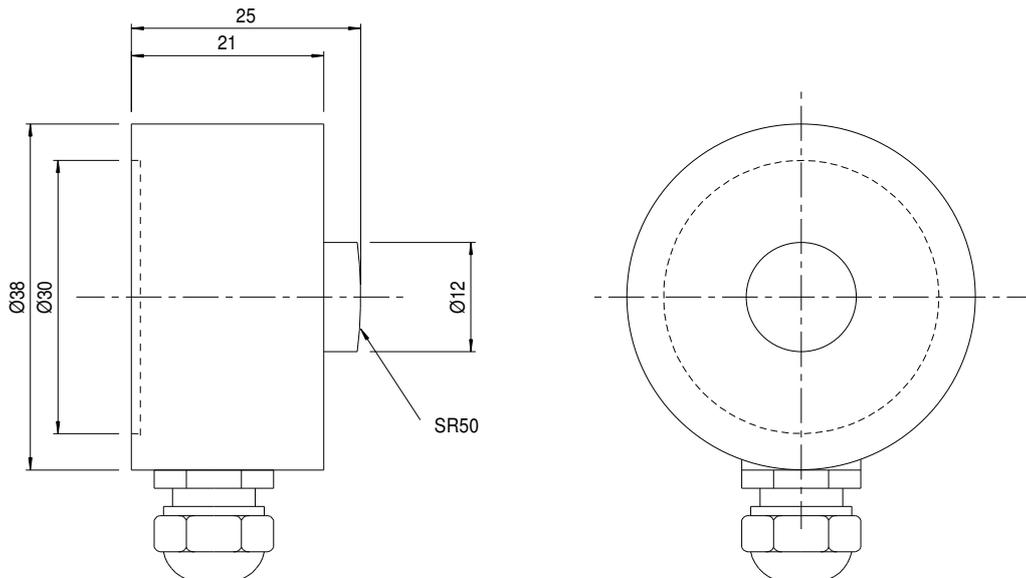
Signal + = Yellow

Screen = Orange

Excitation - = Blue

Signal - = Green

The screen is not connected to the loadcell body.



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