



F329

Deci-Newton Loadcell Standard Range 0.1N (10gf)

- ◆ Low force high resolution loadcell
- ◆ Best resolution 4 microNewton
- ◆ Passive Wheatstone bridge
- ◆ Foil strain gauges
- ◆ High thermal stability
- ◆ Durable design
- ◆ Translational deflection



The F329 is a specialist force measurement device. Due to its finely balanced strain system and delicate structure there are some restrictions with respect to its use that need to be considered:

1. The loadcell's self mass will influence the zero load output upon changes of orientation and with acceleration therefore dynamic applications are limited.
2. The low stiffness characteristic requires the force system to provide enough deflection for the equilibrium deflection to be achieved.

The robust strain system allows judicious application of probes or structure fixings. Input torque to the live force input boss must be minimal, normal frictional torques achieving thread insertion should not be exceeded i.e. thread locking by adhesive is suggested.

We are happy to design variants of this loadcell to meet your specific requirements.

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.

Ordering Codes:		See the loadcell ordering code sheet for more details. Add range in the required units.	
F329CF00A0	Compression, unrationalised	F329TF00A0	Tension, unrationalised
F329UF00A0	Bi-directional, unrationalised		

F329 Specification

Parameter	Value	Unit
Non-linearity - Terminal	±0.2	% RL
Hysteresis	±0.1	% RL
Creep - 20 minutes	±0.2	% AL
Repeatability	±0.025	% RL
Rated output - Nominal	0.35 to 0.55	mV/V
Zero load output (loadcell orientated vertically)	±10	% RL
Temperature effect on rated output per °C	0.005	%AL
Temperature effect on zero load output per °C	0.029	%RL
Temperature range - Compensated	-10 to +50	°C
Temperature range - Safe	-10 to +80	°C
Excitation voltage - Recommended	5	V
Excitation voltage - Maximum	10	V
Resolution - Best	4	µN
Resolution - Recommended for instrumentation	10	µN
Bridge resistance	2500	Ω
Insulation resistance - Minimum at 50Vdc	500	MΩ
Mechanical stiffness	1.3 x 10 ³	N/m
Overload - Safe	50	% RL
Sealing	Unsealed	
Live mass	0.5	g

The standard range is manufactured in aluminium.

Notes

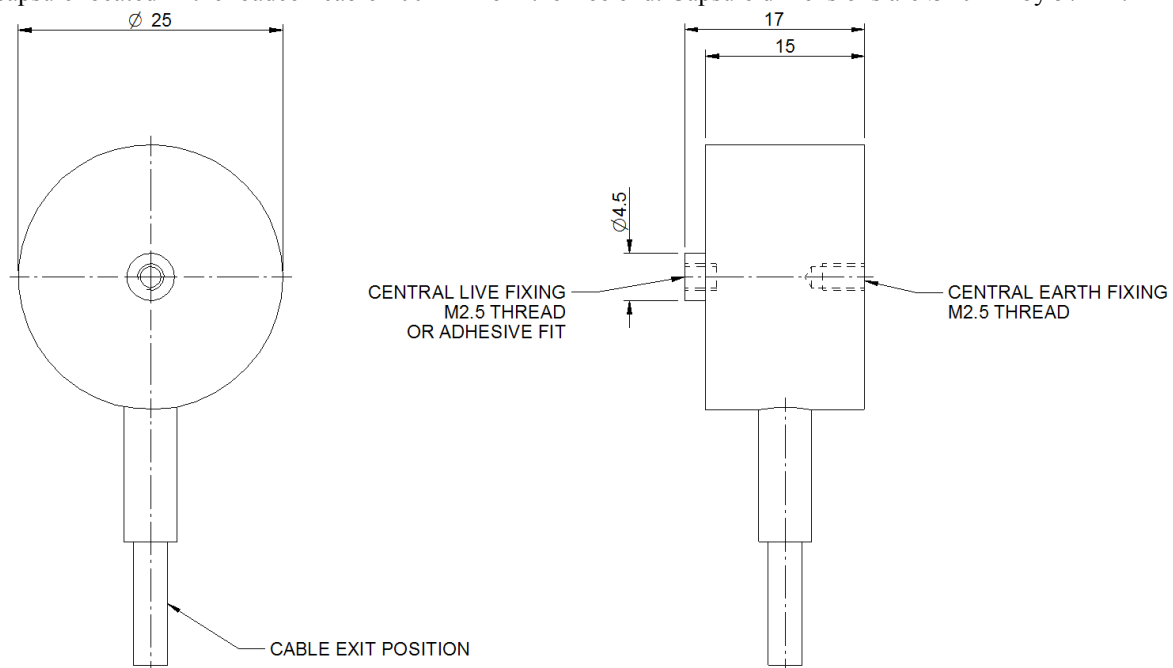
- AL = Applied load.
- RL = Rated load.
- Temperature coefficients apply over the compensated range.
- The load must be applied directly through the central loading axis.
- Tare mass is limited to 25% RL.
- Orientation effects will create errors if the loadcell changes orientation during the measurement process.
- Due to the very low stiffness we advise you to consult our engineering department to discuss the viability of your application for this loadcell.

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. This loadcell has compensation components housed in a capsule located in the loadcell cable 100mm from the free end. Capsule dimensions are Ø10mm by 57mm.



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

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