

F315 Low Range Disc Type Static Torque Transducer

Ranges 10milliNm to 5Nm

- ✓ Custom torque ranges
- ✓ Symmetrical outputs
- ✓ Easy installation
- ✓ Traceable calibration with certificate included in the standard price
- ✓ Standard 1 year warranty



Specification

Parameter	Value	Unit
Non-linearity - Terminal	± 0.05	% RT
Hysteresis	± 0.1	% RT
Creep - 20 minutes	± 0.3	% AT
Repeatability	± 0.05	% RT
Rated output - Nominal (depends on range)	0.2 to 1	mV/V
Zero load output	± 4	% RT
Temperature effect on rated output per $^{\circ}\text{C}$	± 0.005	% AT
Temperature effect on zero load output per $^{\circ}\text{C}$ (1mV/V)	± 0.01	% RT
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	15	V
Bridge resistance	700	$\hat{\Omega}$
Insulation resistance - Minimum at 50Vdc	500	M $\hat{\Omega}$
Overload - Safe	25	% RT

Overload - Ultimate	50	% RT
Weight - Nominal (excluding cable)	110 to 130	g
The standard ranges are manufactured in aluminium.		

Geometry: Slender disc, with outer ring earth fixing and live inner boss usually shaft driven.

This static torque transducer is used extensively in instrumentation and small electric motor test and calibration applications. Torque transmission must be arranged to input only torque as extraneous forces, such as tare loads or axial loads will cause measurement errors. Note we are able to calibrate with extraneous load cases replicated. The highly symmetrical signal outputs are usually between 0.2 and 1mV/V for full range. We are happy to design variants of this transducer to meet your specific requirements. Please consult our engineering department. If you require a higher torque range than 5Nm the F311 is available with ranges up to 2000Nm.

Order Codes

Code	Description
Most F315 loadcells are manufactured to special requirements and are given an F315-Zxxxx number.	

Notes

- AT = Applied torque.
- RT = Rated torque.
- Temperature coefficients apply over the compensated range.
- Avoid applying axial or side loads to the central boss.

Connections

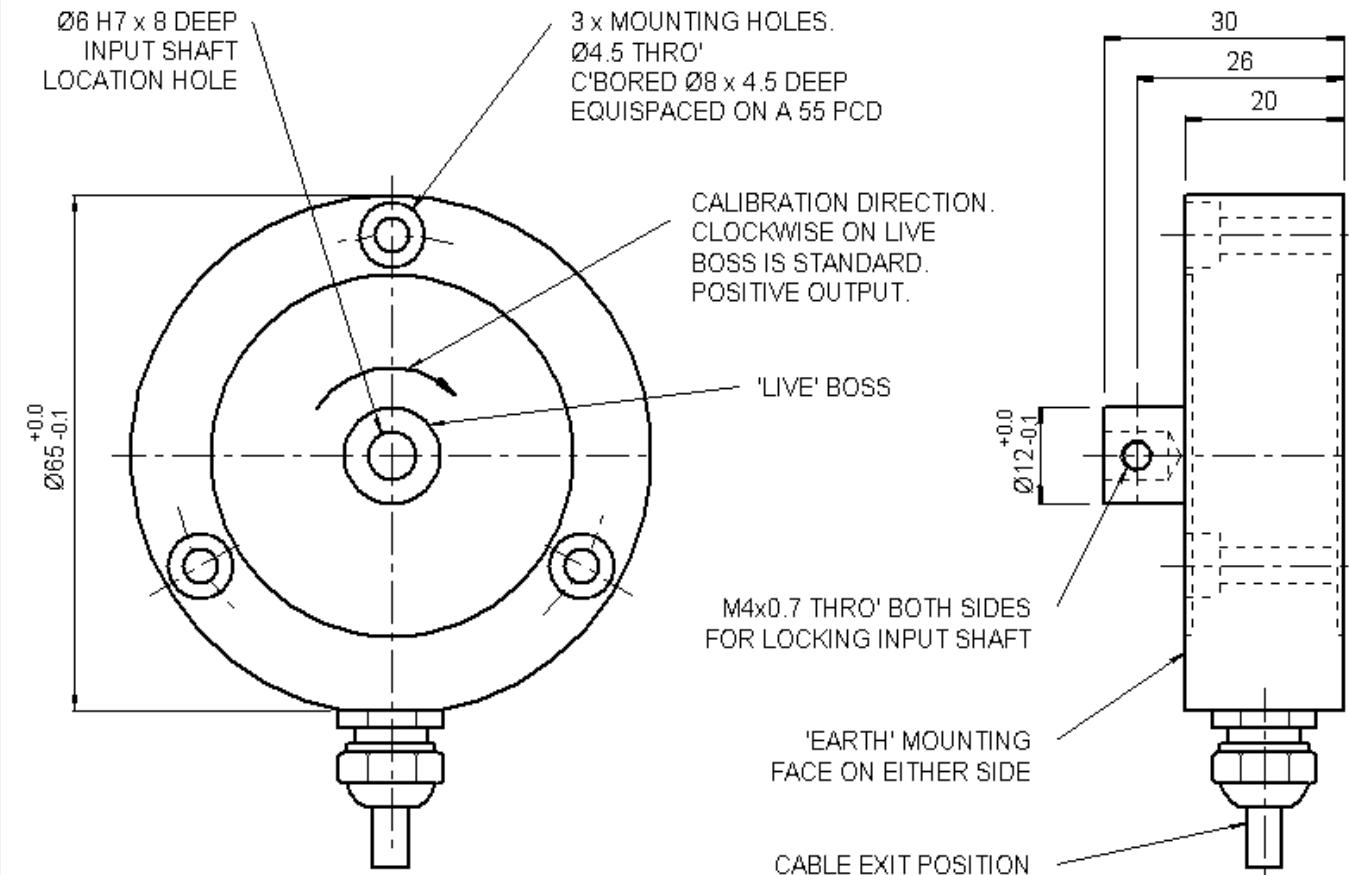
The loadcell is fitted with 2 metres of PVC insulated 4 core screened cable type 7-2-4C.

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

The signal connections are for a positive signal for a clockwise torque on the centre boss. The screen is not connected to the transducer body.

Type	Title	Download
STEP File	F315UF00K0 All standard ranges	Download

Outline



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