Novatech
Loadcell Design & Manufacture

F205 Donut Loadcell

Standard Ranges 1000 and 2000kN (100 and 200tonnef)

- Hardened stainless steel body
- Very high structural load limit
- Standard 1 year warranty
- Tensile applications are 'fail-safe'
- Flying lead or connector option
- Traceable calibration with certificate included in the standard price

Specification

Parameter	Value	Unit
Non-linearity - Terminal	±0.5	% RL
Hysteresis	±0.5	% RL
Creep - 20 minutes	±0.05	% AL
Repeatability	±0.02	% RL
Rated output - Nominal	1.2	mV/V
Rated output - Rationalised	1.0	mV/V
Rationalisation tolerance	±0.5	% RL
Zero load output	±4	% RL
Temperature effect on rated output per Â°C	±0.005	% AL
Temperature effect on zero load output per Â°C	±0.03	% RL
Temperature range - Compensated	-10 to +50	°C
Temperature range - Safe	-10 to +80	°C
Excitation voltage - Recommended	10	V
Excitation voltage - Maximum	20	V
Bridge resistance	700	Î©
Insulation resistance - Minimum at	500	MÎ©

50Vdc		
Overload - Safe	50	% RL
Overload - Ultimate	400	% RL
Sealing	IP65	
Weight - Nominal (excluding cable)	18 to 19	kg
All standard ranges are manufactured in stainless steel.		

Geometry: Axial strain cylinder in a sealed case, with raised end load bearing faces and hole right through. For use in compression or in fail-safe tensile applications.

The F205 is ideally suited to engineering force measurements including through centre safety testing of cables, rods and bolts.It is designed for easy installation, usually between two flat faces bearing on its loading rings, either unattached or with retaining spigots positioned in the centre hole. Alternatively tensile load transfer can be achieved via a tie rod assembly through the centre hole. In this way the loadcell can indirectly measure tensile loads in a "fail-safe" mode.We are happy to design variants of this loadcell to meet your specific requirements. Versions can be manufactured for operation up to +250°C. Please consult our engineering department.

Order Codes

Code	Description
F205CFR0K0	Compression, IP65, unrationalised
F205CFR0KN	Compression, IP65, rationalised

Structural Stiffness - Nominal

Range (kN)	Stiffness (N/m)
1000	1.5 x 1010
2000	3.0 x 1010

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 16-2-4C or a 4 pin Binder 723 series chassis plug.

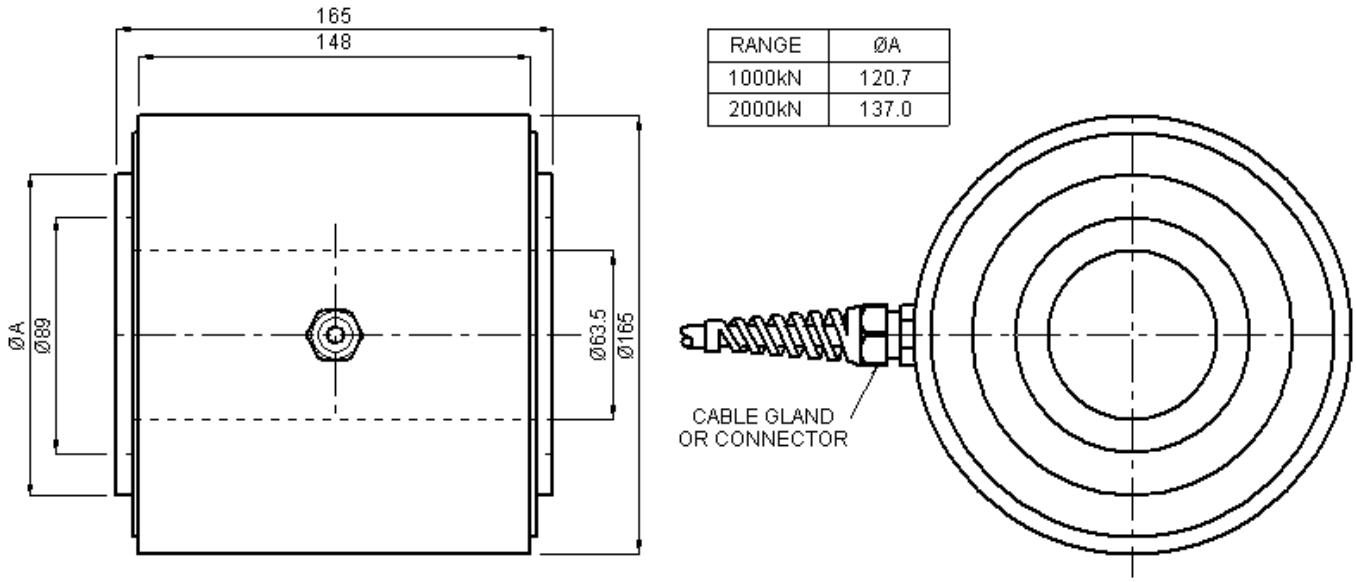
Excitation + = Red or pin 1, Excitation - = Blue or pin 2, Signal + = Yellow or pin 3, Signal - = Green or pin 4, Screen = Orange.

The screen is not connected to the loadcell body.

Files

Type	Title	Download
STEP File	F205CFR0K0 1000kN (100tonnef)	Download
STEP File	F205CFR0K0 2000kN (200tonnef)	Download
STEP File	F205CPR0K0 1000kN (100tonnef)	Download
STEP File	F205CPR0K0 2000kN (200tonnef)	Download

Outline



RANGE	ØA
1000kN	120.7
2000kN	137.0

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