

F216 Loadcell

**Standard Ranges 5, 10, 20 and 40kN
(500kgf to 4tonnef)**

- ✓ Hardened stainless steel body
- ✓ Standard 1 year warranty
- ✓ High mechanical stiffness
- ✓ Flying lead
- ✓ Small size
- ✓ 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 $^{\circ}\text{C}$	± 0.005	% AL
Temperature effect on zero load output per $^{\circ}\text{C}$	± 0.03	% RL
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	20	V
Bridge resistance	700	Ω
Insulation resistance - Minimum at	500	M Ω

50Vdc		
Overload - Safe	50	% RL
Overload - Ultimate	400	% RL
Sealing	IP65	
Weight - Nominal (excluding cable)	90 to 100	g

Geometry: Axial strain cylinder in weather sealed case, with raised end load bearing faces. For use in compression.

The F216 is ideally suited to engineering force measurements. It is designed for easy installation, usually between two flat faces bearing on its loading rings. The small size of this loadcell makes it an ideal force sensor for mounting in existing machinery. It has been used in presses and printing machines. We are happy to design variants of this loadcell to meet your specific requirements. Versions can be manufactured for fully compensated operation up to +250°C. Please consult our engineering department.

Order Codes

Code	Description
F216CFR0K0	Compression, IP65, unrationalised
F216CFR0KN	Compression, IP65, rationalised

Structural Stiffness - Nominal

Range (kN)	Stiffness (N/m)
5	2.4 x 10 ⁸
10	4.8 x 10 ⁸
20	9.6 x 10 ⁸
40	1.9 x 10 ⁹

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 7-2-4C.

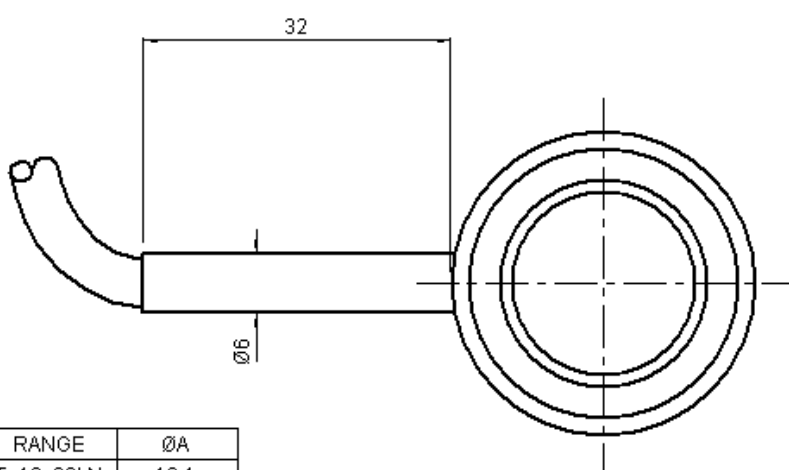
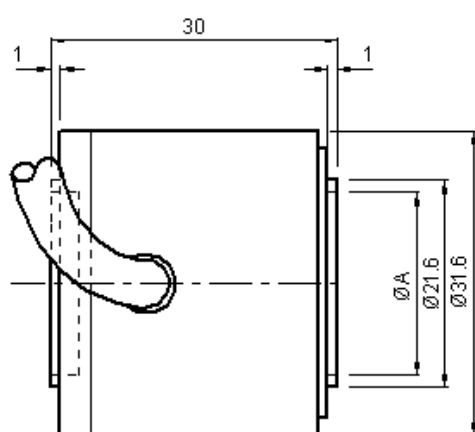
Excitation + = Red, Excitation - = Blue, Signal + = Yellow, Signal - = Green, Screen = Orange.

The screen is not connected to the loadcell body.

Files

Type	Title	Download
STEP File	F216CFR0K0 5 to 20kN (500kgf to 2tonnef)	Download
STEP File	F216CFR0K0 40kN (4tonnef)	Download

Outline



RANGE	ØA
5, 10, 20kN	19.1
40kN	12.5

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