

F327

Canister Loadcell

Standard Ranges 10, 20, 50, 100, 200, 500, 1000 and 2000kN (1 to 200tonne)

- ◆ Low contact pressure
- ◆ Load spreading base
- ◆ Spigot or recess location
- ◆ Sealed to IP67
- ◆ Flying lead or connector option



The F327 is a robust canister loadcell that is ideally suited to compression force measurement applications in harsh conditions. The loadcell is deliberately over engineered to achieve a low contact surface pressure under high loading.

Smaller column type loadcells, such as the F218, are available and we can cover the F327 load ranges with smaller designs. Please consult our engineering department.

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.		
F327CFS0K0	Compression, IP67, unrationalised	F327CFS0KN	Compression, IP67, rationalised
Change the F to a P for the connector version.			

F327 Specification

Parameter	10 to 50kN	100 to 2000kN	Unit
Non-linearity - Terminal	±0.05	±0.1	% RL
Hysteresis	±0.05	±0.4	% RL
Creep - 20 minutes	±0.05	±0.05	% AL
Repeatability (excluding rotational effects) *	±0.02	±0.03	% RL
Rated output - Nominal	1.2	1.2	mV/V
Rated output - Rationalised	1.0	1.0	mV/V
Rationalisation tolerance	±0.5	±0.5	% RL
Zero load output	±4	±4	% RL
Temperature effect on rated output per °C	±0.005	±0.005	% AL
Temperature effect on zero load output per °C	±0.01	±0.01	% RL
Temperature range - Compensated	-10 to +50	-10 to +50	°C
Temperature range - Safe	-10 to +80	-10 to +80	°C
Excitation voltage - Recommended	10	10	V
Excitation voltage - Maximum	20	20	V
Bridge resistance	700	700	Ω
Insulation resistance - Minimum at 50Vdc	500	500	MΩ
Overload - Safe	100	100	% RL
Overload - Ultimate	200	200	% RL
Sealing	IP67	IP67	
Weight - Nominal (excluding cable)	1.6	8 to 28.3	kg

All standard ranges are manufactured in stainless steel.

* Repeatability errors will increase if the loadcell is rotated to ±0.06% of RL.

Structural stiffness - Nominal					
Range (kN)	Stiffness (N/m)	Range (kN)	Stiffness (N/m)	Range (kN)	Stiffness (N/m)
10	2.2×10^8	100	1.6×10^9	1000	8.3×10^9
20	4.3×10^8	200	3.2×10^9	2000	8.7×10^9
50	1.1×10^9	500	8.1×10^9		

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

Excitation + = Red or pin 1

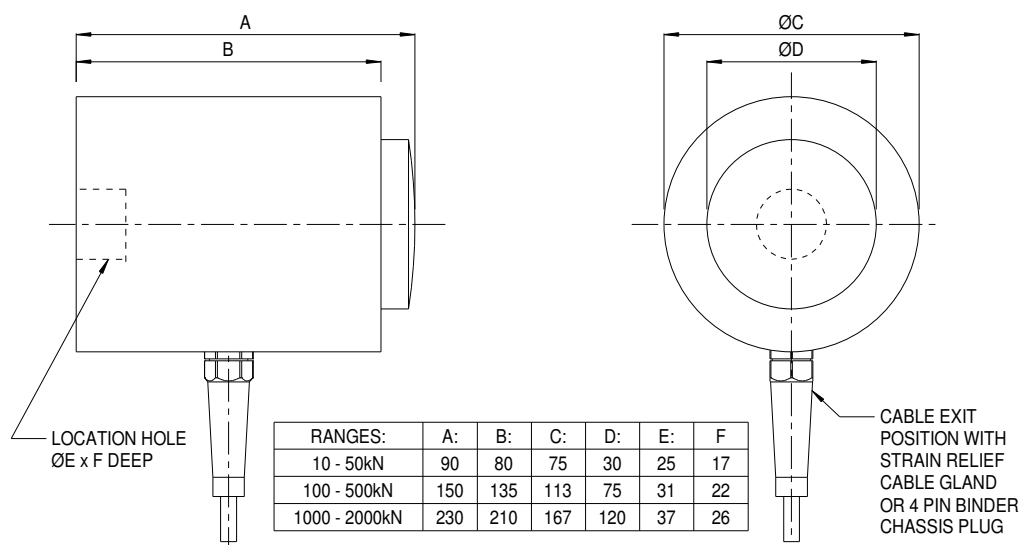
Signal + = Yellow

Screen = Orange

Excitation - = Blue or pin 2

Signal - = Green

The screen is not connected to the loadcell body.



THE 1000 & 2000kN RANGES HAVE REMOVABLE M10 LIFTING EYES FITTED. MAXIMUM PROTRUSION FROM OD IS 35mm.

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

01/2010

NOVATECH MEASUREMENTS LTD

83 CASTLEHAM ROAD, ST LEONARDS ON SEA, EAST SUSSEX, TN38 9NT, ENGLAND

Tel: 01424 852744

email: info@novatechloadcells.co.uk

Fax: 01424 853002

www.novatechloadcells.co.uk