



# FLF214

## Loadstud

### Standard Ranges 1.5, 3 and 6 tonne (15 60 60 kN)

- Hardened stainless steel body
- Compact 'in line' installation
- Small diameter
- Low cost
- Standard 2 year warranty

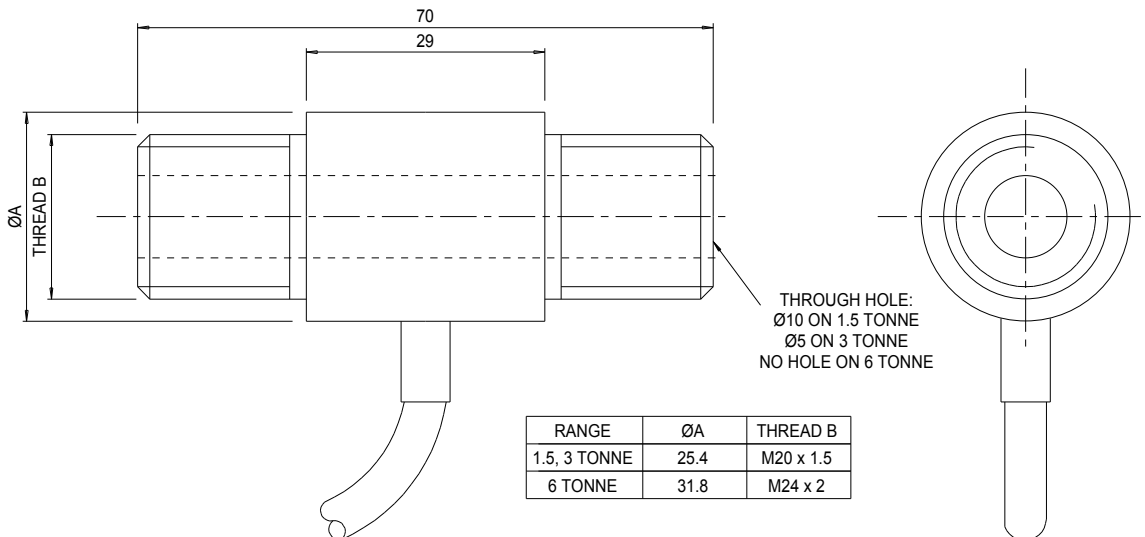


Geometry: Axial strain rod in weather sealed case, with external fixing threads. For use in tension or compression.

With bi-directional versions there is a small difference between the output signal for compression and tension. All standard bi-directional loadcells are calibrated in both modes and the output for each direction is stated on the test / calibration certificate.

The FLF214 is ideally suited to engineering force measurements, particularly with push pull actuator/linkage arrangements where self-alignment and axial force transmission is achieved by hardware design.

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.



## ■ Specifications

Parameter	Value	Unit
Non-linearity - Terminal	±0.1	% RL
Hysteresis	±0.1	% 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 °C	±0.005	% AL
Temperature effect on zero load output per °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	10	V
Bridge resistance	350	Ω
Insulation resistance - Minimum at 50Vdc	500	MΩ
Overload - Safe	50	% RL
Overload - Ultimate	200	% RL
Sealing	IP65	
Weight - Nominal (excluding cable)	140 to 200	g

All standard ranges are manufactured in stainless steel.

When this loadcell is rationalised the resistors are housed in a capsule located in the loadcell cable 100mm from the free end. Capsule dimensions are Ø10mm by 57mm.

Structural stiffness – Nominal					
Range (kN)	Stiffness (N/m)	Range (kN)	Stiffness (N/m)	Range (kN)	Stiffness (N/m)
15	$9.5 \times 10^8$	30	$1.9 \times 10^9$	60	$3.8 \times 10^9$

## ■ Notes

1. AL = Applied load.
2. RL = Rated load.
3. Temperature coefficients apply over the compensated range.
4. 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                      Signal + = Yellow                      Screen = Orange  
 Excitation - = Blue                      Signal - = Green

The screen is not connected to the loadcell body.

## ■ Ordering codes

See the loadcell ordering code sheet for more details. Add range in the required units.			
FLF214CFR0H0	Compression, IP65, unrationalised	FLF214CFR0HN	Compression, IP65, rationalised
FLF214TFR0H0	Tension, IP65, unrationalised	FLF214TFR0HN	Tension, IP65, rationalised
FLF214UFR0H0	Bi-directional, IP65, unrationalised	FLF214UFR0HN	Bi-directional, IP65, rationalised

## ALTHERIS bv

Scheveningseweg 15  
 2517 KS DEN HAAG  
 The Netherlands

☎ +31 (0)70 3924421

☎ +31 (0)70 3644249

Offices in : Benelux | Germany | France | UK | Italy | USA

🌐 www.altheris.com

✉ sales@altheris.nl

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