

Tension/compression force transducer with external thread robust construction for very heavy forces up to 3300 kN

with electrical connection



Description

This load cell is used wherever measurements are to be taken directly in the line of force. The actual tension forces in cables and rods can thus, for example, be measured.

With this load cell, the load is applied via the threaded pins which are located on each side of the cylindrical body. The robust structure of the load cell, which is manufactured from stainless steel, also allows it to be used in extremely harsh industrial atmospheres.

The load cells are splash water protected and function reliably even under difficult service conditions.

Note

In order to avoid overloading, it is advantageous to connect the load cell electrically during installation and to monitor the measured value.

The force to be measured must be applied concentrically and free of transverse force.

Features

- For tension and compression force measurements
- Simple force introduction
- Robust design
- Simple installation
- Protection class IP 67
- Accuracy 0.2% of full scale value
- Connector

Measuring ranges

- 10 kN ... 3300 kN

Applications

- Plant engineering
- Production lines
- Measurement and monitoring facilities
- Special equipment and machinery construction
- Test benches and production lines
- Rope tension testing

Options

- Load input elements
- Built-in amplifier
- Extended compensated temperature range
- Different thread sizes
- Integral cable
- Different bridge resistance
- Connector guard

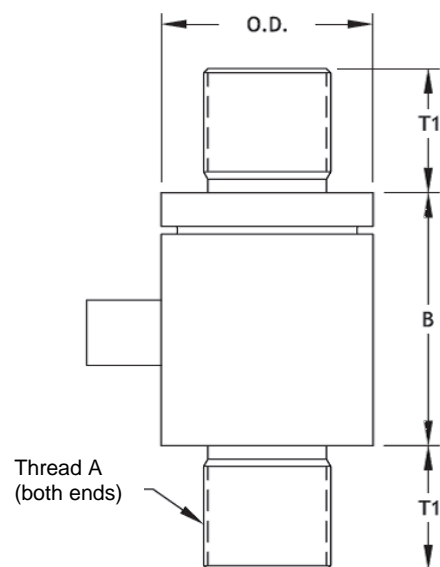
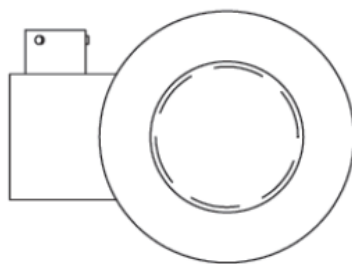
Model: F2226

Technical data

Model	F2226		Options
Nominal load in kN	10, 20, 30, 40, 50, 75, 100, 200	300, 500, 1000, 1500, 2000, 2200, 3000, 3300	
Limit load	150% F_{nom}		
Breaking load	>300% F_{nom}		
Non-linearity	$\leq \pm 0.15\%$ of F.S.	$\leq \pm 0.20\%$ of F.S.	
Hysteresis	$\leq \pm 0.15\%$ of F.S.	$\leq \pm 0.20\%$ of F.S.	
Repeat accuracy	$\leq \pm 0.05\%$ of F.S.	$\leq \pm 0.05\%$ of F.S.	
Max. dynamic load	$\pm 70\% F_{nom}$ acc. to DIN 50 100		
Creep, 30 min. at F_{nom}	$\leq \pm 0.1\%$ of F.S.		
Nominal deflection	<0.4 mm		
Nominal temperature range	+15 ... +71°C		extended
Storage temperature range	-54 ... +121°C		temperature ranges
Temperature influence	-span -zero	< $\pm 0.05\%$ reading / 10K < $\pm 0.05\%$ of F.S. / 10K	
Protection type (acc. to EN 60529/IEC 529)	IP 67		
Insulation resistance	> 2 G Ω		
Analogue output	2 mV/V 350 Ω Integrated or cable integrated amplifier 0 (4) ... 20 mA 0 ... 10 V DC < $\pm 20\%$ of F.S. < $\pm 1\%$ of F.S. 2 ... 12 V (max. 15 V), 12 ... 28 V DC for (cable) integrated amplifier		
- Output signal			
- Bridge resistance			
- Option			
- Tolerance of span			
- Tolerance of zero point signal			
- Excitation voltage			
- Electrical connection	connection plug 6-pol connection		cable connection
Material of measuring device	Stainless steel		

of F.S. = full scale value

Dimensions



Capacity [kN]	Dimensions in [mm]			
	Thread A	B	T1	Ø O.D.
10 / 20	M 16 x 2	66.0	24.1	38.1
30 / 40 / 50	M 20 x 1.5	66.0	24.1	44.4
75	M 24 x 2	66.0	31.8	44.4
100	M 30 x 2	77.5	38.1	63.5
200	M 45 x 3	77.5	38.1	63.5
300	M 56 x 4	77.5	76.2	88.9
500	M 56 x 4	77.5	76.2	88.9
1000	M 100 x 3	139.7	101.6	114.3
1500	M 100 x 3	139.7	114.3	127.0
2000 / 2200	M 120 x 4	146.1	127.0	139.7
3000 / 3300	M150 x 4	139.7	171.5	168.4

Electr. Connection	
Supply. (-)	PIN C & D
Supply. (+)	PIN A & B
Signal (+)	PIN E
Signal (-)	PIN F

Subject to technical changes