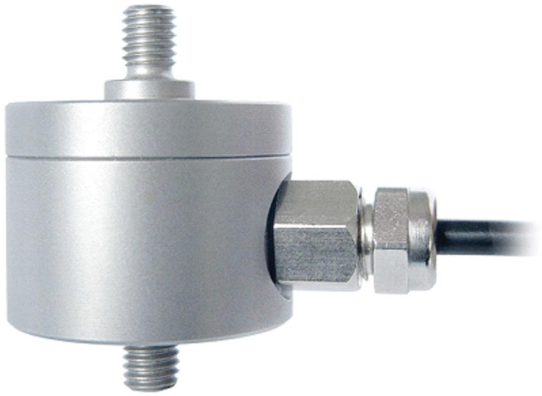
Tension/compression force transducer with external thread for small measuring ranges



Description

This force transducer is widely used where it is necessary to measure directly in the force line. It is possible, for example, to measure the actual force in ropes and rods.

The force applied to this force transducer is through threaded bolts, which are located on each side of the cylindrical body. Due to the robust construction of the force transducer it is made of stainless steel and can be used in an industrial atmosphere.

The force transducer is splash proof and works reliably under difficult conditions.

Note

To prevent overload, it is advantageous to connect up the transducer electrically during installation and to monitor the measured value.

The force must be applied at the centre and without radial stress.

Features

- rust-resistant stainless steel
- Protection type IP 67
- Stainless steel version for high dynamic loads

Measuring range

- 100...2000 N

Application

- Plant engineering
- Production lines
- Measurement and monitoring facilities
- Special equipment and machinery construction
- Cable force measurements

Specific information

- Calibration control: 100% signal (option)

Model: F2214

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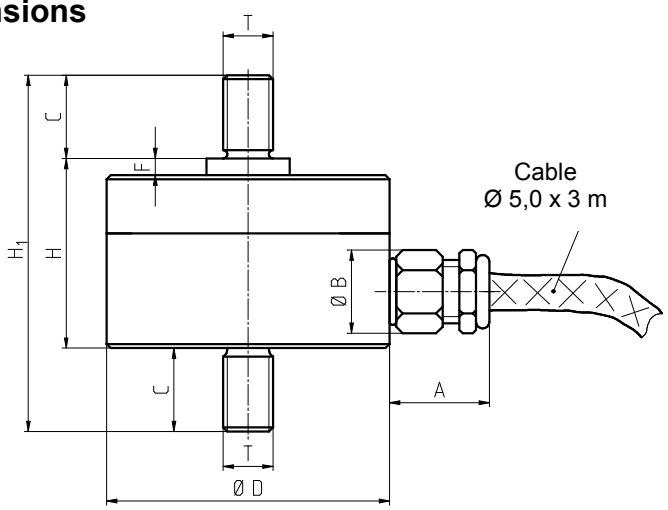
Technical data

Model	F2214	Optionen
Nominal load F_{nom}	**100, 200, 500, 1000, 2000 N**	
Accuray class compression, tension tension and compression	0.15% of F.S. 0.3% of F.S.	
Limit load	150% F_{nom}	
Breaking load	> 300% F_{nom}	
Combined error	≤± 0.3% of F.S. ≤± 0.15% of F.S., for either tension or compression force	
Max. dynamic load	±70% F_{nom} acc. to DIN 50 100	
Creep, 30 min. at F_{nom}	≤± 0.2% of. F.S.	
Deflection	<0.15 mm	
Nominal temperature range	-10 … +65°C	
Service temperature range	-30 … +80°C	
Storage temperature range	-50 … +90°C	
Reference temperature	23°C	
Temperature effect Span Zero	≤±0.05% of F.S./10K ≤±0.05% of F.S./10K	
Protection type (acc. to EN 60 529 / IEC 529)	IP 67	
Insulation resistance	> 2*GΩ	
Variability	0.02%	
Analogue output - Output signal - Bridge resistance - Option - Tolerance of span - Exicitation voltage - Electrical connection	 2 mV/V 350 Ω Cable integrated amplifier 0 (4) … 20 mA, 0 … 10 V DC ≤±10% of F.S. 2 … 12 V (max. 15 V), 16 … 32 V DC for cable integrated amplifier Cable 3 m / 4-wire	 6-pol conection
Calibration control		100% signal
Material of measuring device	Stainless steel	
Weight (N) - 100, 200 - 500 - 1000 - 2000	 0,1 kg 0,11 kg 0,16 kg 0,24 kg	

of F.S. = full scale value

When ordering please quote the required measuring range!

Dimensions



Electrical connection	
Supply (-)	green
Supply (+)	brown
Sign. (+)	yellow
Sign. (-)	white
Control	grey
Screen	screen

Nominal load [N]	A	ØB	C	ØD	F	H	H_1	T
100, 200, 500	10	10	6,4	25	2	21	33,8	M5
1000	10	10	8	32	2	23	39	M6
2000	14	10	10	38	2	28	48	M6

Subject to technical changes