

Miniature Bending Beam for forces from 0.25 N

with electrical output



Description

Miniature force transducers are especially designed to have small dimensions. Because of their compactness, these force transducers can be used in a wide range of industrial and laboratory applications.

They are designed for the measurement of tension and compression forces in the range between 0,25 N and 50 N.

The field of application of this force transducer lies in innumerable applications where simple installation is a very important factor.

The miniature force transducer is mounted on the cable side. The force introduction takes place at the opposite side, vertically to the load cell axis via the provided through-hole.

Note

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

A mechanical overload prevention is integrated.

Features

- For tension or compression force measurements
- With integrated overload protection
- Simple force introduction
- Compact small dimensions
- Ease of assembly
- Protection class IP 65
- Combined error 0.1% of F.S.

Measuring ranges

- 0.25 N ... 50 N

Applications

- Construction of plant and apparatus
- Monitoring of press-in, plug and extraction forces
- Tension force measuring at spooling devices
- Measurement and inspection equipment
- Test benches

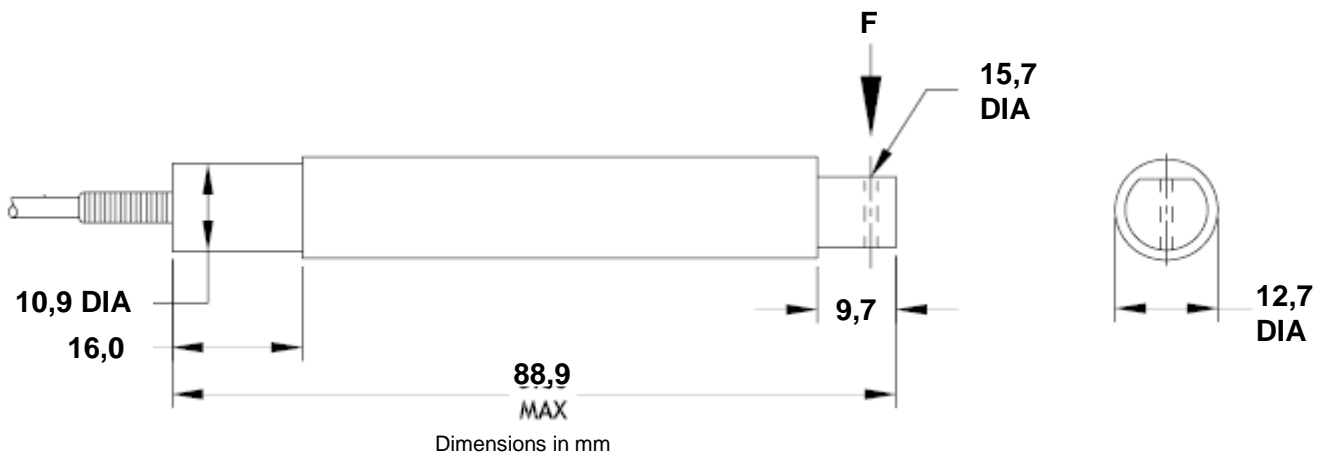
Model: F3223

Technical data

Model	F3223		Options
Nominal load F_{nom} in N	0.25; 10	1.5; 50	
Combined error	±0.10% of F.S.		
Limit load	500% F_{nom}	300% F_{nom}	
Max. dynamic load	±50% F_{nom} DIN 50 100		
Nominal deflection	< 0.15 mm		
Nominal temperature range	+15 ... +70°C		
Service temperature range	-20 ... +80°C		
Reference temperature	23°C		
Temperature effect	-span -zero	≤±0.2% of F.S./10K ≤±0.15% of F.S./10K	≤±0.05% of F.S./10K ≤±0.05% of F.S./10K
Protection type (acc. to EN 60 529/IEC 529)	IP 20		
Insulation resistance	>5 GΩ bei 50V		
Analogue output	20 mV/V 500 Ω (semiconductor strain gauge)	2 mV/V 350 Ω	
- Output signal	Cable integrated amplifier 0 (4) ... 20 mA, 0 ... 10 V DC		
- Bridge resistance	5 (max. 5 V); 24 V DC for cable integrated amplifier		
- Option	Cable 1,5 m, open wires, 4-wire		
- Power requirement			
- Electrical connection			
Material of measuring device	Stainless steel 17-4PH		
Weight (incl. cable)	70 g		

of F.S. = full scale value

Dimensions



Electrical connection	
Supply. (-)	black
Supply. (+)	red
Sign. (+)	white
Sign. (-)	green

Subject to technical changes