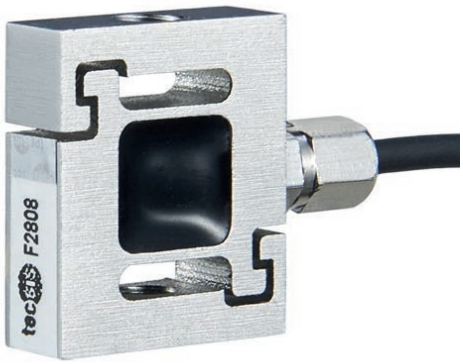
Miniature tension/compression force transducer
Up to 2,000 N
Typ F2808

Applications

- Tension/compression force testing
- Tank weighing
- Load monitoring in industrial plants
- Riveting machine
- Welding machine

Special features

- Measuring ranges 0 … 5 N up to 0 ... 2,000 N
- Overload protection
- Ultracompact
- Stainless steel



Tension/compression force transducer, model F2808

Description

Miniature tension/Compression force transducers are designed for static and dynamic measurement tasks in the direct flux of force. They determine the tension and compression forces in a wide scope of applications.

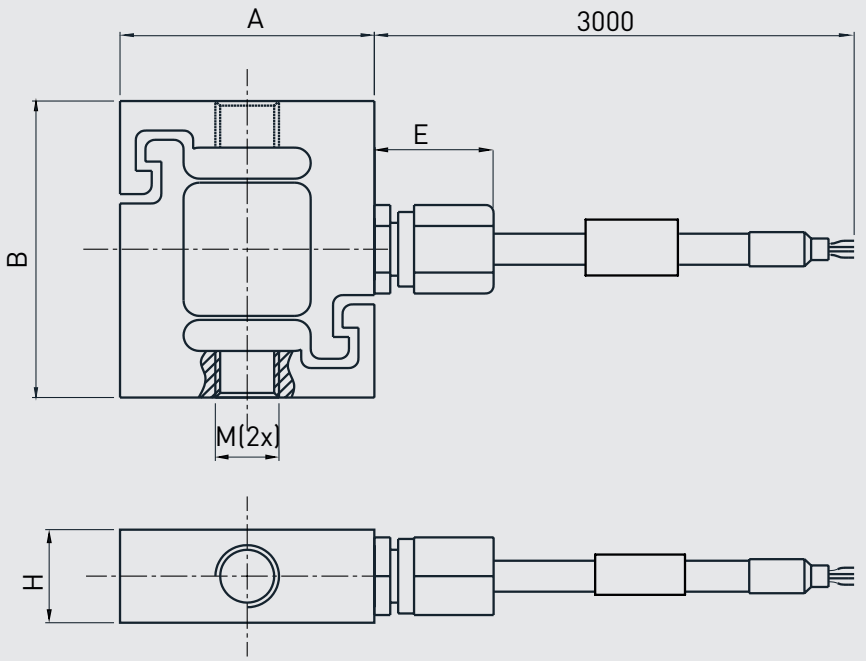
These force transducers are used in test engineering as well as in industrial applications where simple installation and a favourable price play a decisive role.

Note
In order to avoid overloading, it is advantageous to connect the force transducer electrically during installation and to monitor the measured value. The force to be measured must be applied concentrically and free of transverse force. The force transducers are to be mounted on a level surface.

Specifications in accordance with VDI/VDE/DKD 2638

Model F2808	
Rated force F_{nom} N	5 / 10 / 20 / 50 / 100 / 200 / 250 / 300 / 500 / 1,000 / 2,000
Relative linearity error d_{lin}	± 0.15 % F_{nom}
Relative creep, 30 min.	±0.1 % F_{nom}
Relative reversibility v	±0.1 % F_{nom}
Relative repeatability error in unchanged mounting position b_{rg}	±0.1 % F_{nom}
Relative deviation of zero signal $d_{S, 0}$	±2 % F_{nom}
Force limit F_L	150 % F_{nom}
Breaking force F_B	300 % F_{nom}
Material	Stainless steel
Rated temperature range $B_{T, nom}$	-10 … +60 °C
Operating temperature range $B_{T, G}$	-20 … +80 °C
Input resistance R_e	380 ± 30 Ω
Output resistance R_a	380 ± 30 Ω
Insulation resistance R_{is}	≥ 5,000 MΩ/DC 100 V
Output signal (rated output) C_{nom}	
5 N	1.5 ± 10 % mV/V
≥ 10 N	2.0 ± 10 % mV/V
Electrical connection	
M3, M4	Cable Ø2 x 3,000 mm
M8	Cable Ø3 x 3,000 mm
Rated range of excitation voltage $B_{U, nom}$	DC 5 V (max. 10 V)
Protection (acc. to IEC/EN 60529)	IP66
Weight in kg	0.1

Dimensions in mm



Note:
The cable will be Ø2 for M3 M4 force transducer, equipped with M4 compression nut.
The cable will be Ø3 for M8 force transducer, equipped with M6 compression nut.

Rated force in N	Dimensions in mm				
	M	H	A	B	E
5 / 10 / 20	M3	6	16	19.1	7.5
50 / 100 / 200 / 300 / 500	M4	6	16	19.1	13
250 / 300 / 500 / 1,000 / 2,000	M8	14	26	40	13

Pin assignment

Electrical connection	
Excitation voltage (+)	Red
Excitation voltage (-)	Black
Signal (+)	Green
Signal (-)	White
Screen ⏚	Screen