A division of the WIKA Group

Tension/compression force transducer Miniature, 0...5 N up to 0...2,000 N Model F2808

Applications

- Pull and push dynamometer
- Hopper scale
- Industrial measuring systems
- Riveting machine
- Welding machine

Special features

- Measurement ranges 0...5 N up to 0...2,000 N
- Tension and compression force transducer with metal foil strain gauge technology and overload protection
- Ultracompact build size
- Stainless steel

Description

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.

Due to their simple installation, the force transducers of this series are used in test technology and countless industrial applications.

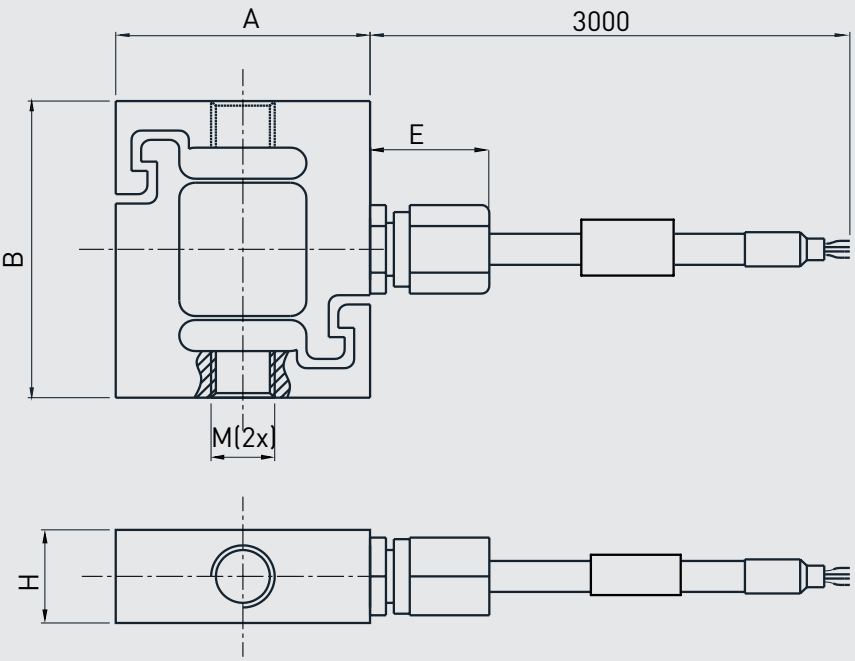
Note
In order to avoid overloading, it is advantageous to connect the force transducer electrically during installation and to monitor the measured value.

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 series	Symbol	Unit	F2808					
Measurement range								
Rated force	F_{nom}	**N**	5	10	20	50	100	200
			250	300	500	1,000	2,000	
Accuracy and stability								
Relative linearity error	d_{lin}	**x%F_{nom}**	0.15					
Relative reversibility error	**v**	**x%F_{nom}**	0.1					
Relative repeatability error in unchanged mounting position	b_{rg}	**x%F_{nom}**	0.1					
Relative deviation of zero signal	$d_{S, 0}$	**x%F_{nom}**	±2					
Relative creep, 30 min.		**x%F_{nom}**	0.1					
Mechanical characteristics								
Force limit	F_L	**x%F_{nom}**	150					
Breaking force	F_B	**x%F_{nom}**	300					
Material			Stainless steel					
Temperature ranges								
Rated temperature range	$B_{T, nom}$	**°C**	-10...60					
Operating temperature range	$B_{T, G}$	**°C**	-20...80					
Electrical characteristics								
Output signal (rated output)	C_{nom}	**mV/V**	2					
Input resistance	R_e	Ω	350 ± 30					
Output resistance	R_a	Ω	350 ± 5					
Insulation resistance	R_{is}	**GΩ**	> 5/100 VDC					
Recommended excitation voltage		**V**	10					
Maximum excitation voltage		**V**	15					
Electrical connection			Cable Ø2 x 3,000 mm (M3, M4), cable Ø2 x 3,000 mm (M8)					
General data								
Protection (acc. to EN/IEC 60529)			IP66					
Weight		**kg**	0.1					

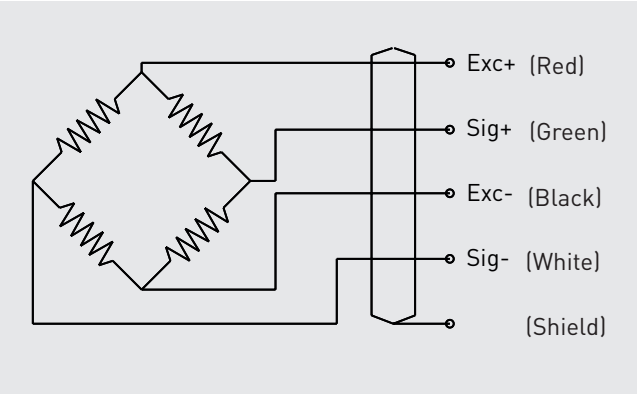
Dimensions in mm



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

	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

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