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Miniature Load Cell *F13N*

Features

- Miniature load cell for tensile and compressive loads
- Material: stainless steel sensor body
- Nominal load: 50 - 500 kg
- Mounting: Force transmission by means of 2 x 8 mm external thread M6 / M8
- Construction: The measuring element is potted, protection class: IP65
- Low dead weight
- Easy handling

Scope of application:

- Handling equipment
- Toolmaking
- Special machine construction
- Laboratory and production
- Tensile and compressive force measurements in the smallest of spaces
- Robotics and automation applications
- Measuring and control equipment

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Miniature Load Cell *F13N*

Miniature force transducer for force measurement

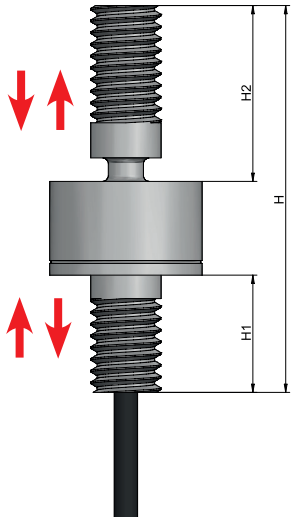
The F13N is a stainless steel force sensor / force transducer in miniature format. The compact sensor is manufactured with proprietary strain gauge technology and is designed for several nominal loads / nominal forces (500 kN - 5000 kN => 50 - 500 kg). It can be calibrated in kilograms or newtons. If it is calibrated in Newton, for example, the F13N can be used as a miniature tensile force transducer.

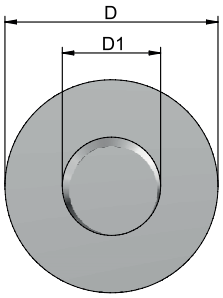
The load is applied centrically and axially via the two opposite threaded connections. It must be ensured that no torsional or bending moments act on the sensor axis.
The measuring body is made of stainless steel, the strain gauge is encapsulated and meets the requirements of protection class IP65.

TECHNICAL DETAILS

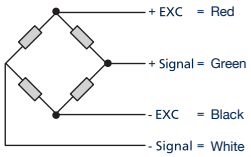
Accuracy class according to OIML R 60		G3
Nominal load (E_{max})	kg	50, 100, 200, 500
Number of division values (n_{LC})		3000
Nominal value (C_n) / Characteristic tolerance	mV/V	1,5
Characteristic tolerance:	mV/V	± 0,03
Minimum preload (E_{min})		0
Limit load (E_L) **Breaking load (E_d)**	% from Emax	120 200
Recommended supply voltage (U_{ref}) **Maximum permissible supply voltage (B_U)**	V	2.5 - 5 15
Zero adjustment	% v. C_n	≤ ± 3 %
Input resistance (R_{LC}) at reference temperature **Output resistance (R_O) at reference temperature**	Ω	350 ± 10 350 ± 5
Insulation resistance	MΩ	> 5 000
Nominal temperature range (B_T)	°C	- 10 ... + 40
Protection class according to (DIN 40.050 / EN 60529)		IP65
Material		Stainless steel

TECHNICAL DRAWINGS





4-conductor-cable



Load	H	H1	H2	D	D1
50 – 100 kg	33	10	15	13	M6
200 – 500 kg	33	10	10	13	M8

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