

Tension/compression load cell, S-type up to 50 kN

Model F2211



WIKA Data sheet FO 51.15

Applications

- Plant engineering
- Production lines
- Measurement and monitoring facilities
- Special equipment and machinery construction
- Test benches and production lines

Features

- Simple force introduction
- Robust design
- Simple installation
- Protection class IP65 or IP67
- Accuracy 0.1% of fullscale value



Tension/compression load cell, model F2211

Description

The range of applications for this load cell covers both weighing technology and countless industrial applications where high accuracy, simple installation with a large contact surface and an inexpensive price play a decisive role.

In such conditions, this load cell provides ideal conditions in the measuring ranges from 0 ... 0.02 kN bis 0 ... 50 kN, and can be used for tension and compression force measurements.

These load cells are splash water protected and function reliably even under difficult service conditions.

Note

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

The force to be measured must be applied concentrically and free of transverse force. The load cells are to be mounted on a level surface.

Specific information

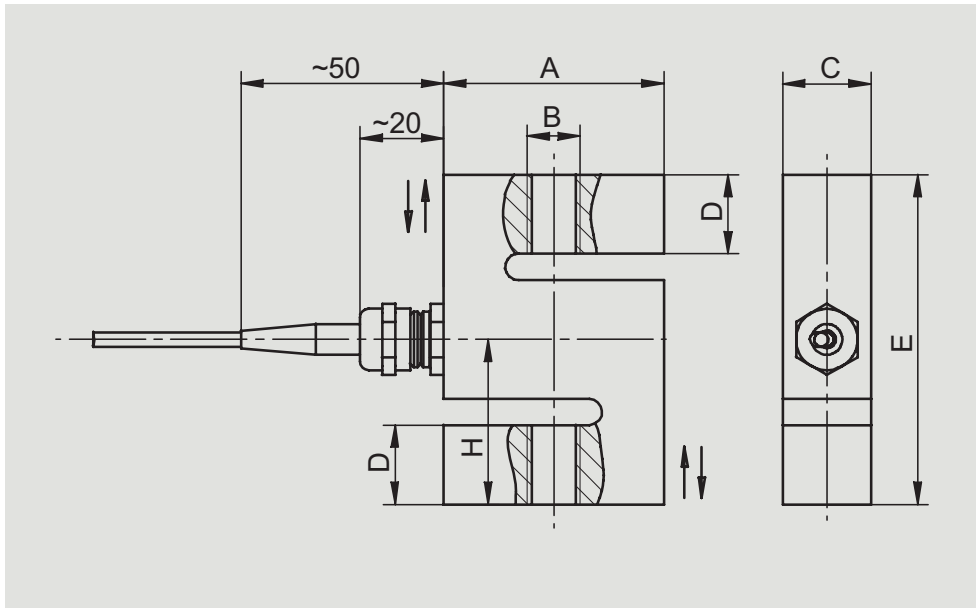
Calibration control: 100 % signal (optional)
Load input elements available (optional)

Technical data in accordance with VDI/VDE/DKD 2638

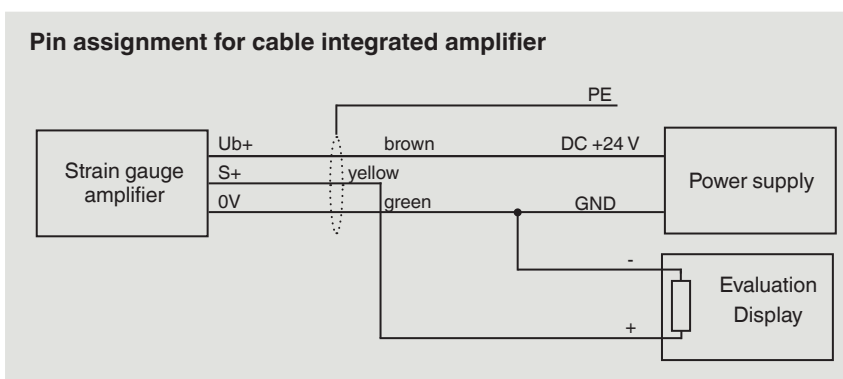
Model	F2211										
Rated force F_{nom} in kN	0.02	0.05	0.1	0.2	0.5	1	2	5	10	20	50
kg	2	5	10	20	50	100	200	500	1,000	2,000	5,000
Force limit F_L	150 % F_{nom}										
Breaking force F_B	> 300 % F_{nom}										
Relative linearity error d_{lin}	$\leq \pm 0.2$ % of F.S. (optional $\leq \pm 0.1$ % of F.S. for either tension and compression force)										
Permissible oscillation stress F_{rb}	± 70 % F_{nom} in accordance with DIN 50100										
Relative creep, 30 min. at F_{nom}	$\leq \pm 0.07$ % of F.S. (optional $\leq \pm 0.04$ % of F.S.)										
Nominal deflection s_{nom}	< 0.15 mm										
Rated temperature $B_{T, nom}$	-10 ... +70 °C										
Operating temperature $B_{T, G}$	-30 ... +85 °C										
Storage temperature $B_{T, S}$	-50 ... +90 °C										
Reference temperature T_{ref}	23 °C										
Temperature effect on											
■ characteristic value TK_C	< ± 0.12 % of F.S./10K (optional $\leq \pm 0.08$ % of F.S./10K)										
■ zero signal TK_0	< ± 0.04 % of F.S./10K (optional $\leq \pm 0.025$ % of F.S./10K)										
Protection type	Up to 1 kN: IP65 in accordance with EN/IEC 60529 From 1 kN: IP67 in accordance with EN/IEC 60529										
Insulation resistance R_{is}	> 2 G Ω										
Lateral force limit F_Q	60 % of nominal value										
Analogue output											
■ Output signal (characteristic value) C	2 mV/V (1 mV/V to 0,02 kN)										
■ Input-/output resistance R_e/R_a	350 Ω										
■ Optional	Cable integrated amplifier 0 (4) ... 20 mA, DC 0 ... 10 V										
■ Relative error of characteristic value d_C	$\leq \pm 0.1$ % of F.S.										
■ Supply voltage	2 ... 12 V (max. 15 V), DC 12 ... 28 V for cable integrated amplifier										
■ Electrical connection	Cable 3 m/4-wire										
Calibration control	(Optional 100 % signal)										
Overload protection	(Optional for tension- and compression force measurement)										
Mounting equipment	(Optional)										
Material of measuring device	Aluminium						Stainless steel				
Weight (kN) in kg	0.25		0.30			0.57		0.65	1.45	1.5	

of F.S. = full scale value

Dimensions in mm



Dimensions in mm	Measuring range in kN										
	0.02	0.05	0.1	0.2	0.5	1	2	5	10	20	50
A	50										65
B	M12										M24 x 2
C	20										39.5
D	18										22
E	75										85
H	37.5										42.5



Electr. connection	
Vers. (-)	Green
Vers. (+)	Brown
Sign. (+)	Yellow
Sign. (-)	White
Control	Grey
Screen ⊕	Screen

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We reserve the right to make modifications to the specifications and materials.

