

Miniature compression load cell from 1 kN Model F1224



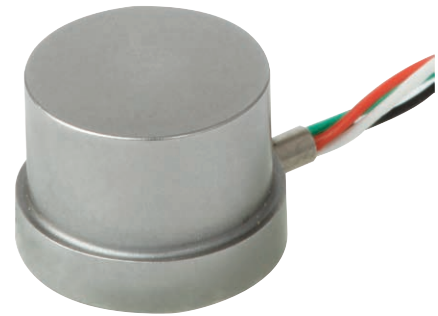
WIKA Data sheet FO 51.12

Applications

- Construction of plant and apparatus
- Control of press-in and punching forces
- Measurement and inspection equipment
- Test benches

Special features

- For compression force measurements
- Simple force introduction
- Compact small dimensions
- Protection class IP65
- Combined error 1 % of F.S.



Miniature compression load cell, model F1224

Description

Miniature compression load cells are especially designed to have small dimensions. Because of their compactness, they can be used in a wide range of industrial and laboratory applications.

They are available in the range between 0 ... 1 kN bis 0 ... 500 kN.

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

The force is applied vertically to the load cell axis at the ball-shaped scraper.

Note

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

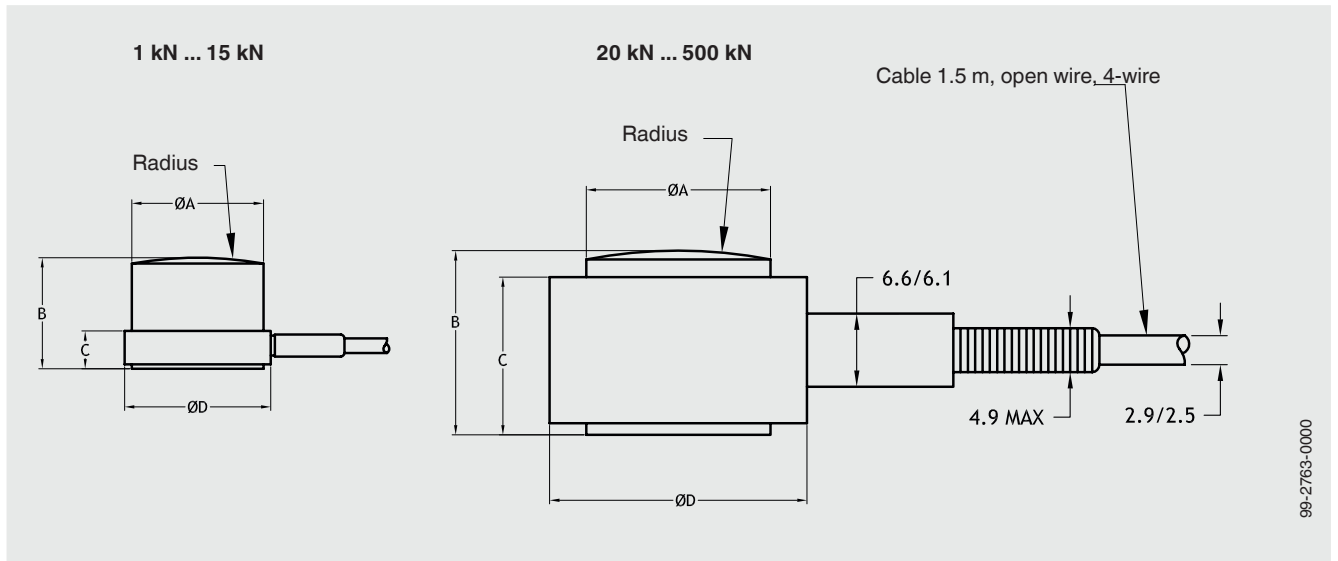
The load cells are to be mounted on a level, grinded and sufficiently hard surface.

Technical data in accordance with VDI/VDE/DKD 2638

Model F1224											
Rated force F_{nom} in kN	1	2	5	10	15	20	30	50	100	200	500
Relative linearity error d_{lin}	±1 % of F.S.										
Force limit F_L	150 % F_{nom}										
Breaking force F_B	> 300 % F_{nom}										
Permissible oscillation stress F_{rb}	±70 % F_{nom} in accordance with DIN 50100										
Nominal deflection s_{nom}	< 0.05 mm										
Rated temperature $B_{T, nom}$	+15 ... +70 °C										
Operating temperature $B_{T, G}$	-54 ... +120 °C										
Reference temperature T_{ref}	23 °C										
Temperature effect on ■ characteristic value TK_c ■ zero signal TK_0	≤ ±0.1 % of F.S./10 K										
Protection type	IP65 in accordance with EN/IEC 60529										
Insulation resistance R_{is}	> 5 GΩ (50 V)										
Analogue output ■ Output signal (characteristic value) C ■ Input-/output resistance R_e/R_a ■ Option ■ Supply voltage ■ Electrical connection	1.5 mV/V 350 Ω Cable integrated amplifier 0 (4) ... 20 mA, DC 0 ... 10 V 5 V (max. 5 V), DC 24 V, for cable integrated amplifier Cable 1.5 m, open wire, 4-wire										
Material of measuring device	Stainless steel 17-4 PH										
Weight (incl. cable) in g	4 ... 400 depending on nominal load										

F.S. = full scale value

Dimensions in mm



Nominal load kN	Dimensions in mm			
	ØD	ØA	B	C
1	12.7	6.9	9.65	3.3
2	12.7	7.1	9.65	3.3
5	12.7	7.9	9.65	3.3
10	12.7	10.4	9.65	3.3
15	16.0	12.4	15.24	5.8
20	16.0	13.5	15.24	5.8
50	22.35	19.3	16.0	13.7
100	44.45	31.75	35.1	31.75
200	44.45	31.75	35.1	31.75
500	50.8	38.1	41.4	38.1

Electrical connection	
Supply (-)	Black
Supply (+)	Red
Signal (+)	White
Signal (-)	Green

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