Force Sensor KM25 100N

Item number: 5359

The force sensor KM25 is a membrane-type force sensor with small dimensions.

t is suitable for measuring compressive forces. The force sensor is fitted into a flat recess and if required, fixed in place with adhesive. There is a spherical cap of radius 20 mm provided for the force transmission.

The method of protection is IP 66.

Optional special version

- Vacuum version > 10^{-5} mbar
- Pressure range up to 8 bar
- Suitable for cleanrooms

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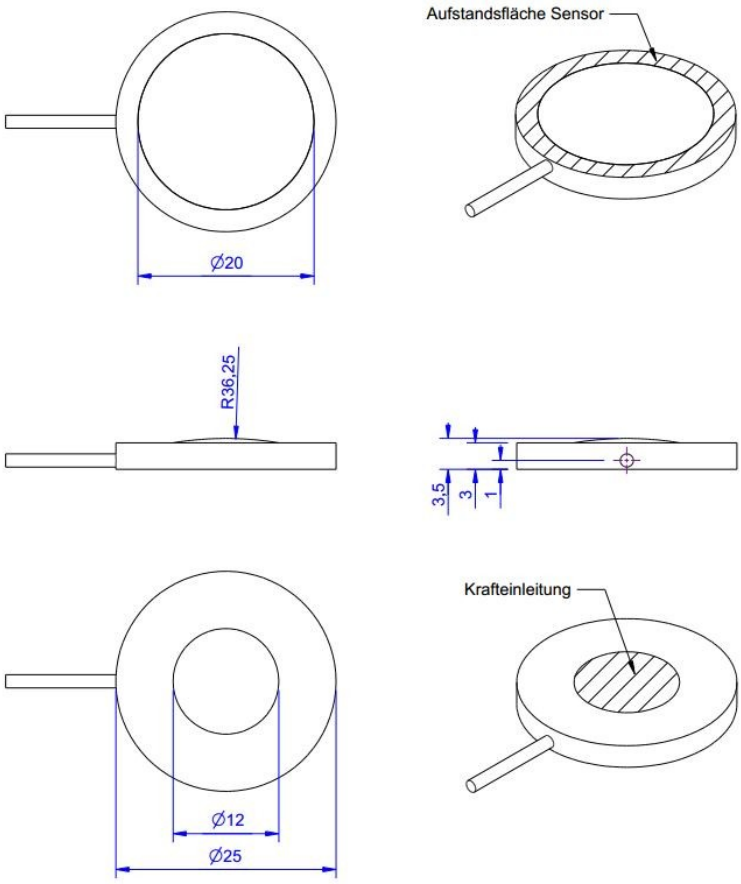
Stand: 04.06.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Force load cell	
Force direction	Compression	
Rated force Fx	100	N
Force introduction	Load button	
Dimension 1	Ø12	
Sensor Fastening	Circular ring	
Dimension 2	Ø25x2,5	
Operating force	150	%FS
Rated displacement	0.08	mm
Lateral force limit	10	%FS
Material	Stainless steel	
Natural frequency fx	5	kHz
Dimensions	Ø25 mm x 3 mm	
Height	3	mm
Length or Diameter	25	mm
Variants	100N...1kN	

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Electrical Data		Unit
Input resistance	380	Ohm
Tolerance input resistance	30	±
Output resistance	350	Ohm
Tolerance output resistance	2.5	±
Insulation resistance	5x10^9	Ohm
Rated range of excitation voltage from	2.5	V
Rated range of excitation voltage to	5	V
Operating range of excitation voltage from	1	V
Operating range of excitation voltage to	10	V
Zero signal	0.05	mV/V
Rated output	1.5	mV/V / FS
relative error of characteristic value	0.5	mV/V / FS

Accuracy Data		Unit
Accuracy class	1	
Relative linearity error	0.1	%FS
Relative zero signal hysteresis	0.05	%FS
Temperature effect on zero signal	0.02	%FS/K
Temperature effect on characteristic value	0.02	%RD/K
Relative creep	0.1	%FS
Environmental Data		**Unit**
Rated temperature range from	-10	°C
Rated temperature range to	70	°C
Operating temperature range from	-10	°C
Operating temperature range to	85	°C
Storage temperature range from	-10	°C
Storage temperature range to	85	°C
Environmental protection	IP66	

Abbreviation : RD: „Reading“; FS: „Full Scale“;1) Nominal output: 1,0±0,5 for 100NThe exact nominal sensitivity is indicated in the test report.

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Pin Assignment

Channel	Symbol	Description	Wire color	PIN
	+Us	positive bridge supply	brown	
	-Us	negative bridge supply	white	
	+Ud	positive bridge output	green	
	-Ud	negative bridge output	yellow	

Screen - transparent. Pressure load : positive output signal

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