Force Sensor KM115i 50kN/010

Item number: 17297



The force sensor KM115i is a membrane force sensor with integrated electronics for measuring compressive forces. It is fastened to an even surface with four screws M12. A spherical cap with a radius of 160 mm is provided for the force transmission.

The integrated electronic GSV-6L provides an output signal 0...10 Volt or 4...20mA proportional to the applied force on the constructional element. The electronic GSV-6L offers a digital input for automatic zero adjustment, a digital input for autoscale and a digital output as threshold switch.

Environmental protection is IP 67.

Optional special version

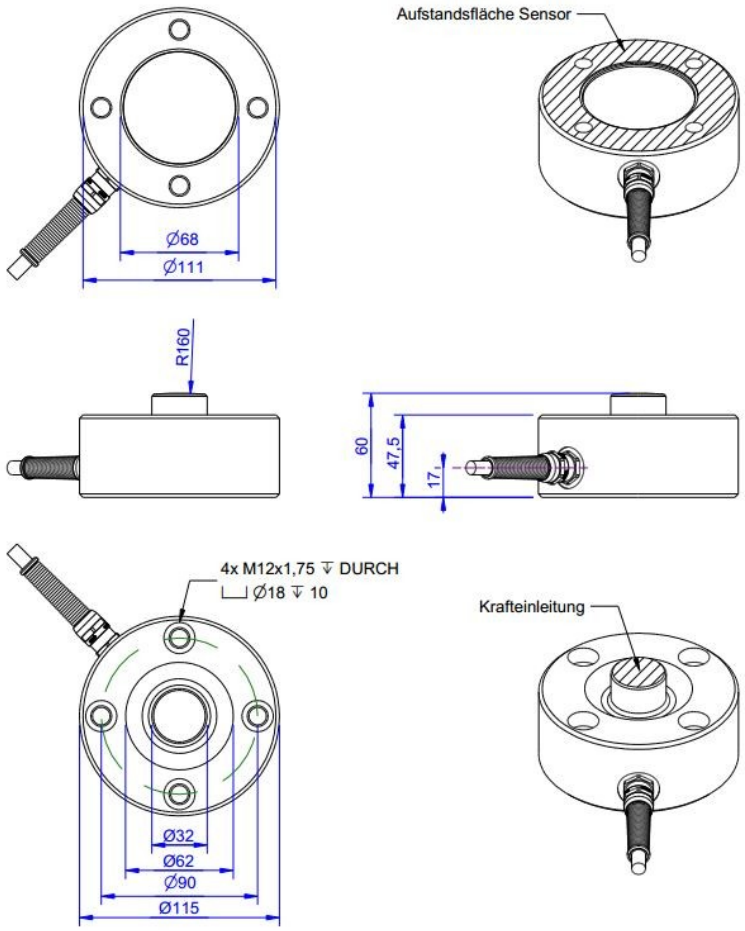
- Protection class IP68: from rated force 200 N
- Pressure range up to 8 bar
- Suitable for cleanrooms

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Stand: 03.11.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Force load cell	
Force direction	Compression	
Rated force Fx	50	kN
Force introduction	Load button	
Dimension 1	Ø32	
Sensor Fastening	Circular ring	
Dimension 2	Ø111x21,5	
Operating force	150	%FS
Rated displacement	0.08	mm
Lateral force limit	50	%FS
Material	Stainless steel	
Dimensions	Ø115 mm x 60 mm	
Height	60	mm
Length or Diameter	115	mm
Variants	50kN...200kN	

Electrical Data	Unit

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Accuracy Data		Unit
Accuracy class	0,5	
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

Analog Output		Unit
Voltage output from	0	V
Voltage output to	10	V
Zero adjustment to	0	V

Supply		Unit
Supply voltage from	14	V
Supply voltage to	30	V

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	IP67	

Abbreviation: RD: „Reading“; FS: „Full Scale“;1) The exact nominal sensitivity is indicated in the test report;

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Pin Assignment

Channel	Symbol	Description	Wire color	PIN
	Ub	Supply voltage (depends on variant)	brown	
	GND	Ground power supply	white	
	Ua (Out)	Output signal 4... 20mA / 0... 10V / 0... 5V	green	
	Tara (Ta)	Control input for zero balance	yellow	
	Scale (Sc)	Control input for amplification factor	grey	
	GND	Ground, signal	pink	
		Shield	transparent	

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