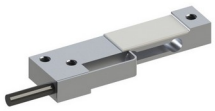
Force Sensor KD39 5N

Item number: 4296



The force sensor KD39 is especially suitable for integration in flat measuring plattforms, due to its height of 6mm and 12mm width. In measuring platforms three pieces of KD39 carry one measuring plate.

The overhangs on the top and bottom of the force sensor allow mounting on a flat plate.

Optional special version

- Temperature range -40°C to 180°C
- Vacuum version from 10^{-5} mbar
- Pressure range up to 8 bar

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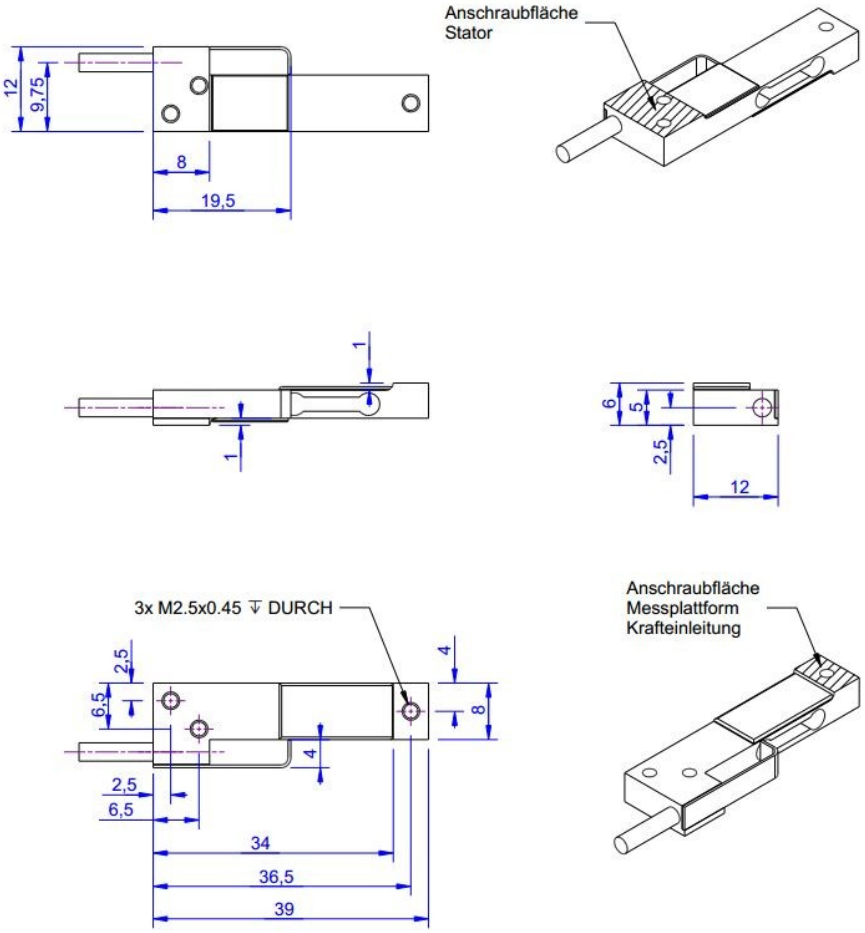
Stand: 01.09.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Kraftsensor	
Force direction	Tension/Compression	
Rated force Fx	5	N
Force introduction	Internal thread	
Dimension 1	M2,5x0,45	
Sensor Fastening	Internal thread	
Dimension 2	M2,5x0,45	
Operating force	200	%FS
Rated displacement	0.1	mm
Lateral force limit	200	%FS
Material	alluminum-alloy	
Natural frequency fx	600	Hz
Dimensions	39mm x 12mm x 6mm	
Height	6	mm
Length or Diameter	39	mm
Variants	5N... 50N	

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Electrical Data		Unit
Input resistance	390	Ohm
Tolerance input resistance	40	Ohm
Output resistance	350	Ohm
Tolerance output resistance	3	Ohm
Insulation resistance	2	GOhm
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	mV/V
Characteristic value range from	0.9	mV/V
Characteristic value range to	1.3	mV/V

Accuracy Data		Unit
Accuracy class	0,1	
Relative linearity error	0.02	%FS
Relative zero signal hysteresis	0.02	%FS
Temperature effect on zero signal	0.02	%FS/K
Temperature effect on characteristic value	0.01	%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	IP65	

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

Pin Assignment

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

Pressure load: positive output signal.Shield- transparent.

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