Force Sensor KD120 500N/HT

Item number: 2210



The force sensor KD120 is made for a maximum operating temperature of 180°C. Force introduction at the cylindrical ends is either done by clamps or by 4 screws M8.

Optional special version

- Protection class IP68: from rated force 200 N
- Suitable for cleanrooms

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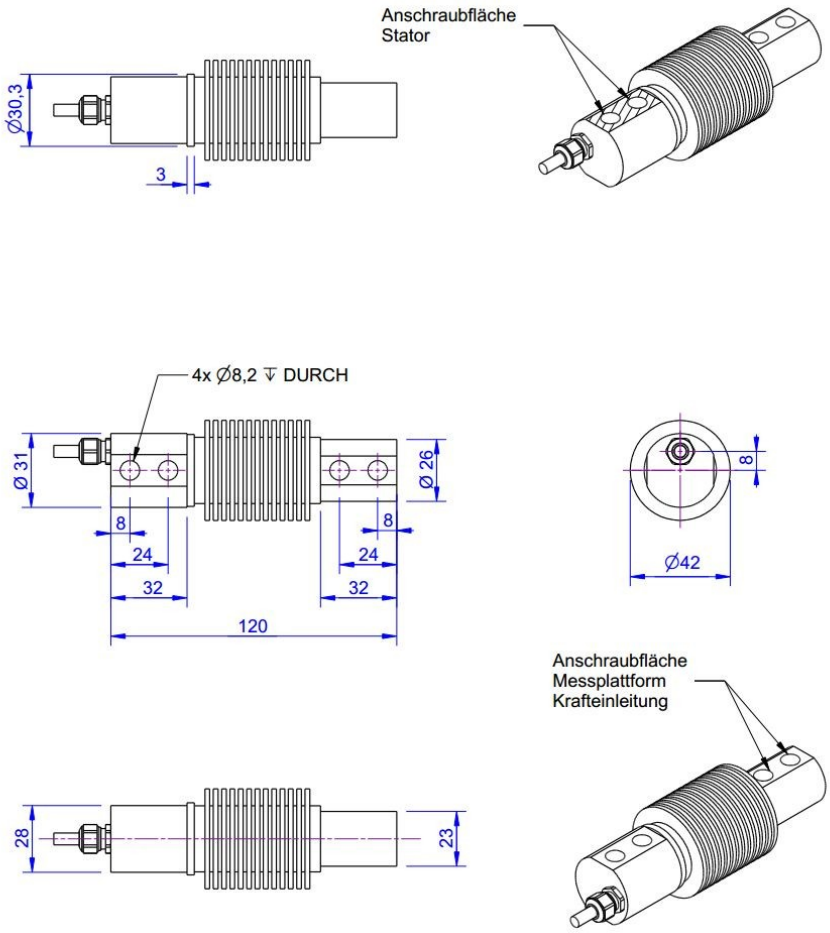
Stand: 20.03.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Kraftsensor	
Force direction	Tension/Compression	
Rated force Fx	500	N
Operating force	150	%FS
Rated displacement	0.2	mm
Lateral force limit	200	%FS
Material	Stainless steel	
Natural frequency fx	1	kHz
Dimensions	120mm x Ø42mm	
Height	42	mm
Length or Diameter	120	mm
Variants	100N... 2kN	

Electrical Data		Unit
Input resistance	390	Ohm
Tolerance input resistance	40	Ohm
Output resistance	350	Ohm
Tolerance output resistance	3	Ohm
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	mV/V / FS
Characteristic value range from	0.8	mV/V
Characteristic value range to	1.2	mV/V

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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	0.01	%FS/K
Temperature effect on characteristic value	0.01	%RD/K
Relative creep	0.05	%FS
Environmental Data		**Unit**
Rated temperature range from	-20	°C
Rated temperature range to	150	°C
Operating temperature range from	-40	°C
Operating temperature range to	180	°C
Storage temperature range from	-20	°C
Storage temperature range to	85	°C
Environmental protection	IP67	

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	yellow	
	+Uf	positive sense lead	blau	
	-Uf	negative sense lead	weiß	

Pressure load : positive output signal.Shield - transparent.

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