

KR70 $\pm 20\text{N}$; $\pm 50\text{N}$; $\pm 100\text{N}$

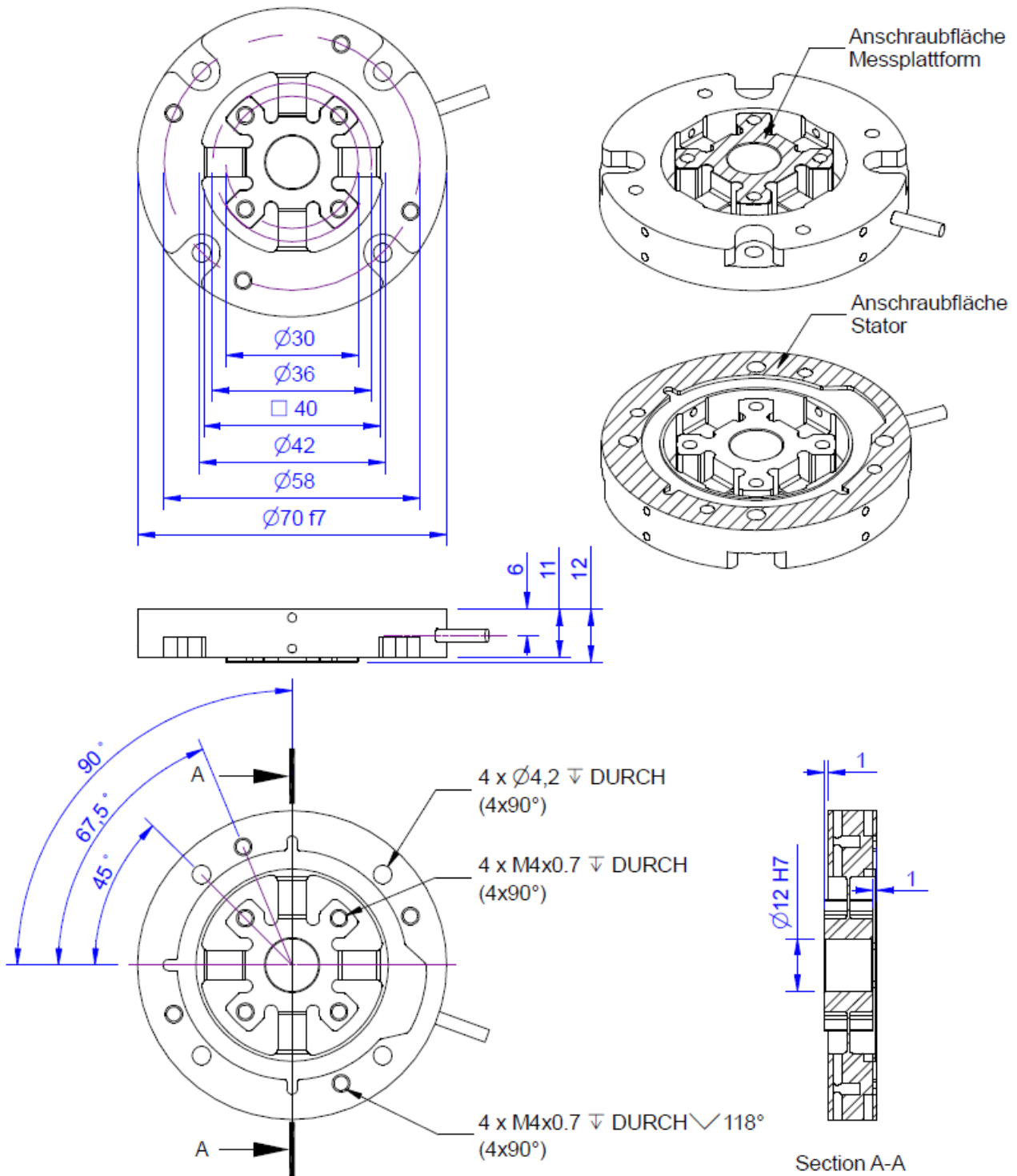


Description

Thanks to its compact design, the KR70 force sensor is ideal for testing tasks in quality assurance as well as in material testing.

This precision force sensor is characterized by a flat construction of only 12 mm thickness.

Dimensions





Technical Data

Kraftsensoren

Type	Force sensor	
Force direction	Tension / Compression	
Force introduction	Inner thread	
Dimension 1	4x M4x0,7	
Sensor Fastening	Inner thread	
Dimension 2	4x M4x0,7	
Operating force	150	%FS
Rated displacement	0.2	mm
Lateral force limit	100	%FS
Material	Aluminium alloy	
Dimensions	Ø 70 x 12	mm x mm
Height	12	mm
Length or Diameter	70	mm
Torque limit	7	Nm
Bending moment limit	0.01	FS * 0,01 Nm

Elektrische Daten

Input resistance	390	Ohm
Tolerance input resistance	40	Ohm
Output resistance	350	Ohm
Insulation resistance	>2x10 ⁹	Ohm
Rated range of excitation voltage f	2.5 ... 5	V
Operating range of excitation voltage f	1 ... 10	V
Zero signal	0.05	mV/V
Rated output	1	mV/V / FS

Precision

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	



Connection Data

Connection type	4 conductor open
Name of the connection	ME-SYSTEME.DE / 24-4 PUR
Cable length	3 m

Temperature

Rated temperature range f	-10 ... 70 °C
Operating temperature range f	-10 ... 85 °C
Storage temperature range f	-10 ... 85 °C
Environmental protection	IP66

Abbreviation: RD: „Reading“; FS: „Full Scale“;

1) The exact nominal sensitivity is indicated in the test report;








Pin Configuration

Channel	Symbol	Description	Wire colour
	+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

accessories

Description		Description
	Calibration Certificate kn/20/5	Factory calibration certificate for force to 20 kN in accordance with DIN EN ISO / IEC 17025 for test materials monitoring according to DIN ISO 9001: 2008 with 5 load levels and 3 series of measurements.
	GSV-1H	Measuring amplifier in top-hat rail housing for sensors with strain gauges. Analogue output -10V...+10V, limiting frequency 250Hz, 4 input sensitivities from 2.0mV/V.
	GSV-2T SD-DI	Measuring amplifier in desktop-housing for sensors with strain gauges. Serial port RS232, USB port, analogue output -5V...+5V, limiting frequency 260Hz, input sensitivity 3.5mV/V.
	GSV-3USB	Measuring amplifier in aluminum housing (IP54) for sensors with strain gauges. Limiting frequency 1250Hz, input sensitivity 2 / 3,5 / 10 mV/V.
	GSV-6K	analog amplifier pcb for sensors with strain gauges. Analog output configurable; sampling frequency is 10Hz ... 25kHz, input sensitivity adjustable 0.1 mV / V ... 8 mV / V