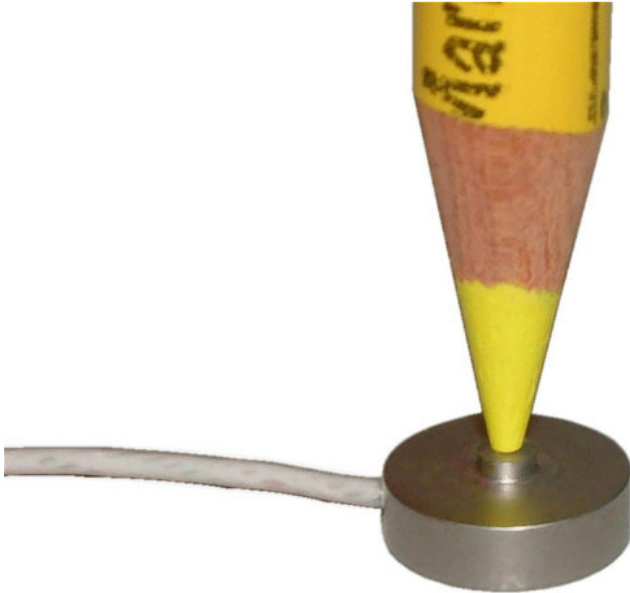


Load cell KM10

Variant: 25N, 50N, 100N, 200N, 500N, 1kN



Description

The force is transmitted via the universal ball joint (diameter 2.4mm, R4) in the centre of the sensor.

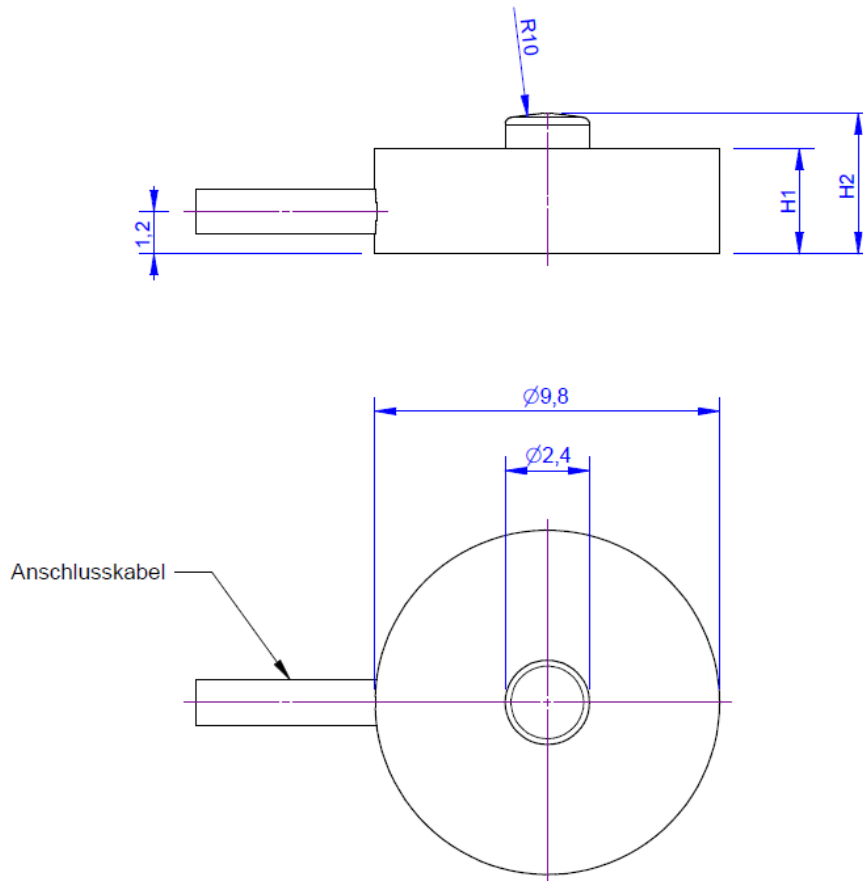
The force sensor is assembled on a flat surface. The force sensor is centered on the outer circumference, for example with 3 pins or within a 0.5 mm deep sink. The 9.8mm – 7.4mm ring forms the sensor's contact area. In the centre, a potting compound is visible up to a 7.4mm diameter. The inner ring is not used for centring.

To protect against lift-off, the contact area can be fixed on a flat surface with PUR lacquer. Due to its small dimensions, a Teflon cable with an outer diameter of just 1.4mm is used. Processing the AWG36 stranded wires requires a special tool (scalpel, Hoffmann stripper-AWG36-26). The Teflon coating is intended exclusively for fixed installation, not for mobile use.

A version with a central cable outlet is available as an alternative to a lateral cable outlet.

Cable type in this version is STC-31v-4RWBG, PVC, Diameter 2,2mm;

Dimensions





Technical Data

Kraftsensoren

Type	Load cell
Load	Compression
Force introduction	Load button
Dimension 1	Ø2,4
Sensor Fastening	Circular ring
Dimension 2	Ø9,8x1,2
Operating force	150 %FS
Rated displacement	0.08 mm
Material	Stainless steel
Height	4 mm
Length or Diameter	9.8 mm

Elektrische Daten

Input resistance	350 Ohm
Tolerance input resistance	20 ±
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 ... 5 V
Zero signal	0.1 mV/V
characteristic value range min	0.5 mV/V / FS
characteristic value range max	1.1 mV/V / FS

Precision

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

Connection Data

Connection type	4 conductor open
Name of the connection	STC-36T-4



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 IP64

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

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



Pin Configuration

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

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.
