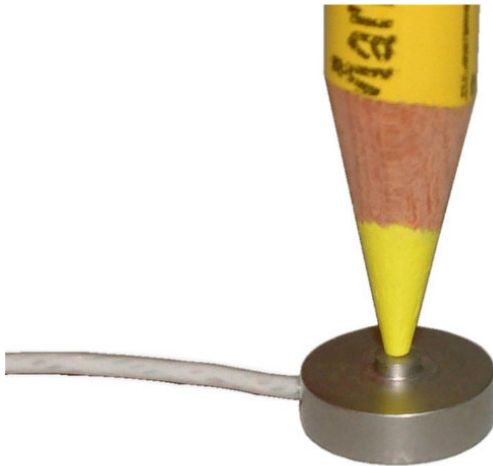


## KM10 25N, 50N, 100N, 200N, 500N, 1kN



### Description

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

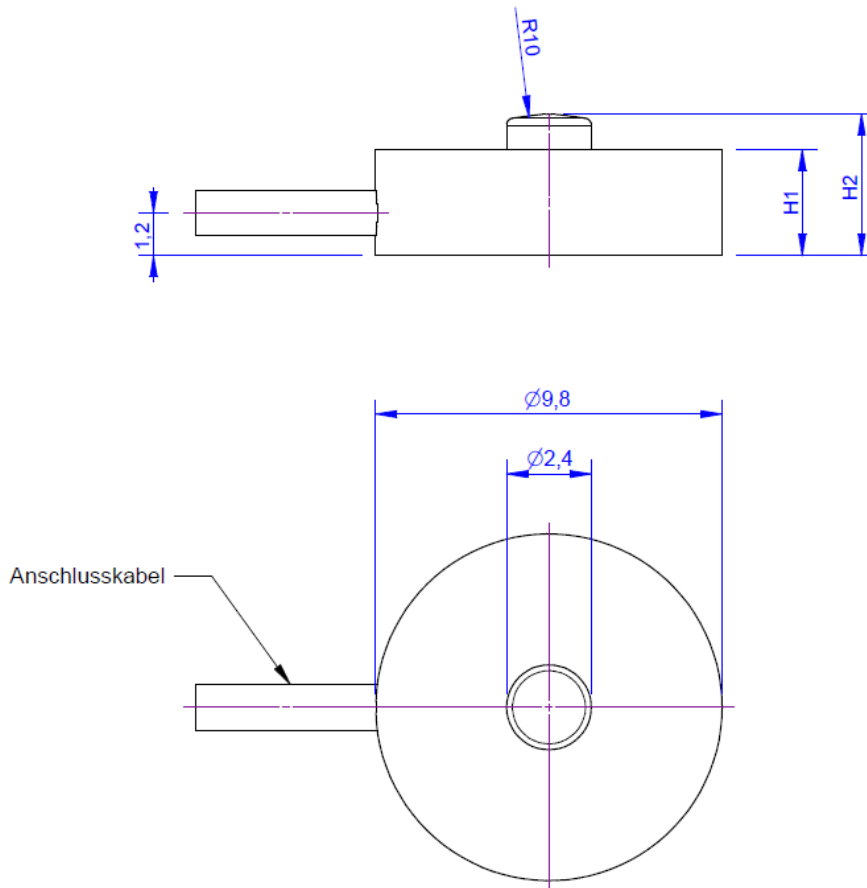
The force sensor is assembled on a flat surface. The force sensor is centered on the outer circumference, for example with 3 pins or within a 0.5 mm deep sink. The 9.8mm – 7.4mm ring forms the sensor's contact area. In the centre, a potting compound is visible up to a 7.4mm diameter. The inner ring is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

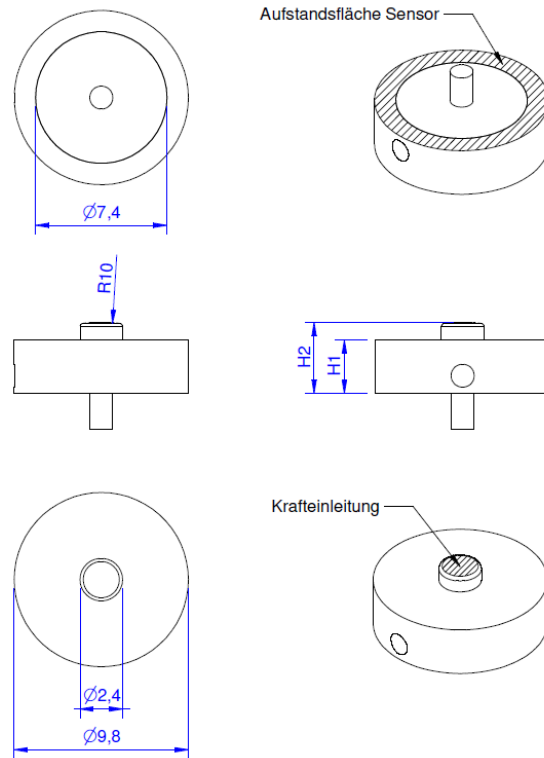
To protect against lift-off, the contact area can be fixed on a flat surface with PUR lacquer. Due to its small dimensions, a Teflon cable with an outer diameter of just 1.4mm is used. Processing the AWG36 stranded wires requires a special tool (scalpel, Hoffmann stripper-AWG36-26). The Teflon coating 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





Nennlast	Höhe (H1) in mm	Höhe (H2) in mm
25N	3	4
50N	3	4
100N	3	4
200N	3	4
500N	3	4
1000N	3,5	4,5

## Technical Data

### Force sensor

Type	Load cell
Force direction	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
Lateral force limit	10 %FS
Material	Stainless steel
Natural frequency	5 kHz
Height	4 mm
Length or Diameter	9.8 mm

### Electrical Data

Input resistance	350 Ohm
Tolerance input resistance	20 Ohm
Output resistance	350 Ohm
Insulation resistance	2 GOhm
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

Symbol	Description	Wire colour
+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.
	GSV-1H	Measuring amplifier in top-hat rail housing for sensors with strain gages. Analogue output -10V...+10V, limiting frequency 250Hz, 4 input sensitivities from 2.0mV/V.
	GSV-2TSD-DI	Measuring amplifier in desktop-housing for sensors with strain gages. 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 gages. Limiting frequency 1250Hz, input sensitivity 2 / 3,5 / 10 mV/V.