

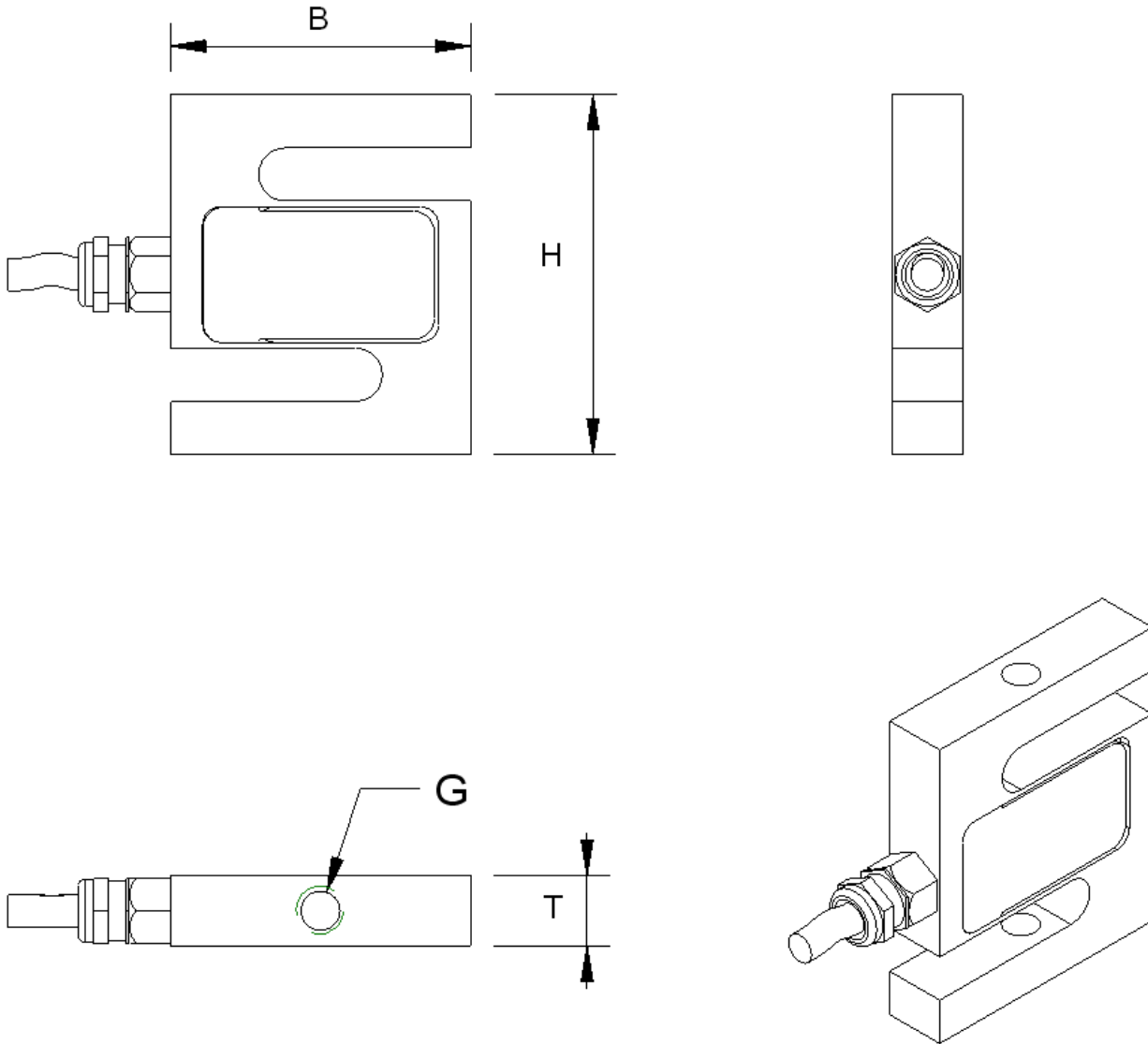
## KD9363s 100kg, 250kg, 500kg, 1,0t, 2,5t, 5,0t, 7,5t



### Description

The force sensor KD9363S is used for tensile and compressive force measurements and for weighing. The areas of application are e.g. wire rope measurements, test beds, overload securing for lifting tools, process controllers as well as weighing scales. The force sensor KD9363S conforms to the stringent European requirements for use in calibration-obligatory weighing scales. The method of protection is IP67.

### Dimensions



## Technical Data

### Force sensor

|                     |                       |
|---------------------|-----------------------|
| Type                | Force sensor          |
| Force direction     | Tension / Compression |
| Force introduction  | Inner thread          |
| Sensor Fastening    | Inner thread          |
| Operating force     | 150 %FS               |
| Rated displacement  | 0.3 mm                |
| Lateral force limit | 100 %FS               |
| Material            | Stainless steel       |
| Natural frequency   | 2 kHz                 |

### Electrical Data

|   |                       |
|---|-----------------------|
| Input resistance                        | 400 Ohm               |
| Tolerance input resistance              | 50 ±                  |
| Output resistance                       | 350 Ohm               |
| Tolerance output resistance             | 10 ±                  |
| Insulation resistance                   | 5x10 <sup>9</sup> 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                            | 3 mV/V / FS           |

### Precision

|  |            |
|--|------------|
| Accuracy class                             | 0,05%      |
| 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    |

### Connection Data

|                 |                  |
|-----------------|------------------|
| Connection type | 4 conductor open |
| Cable length    | 6 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      | IP65          |

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       |

*Shield- transparent.*

*Pressure load: positive output signal*

## accessories

|   | Description                      | Description  |
|---|----------------------------------|--|
|    | Rod End Mx                       | Rod End with male thread Mx, Hole Diameter x, Thread: right, Hight: x mm, Application: for KD24s, KD9363s, KD40s, KD80s;   |
|    | 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.  |
|    | Calibration Certificate kn/200/5 | Factory calibration certificate for force to 200 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 straingages. 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 straingages. 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 straingages. Limiting frequency 1250Hz, input sensitivity 2 / 3,5 / 10 mV/V.   |