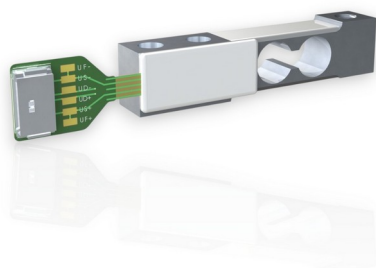


## Force Sensor KD60a 5N/IDC

Item number: 14753



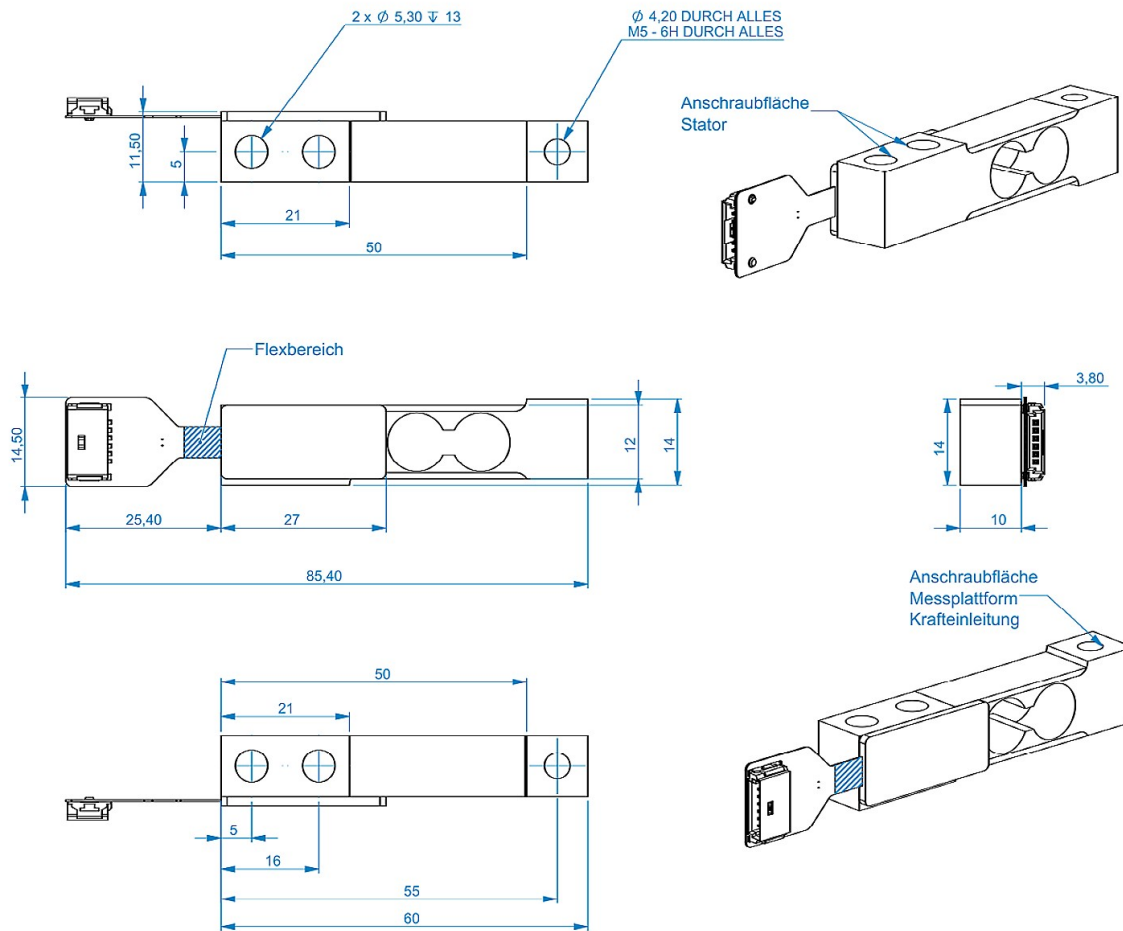
The KD60a force sensor is the successor to the KD60 force sensor. It also has the geometry of a miniature load cell and is attached on one side via the through holes. The force is introduced into the M5 thread. The force is introduced parallel when loaded. The force sensor tolerates displacements of the force introduction and transverse forces due to its double-beam design.

The special feature of this model is, among other things, the selectable connection option: thanks to the integrated circuit board, the appropriate connection can be selected. You can choose either the solder contacts for a direct cable connection or a small IDC connector for a suitable connection cable.

The KD60a force sensor can be used with an output signal of up to 2 mV/V or up to two times the specified nominal force.

An high-temperature version (HT) for a maximum operating temperature of 150°C is available on request. This sensor is suitable for test benches with high continuous loads.

## Technical Drawing



## Technical Data

| Basic Data                 |                     | Unit |
|----------------------------|---------------------|------|
| Type                       | Kraftsensor         |      |
| Force direction            | Tension/Compression |      |
| Rated force F <sub>x</sub> | 5                   | N    |
| Force introduction         | Internal thread     |      |
| Dimension 1                | 1xM5x0,8            |      |
| Sensor Fastening           | Through-hole        |      |
| Dimension 2                | 2xØ5,3              |      |
| Operating force            | 200                 | %FS  |
| Rated displacement         | 0.1                 | mm   |
| Lateral force limit        | 500                 | %FS  |
| Material                   | Stainless steel     |      |
| Dimensions                 | 60mm x 10mm x 14mm  |      |
| Height                     | 14                  | mm   |
| Length or Diameter         | 60                  | mm   |

| Electrical Data                            |      | Unit      |
|--------------------------------------------|------|-----------|
| Input resistance                           | 400  | Ohm       |
| Tolerance input resistance                 | 50   | Ohm       |
| Output resistance                          | 350  | Ohm       |
| Tolerance output resistance                | 3    | Ohm       |
| Insulation resistance                      | 2    | GOhm      |
| 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            | 0.75 | mV/V / FS |
| Characteristic value range to              | 1.1  | mV/V / FS |

| Accuracy Data                              |      | Unit  |
|--------------------------------------------|------|-------|
| Relative linearity error                   | 0.1  | %FS   |
| Relative zero signal hysteresis            | 0.1  | %FS   |
| Temperature effect on zero signal          | 0.2  | %FS/K |
| Temperature effect on characteristic value | 0.01 | %RD/K |
| Relative creep                             | 0.1  | %FS   |

| Environmental Data               |     | Unit |
|----------------------------------|-----|------|
| Rated temperature range from     | -10 | °C   |
| Rated temperature range to       | 70  | °C   |
| Operating temperature range from | -10 | °C   |
| Operating temperature range to   | 85  | °C   |
| Storage temperature range from   | -10 | °C   |