# Force Sensor KB16x32 1kN

Item number: 2650



The plug gauge KB16x32 can be used to measure the force in connection with a fork head of the DIN 71152 / DIN ISO 8140.

The Ø4mm holes in the head and bolt can be used as an anti-rotation device.

## Optional special version

- Protection class IP68: from rated force 200 N
- Pressure range up to 8 bar
- Suitable for cleanrooms

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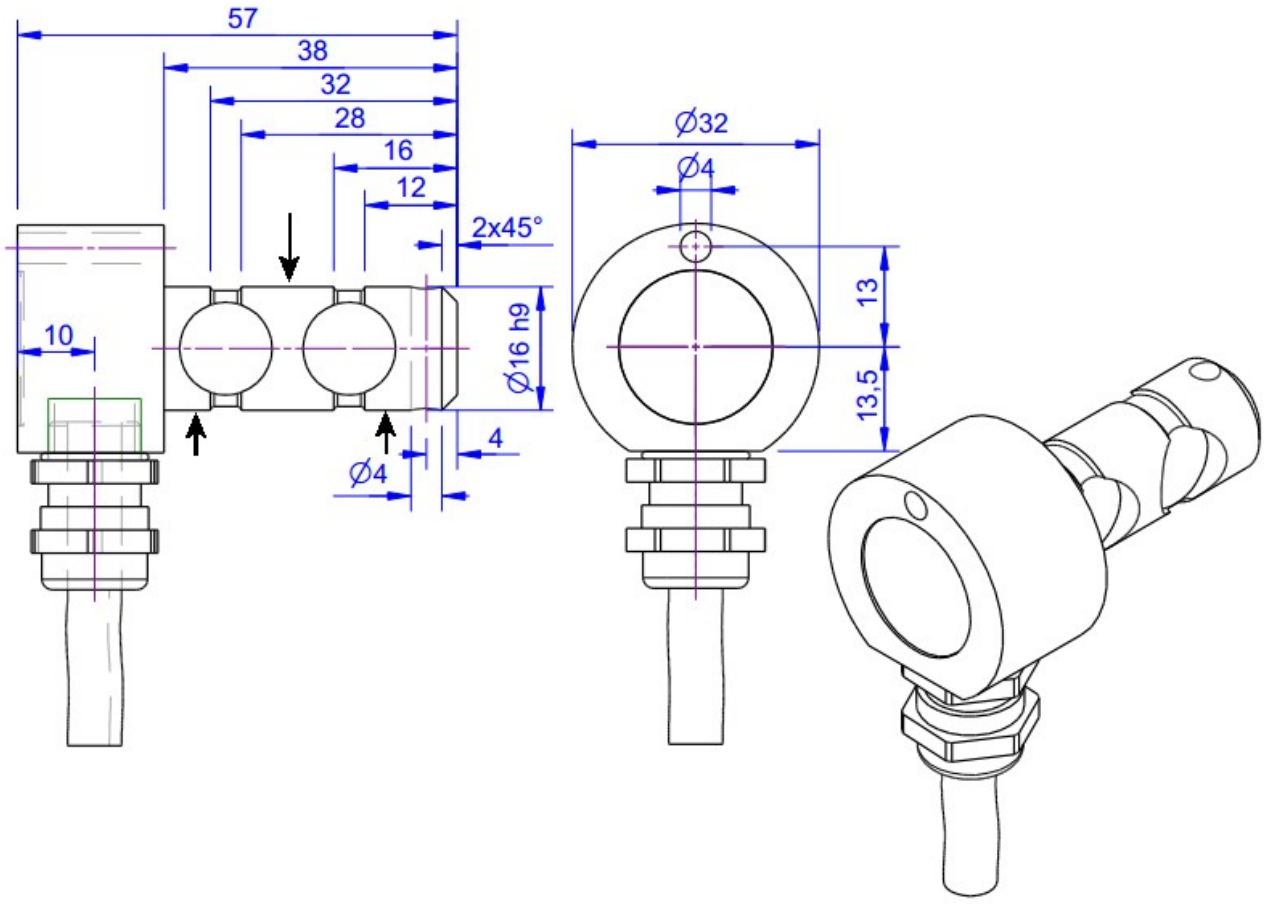
Stand: 20.03.2026

## Technical Drawing

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## Technical Data

| Basic Data | | Unit |
|---|---|---|
| Type | Messbolzen | |
| Force direction | Tension/Compression | |
| Rated force Fx | 1 | kN |
| Force introduction | Zylinder | |
| Dimension 1 | Ø16x6 | |
| Sensor Fastening | Zylinder | |
| Dimension 2 | 2xØ16x6 | |
| Operating force | 150 | %FS |
| Rated displacement | 0.04 | mm |
| Material | Stainless steel | |
| Dimensions | Ø16mm x 32mm | |
| Height | 16 | mm |
| Length or Diameter | 38 | mm |
| Bending moment limit | 50 | Nm |
| Variants | 1kN... 10kN | |

| Electrical Data | | Unit |
|---|---|---|
| Input resistance | 390 | Ohm |
| Tolerance input resistance | 40 | ± |
| Output resistance | 350 | Ohm |
| Tolerance output resistance | 1 | ± |
| Insulation resistance | 2x10^9 | Ohm |
| 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 |

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| Accuracy Data | | Unit |
|---|---|---|
| Accuracy class | 1 | |
| Relative linearity error | 0.2 | %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 |
| **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 |
| Storage temperature range to | 85 | °C |
| Environmental protection | IP66 | |

Abbreviation : RD: „Reading"; FS: „Full Scale";1) The exact nominal sensitivity is indicated in the test report.

## Pin Assignment

| Channel | Symbol | Description | Wire color | PIN |
|---|---|---|---|---|
| | +Us | positive bridge supply | brown | |
| | -Us | negative bridge supply | white | |
| | +Ud | positive bridge output | green | |
| | -Ud | negative bridge output | yellow | |

Pressure load: positive output signal.
Shield- transparent.

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