

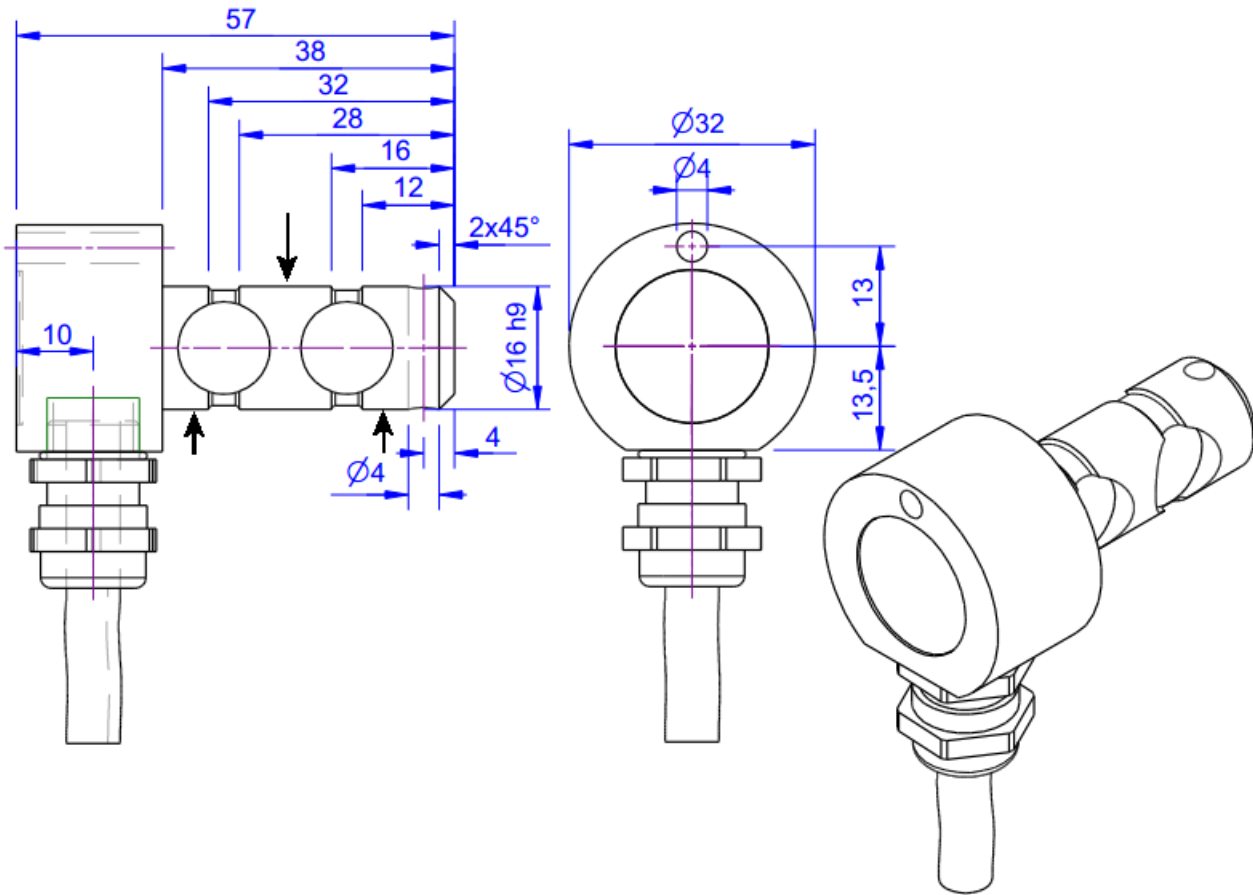
KB16x32



Description

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

Dimensions



Technical Data - Version 1kN

Force sensor

Type	measuring pin
Force direction	Tension / Compression
Rated force F _x	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
Height	16 mm
Length or Diameter	38 mm
Bending moment limit	50 Nm

Electrical Data

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 f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1 mV/V / FS

Precision

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

Connection Data

Connection type	4 conductor open
Name of the connection	FD 4x0,14/PUR
Cable length	5 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	IP66

Technical Data - Version 2kN

Force sensor

Type	measuring pin
Force direction	Tension / Compression
Rated force F _x	2 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
Height	16 mm
Length or Diameter	38 mm
Bending moment limit	50 Nm

Electrical Data

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 f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1 mV/V / FS

Precision

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

Connection Data

Connection type	4 conductor open
Name of the connection	FD 4x0,14/PUR
Cable length	5 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	IP66

Technical Data - Version 5kN

Force sensor

Type	measuring pin
Force direction	Tension / Compression
Rated force F _x	5 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
Height	16 mm
Length or Diameter	38 mm
Bending moment limit	50 Nm

Electrical Data

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 f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1 mV/V / FS

Precision

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

Connection Data

Connection type	4 conductor open
Name of the connection	FD 4x0,14/PUR
Cable length	5 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	IP66

Technical Data - Version 10kN

Force sensor

Type	measuring pin
Force direction	Tension / Compression
Rated force Fx	10 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
Height	16 mm
Length or Diameter	38 mm
Bending moment limit	50 Nm

Electrical Data

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 f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	1 mV/V / FS

Precision

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

Connection Data

Connection type	4 conductor open
Name of the connection	FD 4x0,14/PUR
Cable length	5 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	IP66



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	brown
-Us	negative bridge supply	white
+Ud	positive bridge output	green
-Ud	negative bridge output	yellow

Pressure load: positive output signal.

Shield- transparent.

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.