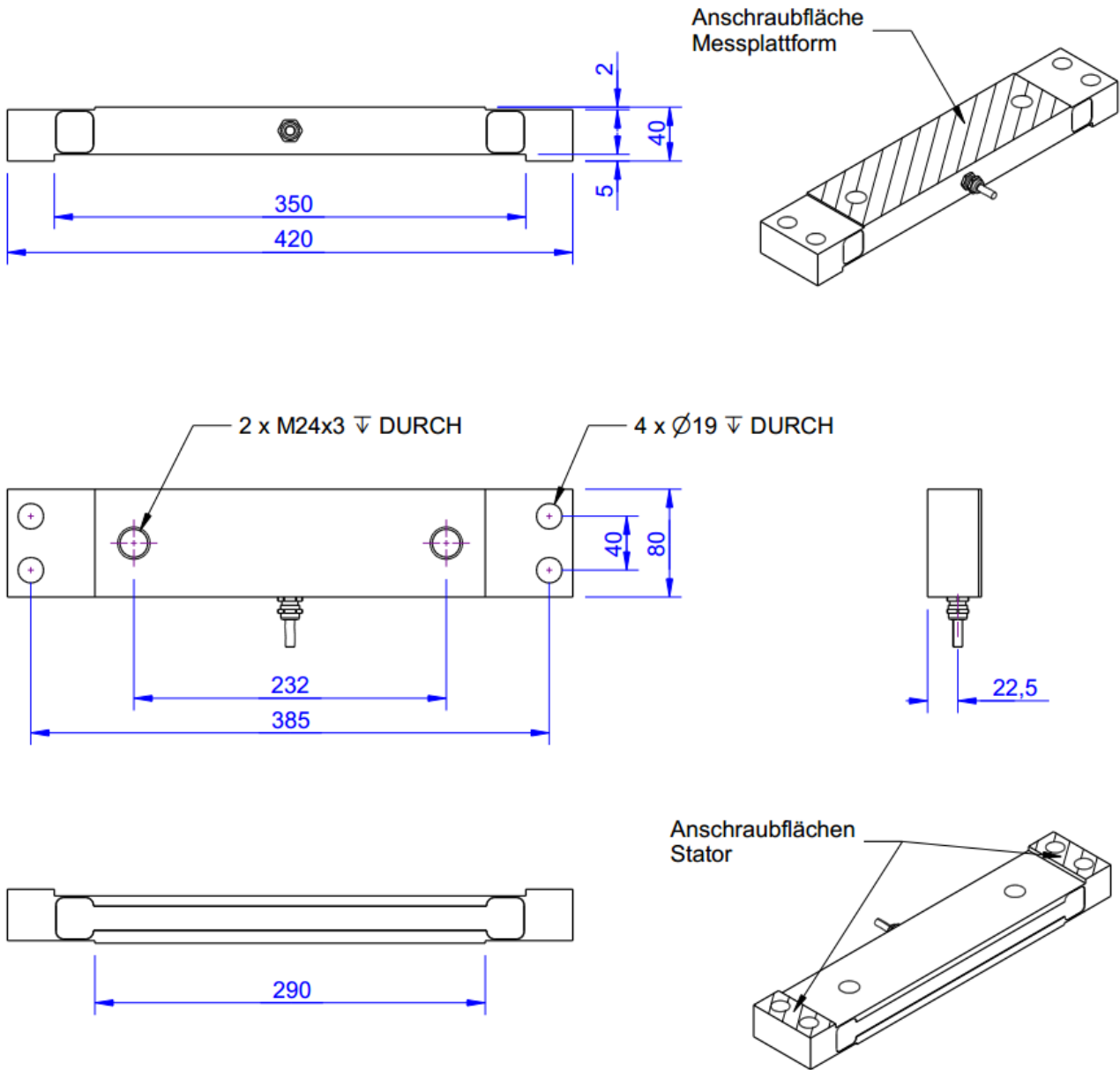


KS420 - Capteur de force pour paliers à semelle



Description

Dimensions



Technical Data - Version 10 kN

Force sensor

Type	Force sensor
Force direction	Tension / Compression
Rated force F _x	10 kN
Force introduction	Inner thread
Dimension 1	2xM24x3
Sensor Fastening	Through bore
Dimension 2	4xØ19
Operating force	150 %FS
Rated displacement	0.1 mm
Lateral force limit	50 %FS
Material	Tool steel
Surface	electrogalvanized
Height	40 mm
Length or Diameter	420 mm

Electrical Data

Input resistance	200 Ohm
Tolerance input resistance	25 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 ... 10 V
Zero signal	0.05 mV/V
Rated output	1 mV/V / FS

Precision

Accuracy class	0,1%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.1 %FS
Temperature effect on zero signal	0.01 %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	2x2x0,25/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	IP65

Technical Data - Version 20 kN

Force sensor

Type	Force sensor
Force direction	Tension / Compression
Rated force F _x	20 kN
Force introduction	Inner thread
Dimension 1	2xM24x3
Sensor Fastening	Through bore
Dimension 2	4xØ19
Operating force	150 %FS
Rated displacement	0.1 mm
Lateral force limit	50 %FS
Material	Tool steel
Surface	electrogalvanized
Height	40 mm
Length or Diameter	420 mm

Electrical Data

Input resistance	200 Ohm
Tolerance input resistance	25 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 ... 10 V
Zero signal	0.05 mV/V
Rated output	1 mV/V / FS

Precision

Accuracy class	0,1%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.1 %FS
Temperature effect on zero signal	0.01 %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	2x2x0,25/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	IP65

Technical Data - Version 50 kN

Force sensor

Type	Force sensor
Force direction	Tension / Compression
Rated force F _x	50 kN
Force introduction	Inner thread
Dimension 1	2xM24x3
Sensor Fastening	Through bore
Dimension 2	4xØ19
Operating force	150 %FS
Rated displacement	0.1 mm
Lateral force limit	50 %FS
Material	Tool steel
Surface	electrogalvanized
Height	40 mm
Length or Diameter	420 mm

Electrical Data

Input resistance	200 Ohm
Tolerance input resistance	25 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 ... 10 V
Zero signal	0.05 mV/V
Rated output	1 mV/V / FS

Precision

Accuracy class	0,1%
Relative linearity error	0.1 %FS
Relative zero signal hysteresis	0.1 %FS
Temperature effect on zero signal	0.01 %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	2x2x0,25/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	IP65



Abbreviation : RD: „Reading“; FS: „Full Scale“;

1) The exact nominal sensitivity is indicated in the test report.

2) optional: 780 ±80 Ohm Pin Configuration








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

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 gauges. 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 gauges. Serial port RS232, USB port, analogue output -5V...+5V, limiting frequency 260Hz, input sensitivity 3.5mV/V.
	GSV-3USB	Measuring amplifier in aluminum housing for sensors with strain gauges. Limiting frequency 1250Hz, input sensitivity 2 / 3,5 / 10 mV/V.
	GSV-6K	Analogue measuring amplifier in plug housing for sensors with strain gauges. Analogue output configurable, TEDS, sampling frequency 1Hz ... 25kHz, input sensitivity configurable 0.1mV/V ... 8mV/V