

KD80se ±500N/010-5



Description

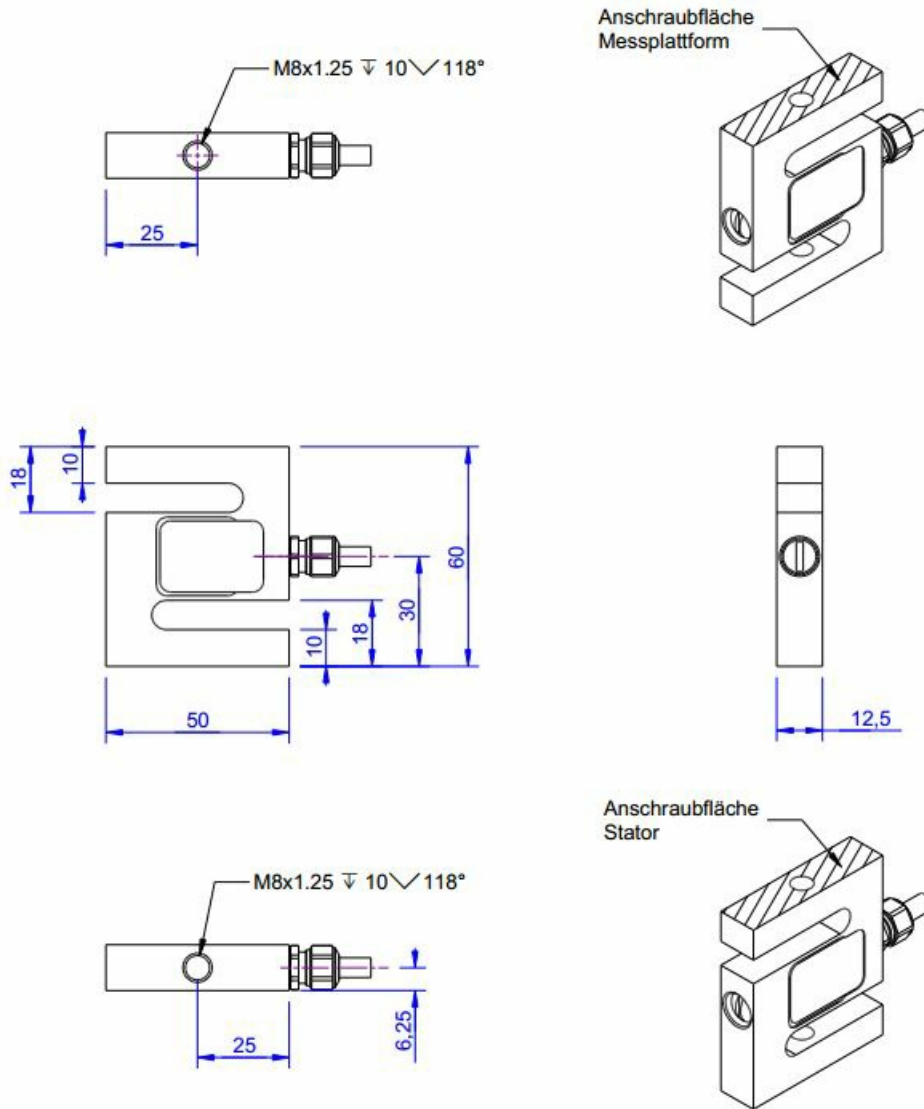
The force sensor KD80se is used for tensile and compressive force measurements and for weighing.

Fields of application are e.g. Rope force measurements, test benches, overload protection for lifting equipment, process controls and scales.

The KD80se sensors have an integrated GSV-13q measuring amplifier with analogue output. The supply voltage is 14 ...28V DC Unlike the GSV-6L integratable measuring amplifier, the GSV-13i is not configurable via the ClickRClackR menu. The integrated measuring amplifier GSV-13i focuses on smallest dimensions, zero setting and scaling function. In contrast, filter functions and resolution with 600 nV/V ... 20 µV/V noise amplitude PkPk not suitable for high resolution applications. For high resolutions the use of an external measuring amplifier is recommended.

The KD80se sensors correspond to accuracy class 0.5%. The protection class is IP65.

Dimensions



Technical Data

Force sensor

Type	Force sensor
Force direction	Tension / Compression
Rated force F _x	500 N
Force introduction	Inner thread
Dimension 1	M8x1,25
Sensor Fastening	Inner thread
Dimension 2	M8x1,25
Operating force	150 %FS
Rated displacement	0.2 mm
Lateral force limit	100 %FS
Material	Stainless steel
Natural frequency	5 kHz
Height	60 mm
Length or Diameter	50 mm

Measuring frequency

Limit frequency (analog)	10 Hz
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Precision

Accuracy class	0,5%
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

Supply

Supply voltage f	14 ... 28 V
Current consumption from	40 mA

Connection Data

Name of the connection	Unitronic FD CP Plus 3x2x0,14
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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

Basis Data

Number of channels	1-Kanal
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Abbreviation: RD: „Reading“; FS: „Full Scale“;




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

Pin Configuration

Symbol	Description	Wire colour
Ub	Supply voltage (depends on variant)	brown
GND	Ground power supply	white
Ua (Out)	Output signal 4... 20mA / 0... 10V / 0... 5V	green
Tara (Ta)	Control input for zero balance	yellow
Scale (Sc)	Control input for amplification factor	grey
GND	Ground, signal	pink
	Shield	transparent

accessories

Description	Description
	Calotte screwable
	Screwable stop pin for force introduction for sensors KDs;