

Force sensor KD80s

Variant: $\pm 500\text{N}$, $\pm 1\text{kN}$, $\pm 2\text{kN}$, $\pm 5\text{kN}$, $\pm 10\text{kN}$, $\pm 20\text{kN}$, $\pm 50\text{kN}$, $\pm 100\text{kN}$, $\pm 200\text{kN}$



Description

The force sensor KD80s is used for tensile and compressive force measurements and for weighing.

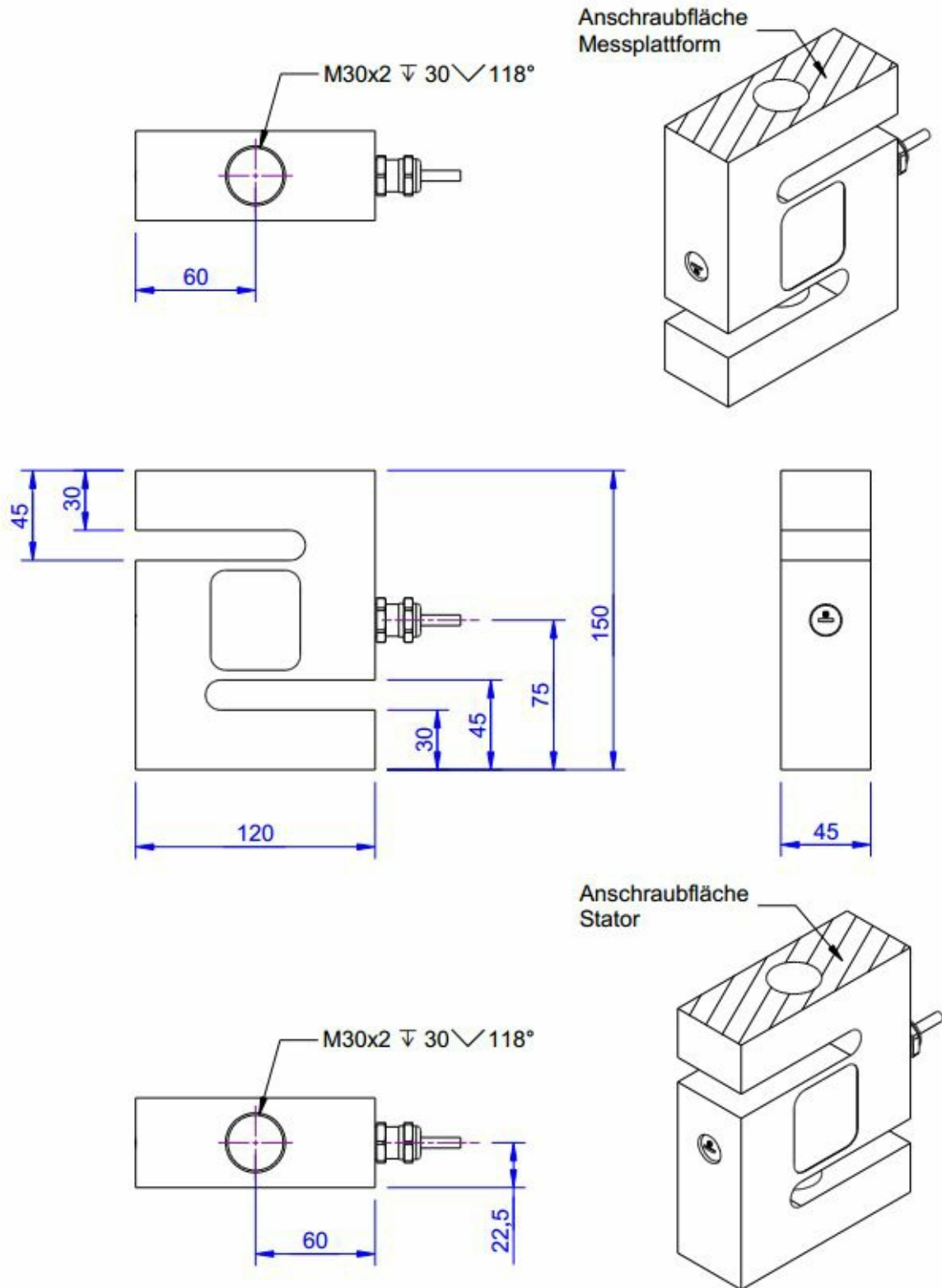
The areas of application are e.g. wire rope measurements, test beds, overload securing for lifting tools, process controllers as well as weighing scales.

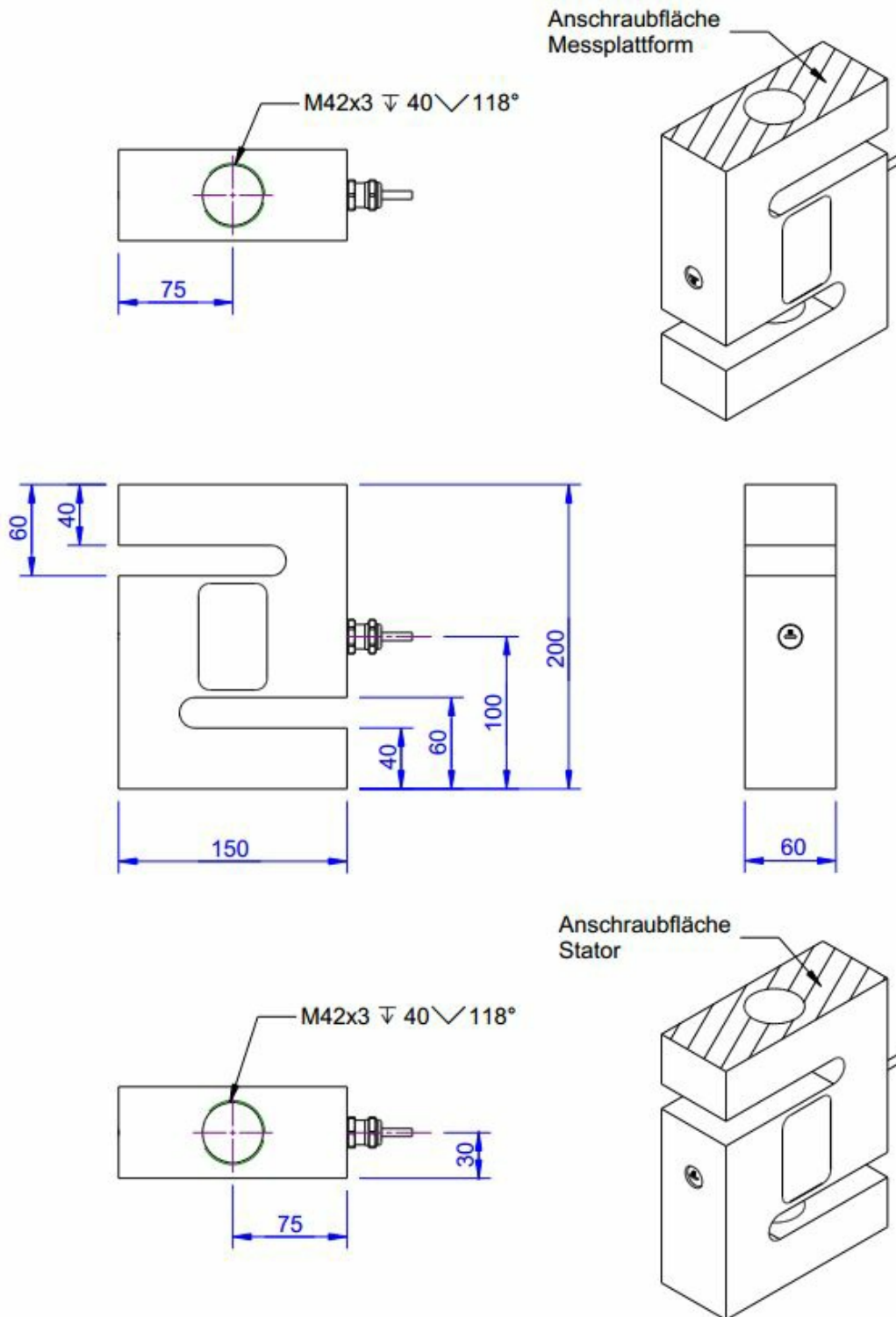
The force sensor KD80s for the standard temperature range will be delivered with cable Unitronic FD CP Plus 4x0,14.

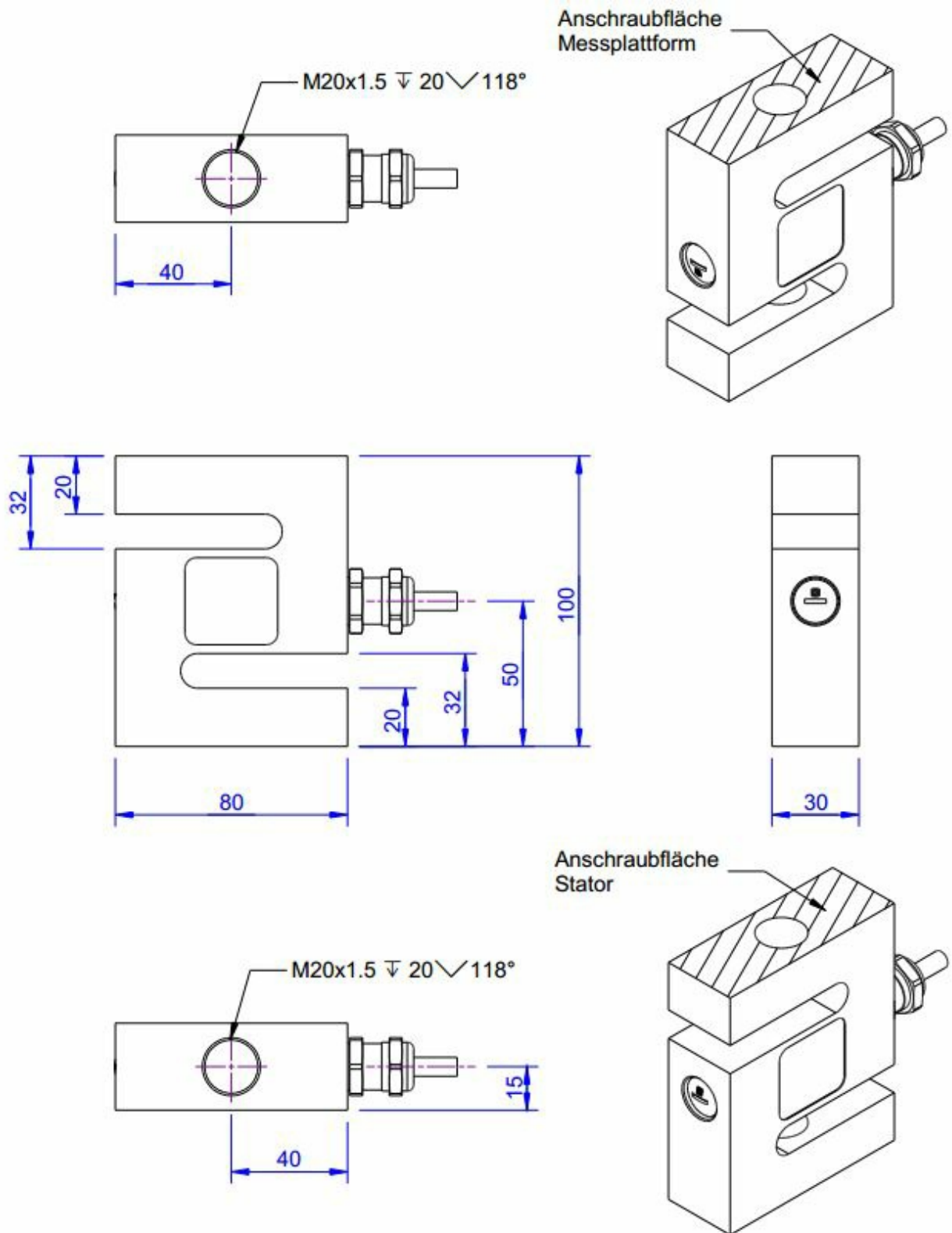
The force sensor KD80s HT is used for the maximum operating temperature of 150°C. For this temperature range of 150°C the sensor will be delivered with 6-wire high temperature resistant cable E 2419 STK 6 6x0,25 PTFE.

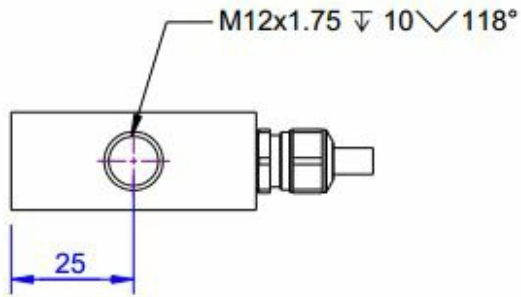
The KD80s sensors have accuracy class of 0,1%. The environmental protection is IP65.

Dimensions

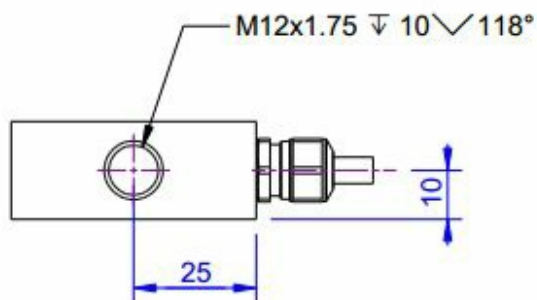
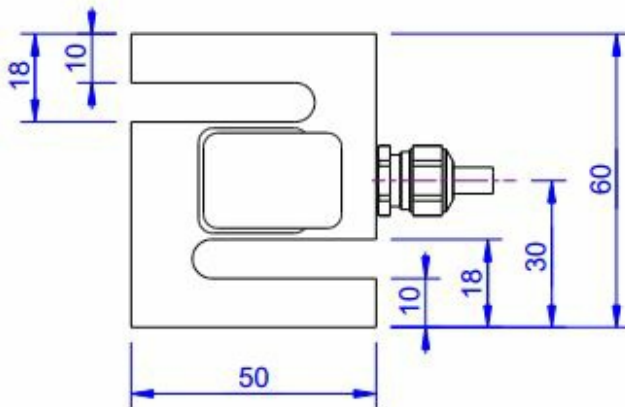
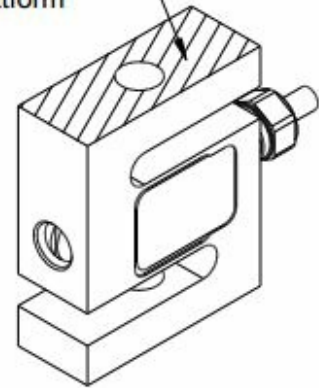




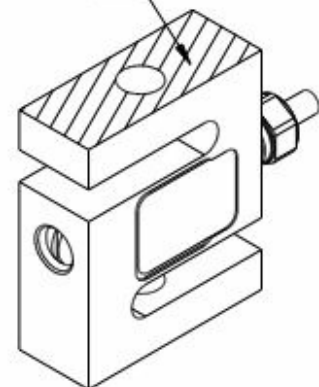


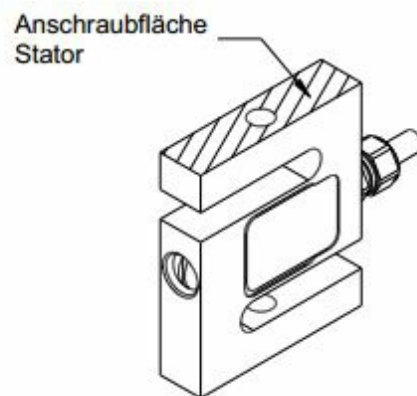
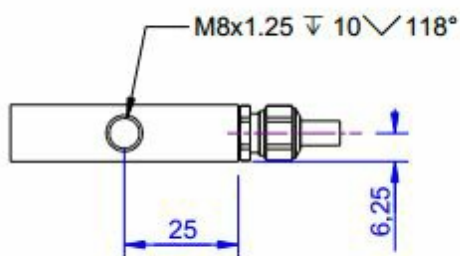
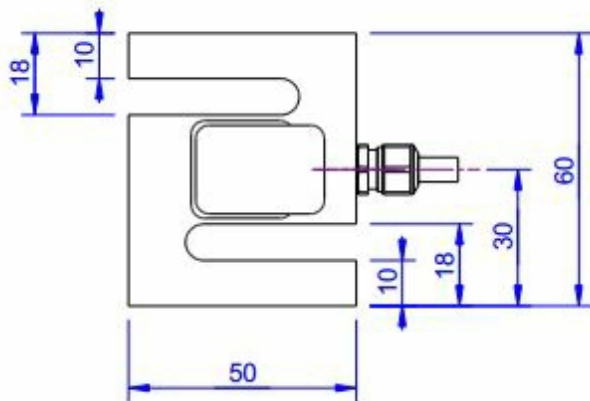
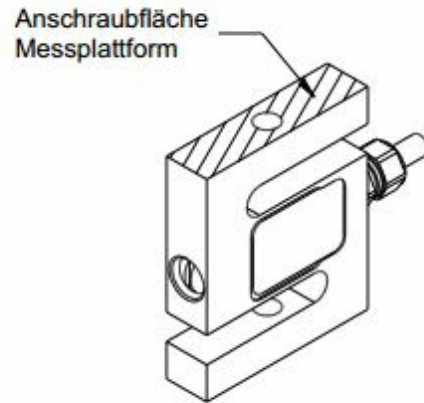
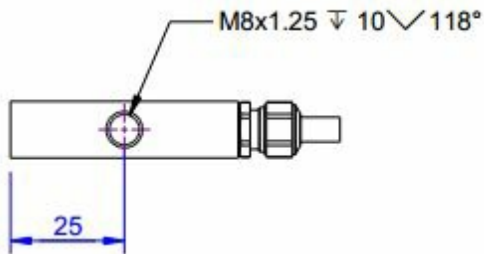


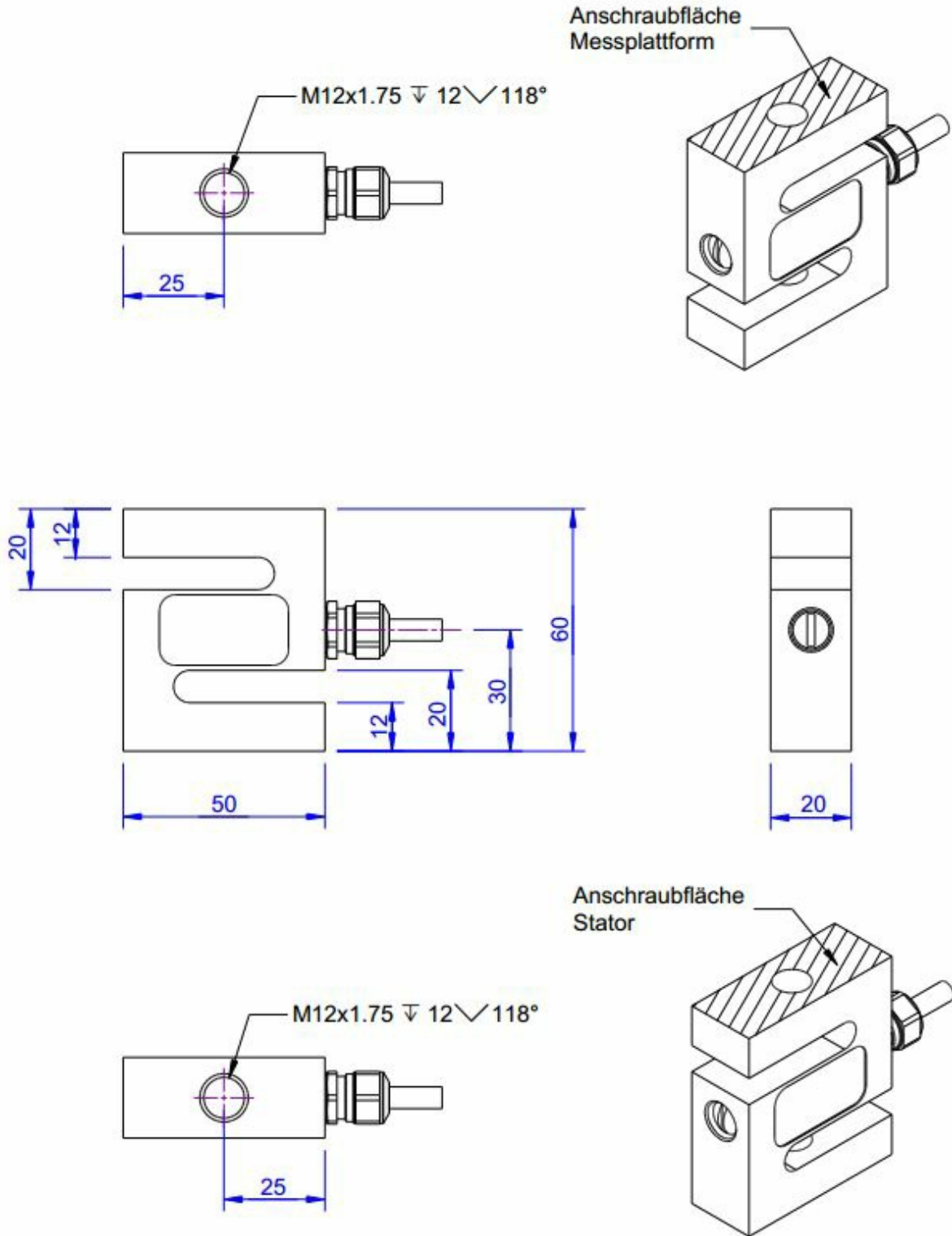
Anschraubfläche
Messplattform



Anschraubfläche
Stator









Technical Data

Kraftsensoren

Type	Force sensor
Operating force	150 %FS
Rated displacement	0.2 mm
Material	Stainless steel

Elektrische Daten

Input resistance	400 Ohm
Tolerance input resistance	50 ±
Output resistance	350 Ohm
Tolerance output resistance	10 ±
Insulation resistance	5x10 ⁹ MOhm
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	2 mV/V / FS

Precision

Accuracy class	0,1%
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

Connection Data

Connection type	6 conductor open
Name of the connection	von Variante abhängig
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

ME-Meßsysteme GmbH
Neuendorfstr. 18a
DE-16761 Henningsdorf

Tel +49 (0)3302 7 86 20 60
Fax +49 (0)3302 7 86 20 69

Mail info@me-systeme.de
Web www.me-systeme.de



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

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



Pin Configuration

Channel	Symbol	Description	Wire colour	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

Channel	Symbol	Description	Wire colour	PIN
	+Us	positive bridge supply	red	
	-Us	negative bridge supply	black	
	+Ud	positive bridge output	green	
	-Ud	negative bridge output	yellow	
	+Uf	positive sense lead	blue	
	-Uf	negative sense lead	white	

Pressure load : positive output signal



Orderoptions

Type	Description
KD80s	stainless steel, temperature range -10 ... +70 °C (standard type)
KD80s HT	