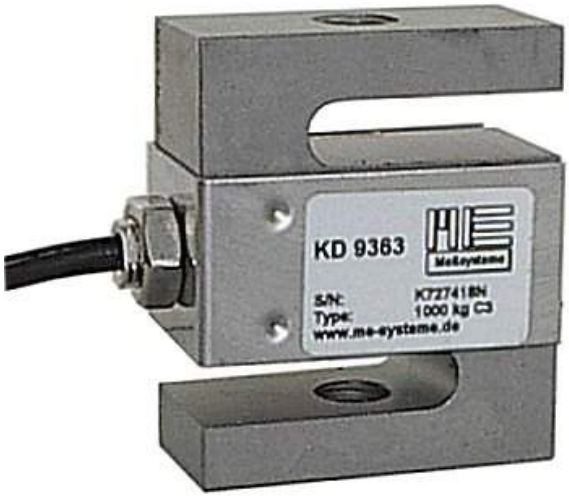
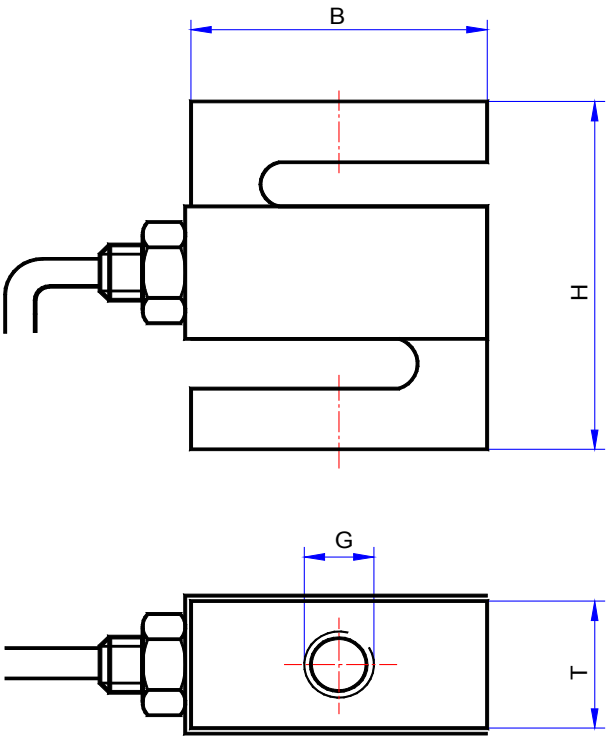
Force Sensor KD9363S

Nominal load ranges (tension/compression) 50kg, 100kg, 250kg, 500kg, 1.0t, 2.5t, 5.0t, 7.5t, 10t

The force sensor KD9363S 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 KD9363S conforms to the stringent European requirements for use in calibration-obligatory weighing scales.
The method of protection is IP67.

Dimensions





Nominal load	B	H	T	G
50 kg	50.8	61.0	11.7	M8 x 1.25
100 kg	50.8	61.0	11.7	M8 x 1.25
250 kg	50.8	61.0	18.0	M12 x 1.75
500 kg	50.8	61.0	18.0	M12 x 1.75
1 t	50.8	61.0	24.4	M12 x 1.75
2.5 t	76.2	99.1	24.4	M20 x 1.5
5 t	74.7	99.1	30.7	M20 x 1.5
7.5 t	87.4	139.7	37.1	M24 x 2
10 t	112.8	177.8	42.9	M30 x 2

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Technical Data

Force sensor	tension / compression
Construction	double bending beam / shearing force
Material	1.4542
Accuracy classes	CC (0.1%) C1 (0.06%) C2 (0.05%), C3 (0.04%)
Nominal loads (F_N)	50kg...10t

Accuracy class according to OIML R60	CC	C1	C2	C3	
Maximum scale division value		1000	2000	3000	
Minimum scale division value		S_N/ 4500	S_N/ 6000	S_N/ 9000	
Combined error	< ±0.05	< ±0.03	< ±0.023	< ±0.02	%S_N
Zero point return error (30 min)	< ±0.02	< ±0.02	< ±0.01	< ±0.01	%S_N
Creep error (30 min)	< ±0.06	< ±0.049	< ±0.0245	< ±0.0167	%S_N
Temperature coeff. of the zero signal	< ±0.025	< ±0.0140	< ±0.0112	< ±0.0070	% F_N/ 5°C
Temperature coeff. of the nominal output	< ±0.025	< ±0.0085	< ±0.0060	< ±0.0050	% S_N/ 5°C

Operating load	150	% F_N
Breaking load	250	% F_N
Maximum lateral load	100	% F_N

Nominal temperature range	+10...+40	°C
Operating temperature range	-40...+80	°C
Storage temperature range	-40...+90	°C

Nominal output (S_N)	3.3 ±0.3	mV/ V
Zero signal tolerance	±1	% F_N
Max. supply voltage	10	V
Input resistance	390 ±15	Ohm
Output resistance	350 ±3.5	Ohm
Insulation resistance	> $5 \cdot 10^9$	Ohm
Connection, 4 conductor open	6	m

Pin Configuration

+U_S	positive bridge supply	red
-U_S	negative bridge supply	black
+U_D	positive bridge output	green
-U_D	negative bridge output	white

Compressive load: negative output signal