

K3D60 $\pm 20\text{N}$

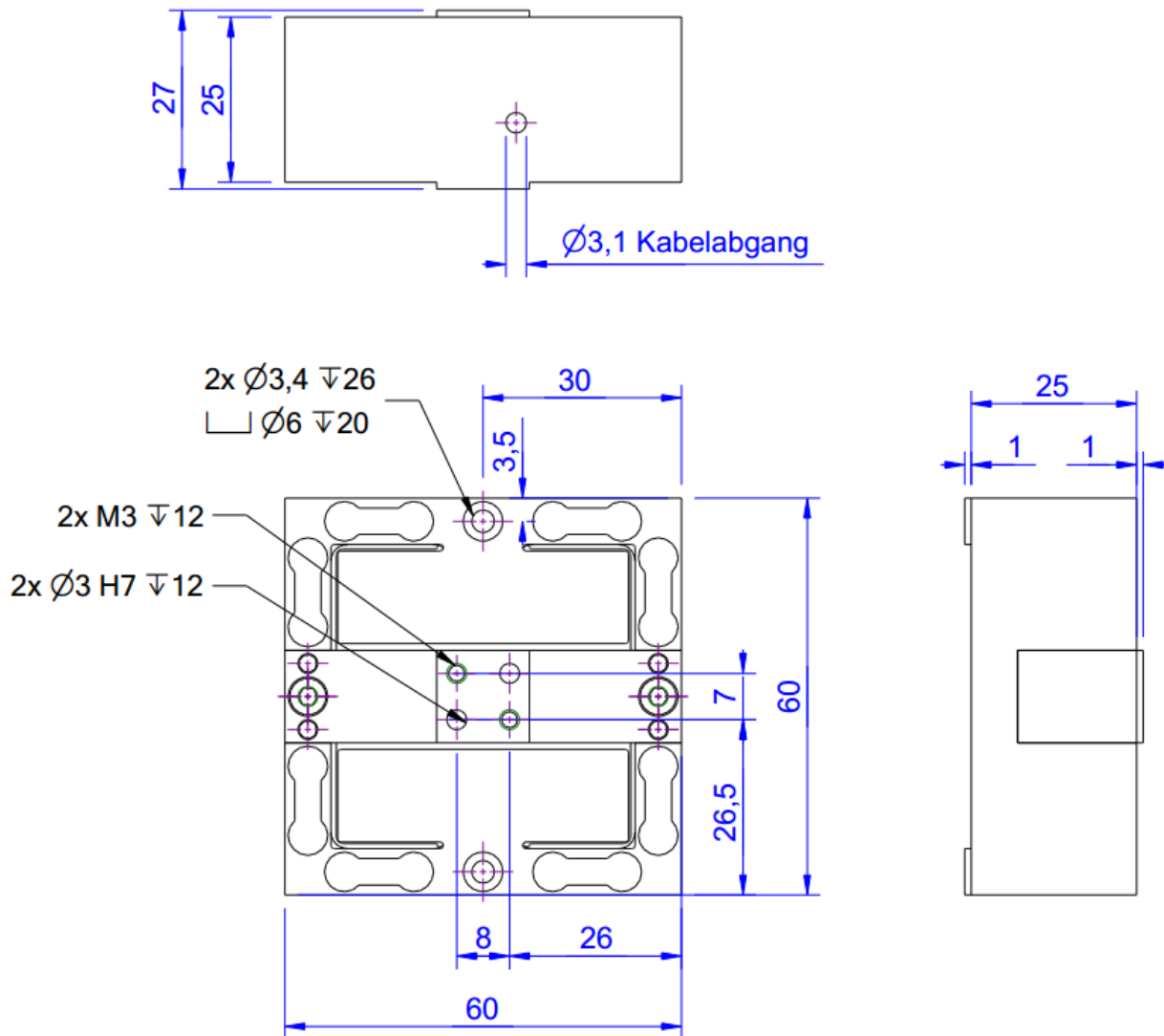


Description

The K3D60 three-axis sensor is suitable for measuring force on three mutually perpendicular axes.

The sensor K3D60 (11/2009 ... 02/2016) 2016 was replaced by the successor model [K3D60a](#).

Dimensions



Technical Data

Force sensor

Type	3-axis force sensor	
Force direction	Tension / Compression	
Rated force Fx	20	N
Rated force Fy	20	N
Rated force Fz	20	N
Force introduction	Inner thread	
Dimension 1	2x M3x0,5	
Sensor Fastening	Through bore	
Dimension 2	2x Ø3,2	
Operating force	150	%FS
Material	Aluminium alloy	
Dimensions	60 x 60 x 27	mm x mm x mm
Height	27	mm
Length or Diameter	60	mm

Precision data

Accuracy class	1%
Relative linearity error	0.2 % FS
Relative zero signal hysteresis	0.02 % 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	12 conductor open
Name of the connection	STC-32T-12
Cable length	3 m

Eccentricity and Crosstalk

Influence of eccentric load to FS	1 % FS / 50mm
Crosstalk from x to y at rated load	2 % FS
Crosstalk from y to x at rated load	2 % FS
Crosstalk from z to x/y at rated load	2 % FS

Environmental data

Rated temperature range f	-10 ... 70 °C
Operating temperature range f	-10 ... 85 °C
Storage temperature range f	-10 ... 85 °C
Environmental protection	IP65

Electrical Data

Rated output x-axis	0.5 mV/V / FS
Rated output y-axis	0.5 mV/V / FS

Rated output z-axis	0.5	mV/V / FS
Zero signal	0.1	mV/V
Rated range of excitation voltage f	2.5 ... 5	V
Operating range of excitation voltage f	1 ... 10	V
Input resistance x-axis	710	Ohm
Output resistance x-axis	710	Ohm
Input resistance y-axis	710	Ohm
Output resistance y-axis	710	Ohm
Input resistance z-axis	710	Ohm
Output resistance z-axis	710	Ohm
Insulation resistance	> 5 x10 ⁹	Ohm
Tolerance input resistance	10	Ohm
Tolerance output resistance	10	Ohm

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

1) The exact rated output is reported in the test report .

Pin Configuration

Channel	Symbol	Description	Wire colour
1	+Us	positive bridge supply	brown
	-Us	negative bridge supply	white
	+Ud	positive bridge output	green
	-Ud	negative bridge output	yellow
2	+Us	positive bridge supply	pink
	-Us	negative bridge supply	grey
	+Ud	positive bridge output	blue
	-Ud	negative bridge output	red
3	+Us	positive bridge supply	purple
	-Us	negative bridge supply	black
	+Ud	positive bridge output	orange
	-Ud	negative bridge output	transparent

Pressure load: positive output signal.

Shield- transparent.

accessories

Description		Description
	GSV-1A4 SubD37/2	4-channel strain gauge measuring amplifier for sensors with strain gauges. Adaptation of the sensor via Sub-D-37 connector . Output $\pm 10V$ and 4 ... 20mA via 15-pin SUB-D (female); Input sensitivity 2mV/V;
	GSV-4USB SubD37	4-channel strain measurement amplifier with USB port with configurable input for strain gauges, temperature sensors, active sensors, displacement sensors and other sensors. Sensor connection via 1 piece Sub D37 connector