

Data sheet for Load Cells

Mini S-Beam

Series KM019



- Mini S-Beam
- 3 measuring ranges: 0.. 10N, 20N, 45N
- Dimensions 19.0 x 17.5 mm
- Force transmission via thread M3 or 4-40UNC
- Full bridge strain gauge
- Aluminium body

The KM019 series force sensors are easy to install. Their compact design makes them a ideal for applications in confined spaces where precise measurement of small forces is required.

Application examples: Measurement of small forces in production, dosing and assembly processes in automation and robotics.

Data Load Cell

Rated force (F _{nom.})	10 N, 20 N, 45 N
Safe Overload	≤ 1000 % F _{nom.}
Rated characteristic value	2.0 ± 0,5 mV/V @ F _{nom.}
Excitation voltage	10 V DC/AC (max 20 V DC/AC)
Relative linearity error	≤ 0.3 % F _{nom.}
Hysteresis	≤ 0.3 % F _{nom.}
Relative repeatability error	≤ 0.1 % F _{nom.}
Rated displacement @ F _{nom.}	< 0.1 mm
Relative deviation of zero signal	≤ 3,0 % F _{nom.}
Rated temperature range	15 °C up to +70 °C
Operating temperature range	-30 °C up to +85 °C
Temperature effect on characteristic value	≤ 0.04 % F _{nom.} / K
Temperature effect on zero signal	≤ 0.02 % F _{nom.} / K
Input resistance	387 ± 50 Ω
Output resistance	350 ± 5 Ω
Insulation resistance	≥ 5 GΩ @ 50 V DC
Protection	IP30
Cable. length / diameter	ca. 1.5 m / 2.3 mm
Connection	4 x AWG28
Material Body	Aluminium
Mass	ca. 20g

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Order code

Description	Selection: standard=black/bold , possible <i>options=grey/italic</i>			
Series:	KM019			
Connecting cable: Cable length 1,5 m		K		
Rated force: 10 N 20 N 45 kN			10N 20N 45N	
Thread: M3 <i>4-40UNC</i>				- U
Example order code: KM019 K 20N U (rated Force 20N, 4-40UNC-thread)				

Accessories (not included)

IMA2 DMS External measuring amplifier with analogue output (0..10V, 4.. 20 mA , etc.)

For higher quantities or ongoing demand, additional options as described below are available on request.

For example:

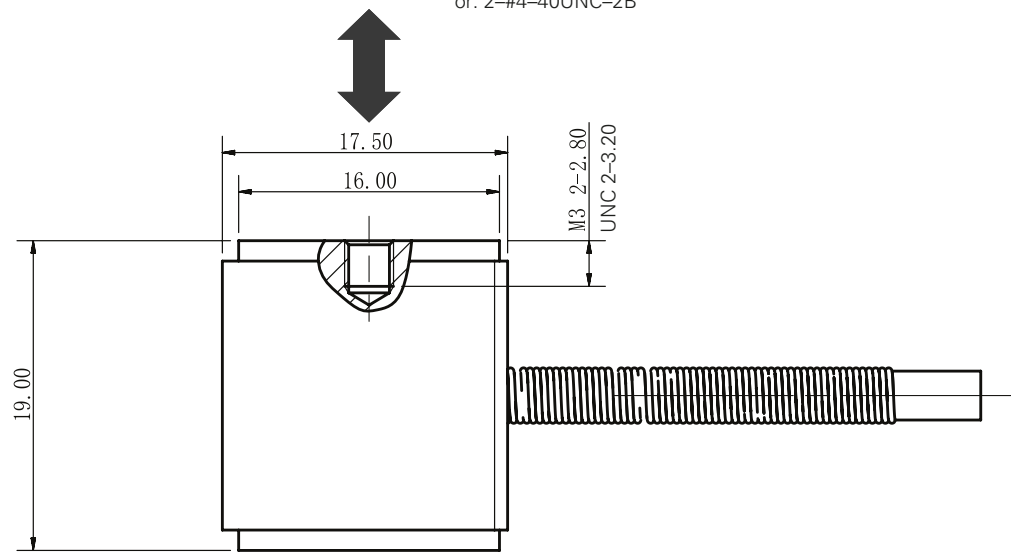
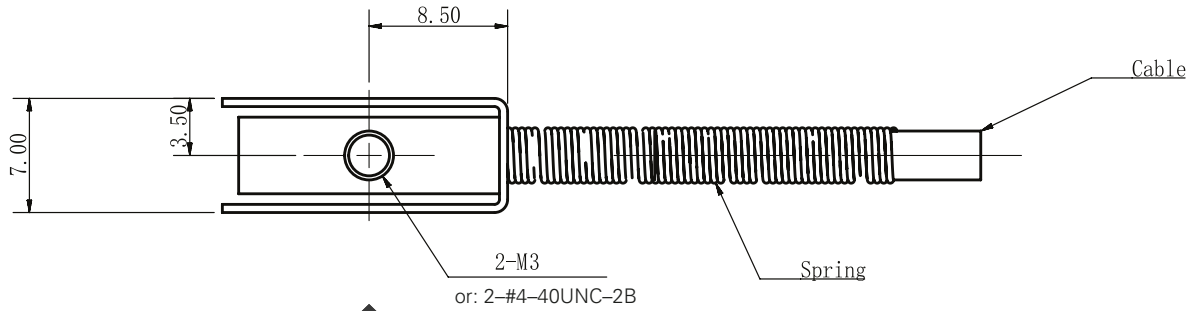
- Modified cables with or without connectors
- Modified mounting threads
- 6-wire connection
- Higher rated force up to 450 N with stainless steel construction

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Drawing



Dimensions in mm

Cable assignment	
For tension:	
Red:	+input
Black:	-input
White:	+output
Green:	-output
For pressure:	
Red:	+input
Black:	-input
White:	-output
Green:	+output

