

Data sheet for Load Cells

S-Beam Load Cells with Electronics

Series KT1503



- S-beam with integrated digital transducer
- Strain gauge principle
- Aluminium alloy
- Output 0..10 V, 4..20 mA @24 VSUP
- Force transmission via M12-thread for 1 kN .. 10 kN
- Easy to install, stable and reliable

Series KT1503 force transducer is a all-purpose S-beam load cell. Suitable for batching systems, package systems, etc.

Data Load Cell

Rated force	1 kN, 2 kN, 5 kN, 10 kN
Rated characteristic value 2410 / 2442	10 V / 20 mA @ rated force
Relative error of characteristic value	≤ 10 % of rated output
Relative repeatability error	≤ 0.03 % of rated output
Relative reversibility error	≤ 0.03 % of rated output
Relative linearity error	≤ 0.1 % of rated output
Reference straight line	≤ 0.03 % of rated output
Relative deviation of zero signal	≤ 3 % of rated output
Rated displacement	≤ 0.3 mm
Insulation resistance	≥ 5 GΩ @ 50 VDC
Maximum operating force	≤ 150 % of rated force
Rated range of excitation voltage	24 VDC
Operating range of excitation voltage	12 - 36 VDC
Rated temperature range	-10 °C..+50 °C
Operating temperature range	-10 °C..+70 °C
Protection	IP40
Temperature effect on characteristic value	≤ 0.02 % of output / 10 K
Temperature effect on zero signal	≤ 0.02 % of rated output / 10 K
Creep under load	≤ 0.03 % of rated output
Cable dimension	3 x AWG28; shielded
Cable length from body	ca. 2.75 m
Body material	Aluminium alloy

Terms according to guideline VDI / VDE / DKD 2638

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Order code

Description					
Selection: standard=black/bold, possible options=grey/cursive					
Series:	KT1503				
Connecting cable: Cable length ca. 2.75 m		K			
Rated force:					
Option 1 kN			<i>1kN</i>		
Option 2 kN			<i>2kN</i>		
5 kN			5kN		
Option 10 kN			<i>10kN</i>		
Electronics:					
24 VSUP 0..10 V Output				2410	
24 VSUP 4..20 mA Output				2442	
Direction of force:					
Tension					Z
Pressure					D

For higher quantities or on-going demand, additional options are available as described below on request

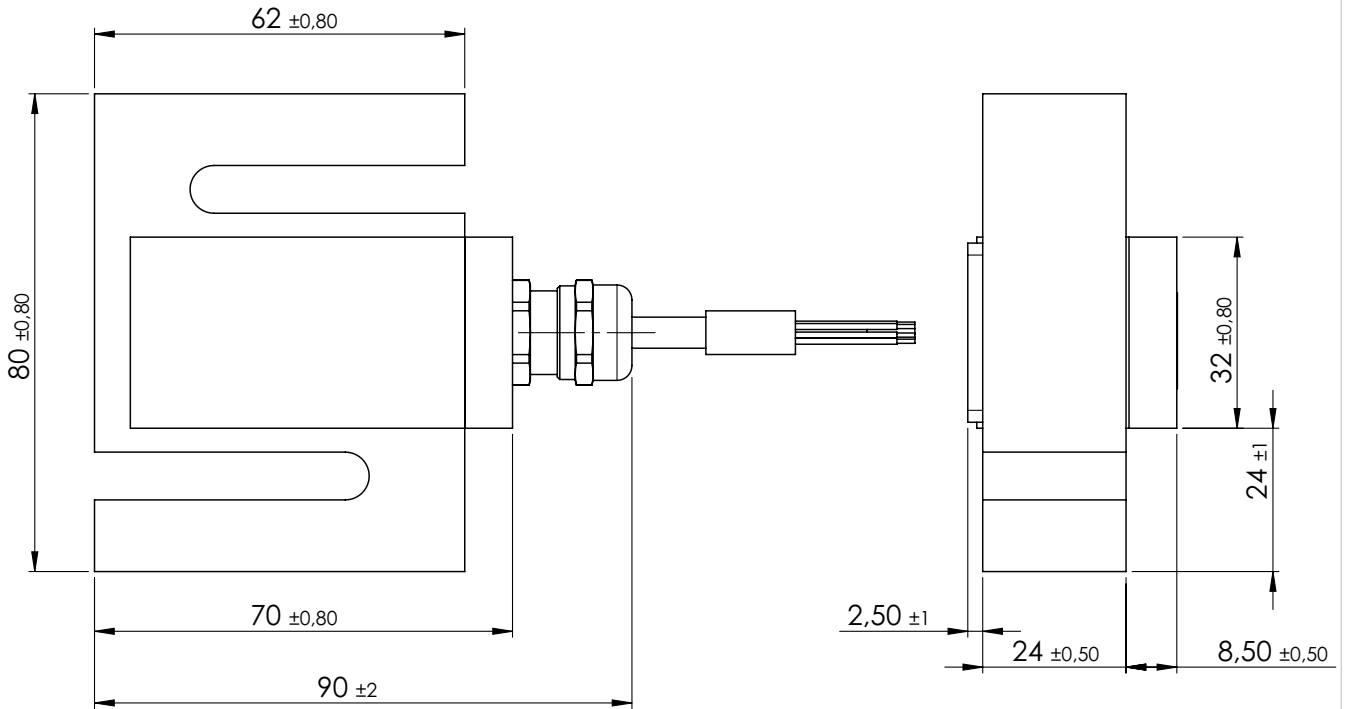
For Example: Attach cable assemblies with or without connectors, output signals with PWM or SPI and much more.

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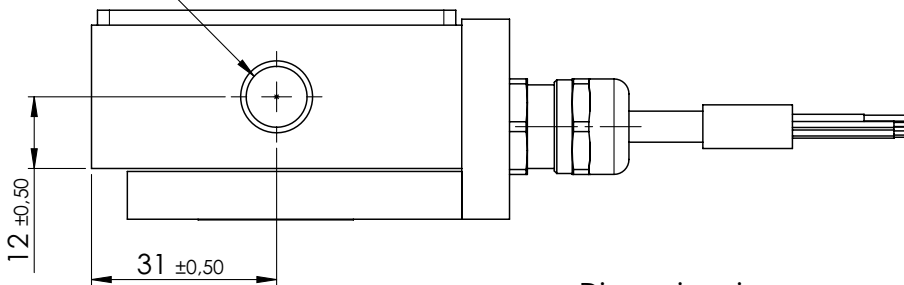
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Drawing



M12 (x2)



Dimensions in mm

Terminal assignment for 10 V (2410)	
Black	GND
Red	VSUP
Brown	(+) OUT
Shield	on housing

Terminal assignment for 4..20 mA (2442)	
Black	GND
Red	VSUP
Orange	(+) OUT
Shield	on housing