

# Data sheet for Load Cells

## Shear Beam with Electronics

## Series KT803



- Compact shear beam with integrated digital transducer
- Output 0..10V, 4..20 mA @24 VSUP
- Force transmission via M8-thread
- Strain gauge
- Steel measuring body

Series KT803 force sensors are double bending beam sensors and characterized by its tight shape and its easy way of fastening. It could be fixed with 2 screws at any flat and stable ground. Force application is vertical to sensor-axis.

### Data Load Cell

Rated force	2 kN, 5 kN
Rated characteristic value 2410 / 2442	10 V / 20 mA @ rated force
Relative error of characteristic value	≤ 10 % of rated output
Relative repeatability error	≤ 0.05 % of rated output
Relative reversibility error	≤ 0.05 % of rated output
Relative linearity error	≤ 0.2 % of rated output
Reference straight line	≤ 0.05 % of rated output
Relative deviation of zero signal	≤ 1 % 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..+40 °C
Operating temperature range	-10 °C..+70 °C
Protection	IP40
Temperature effect on characteristic value	≤ 0.05 % of rated output / 10 K
Temperature effect on zero signal	≤ 0.05 % of rated output / 10 K
Creep under load	≤ 0.05 % of rated output
Cable dimension	3 x AWG28; shielded
Cable length from body	ca. 2.75 m
Body material	Nickel-plated alloy steel
Mass	400g

Terms according to guideline VDI / VDE / DKD 2638

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## Order code

Description	Selection: standard=black/bold, possible options=grey/cursive				
Series:	<b>KT803</b>				
Connecting cable: Cable length 2.75 m		<b>K</b>			
Rated force: 2 kN 5 kN			<b>2kN 5kN</b>		
Electronics: 24 VSUP 0..10 V Output 24 VSUP 4..20 mA Output				<b>2410 2442</b>	
Direction of force: Tension Pressure					<b>Z D</b>

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

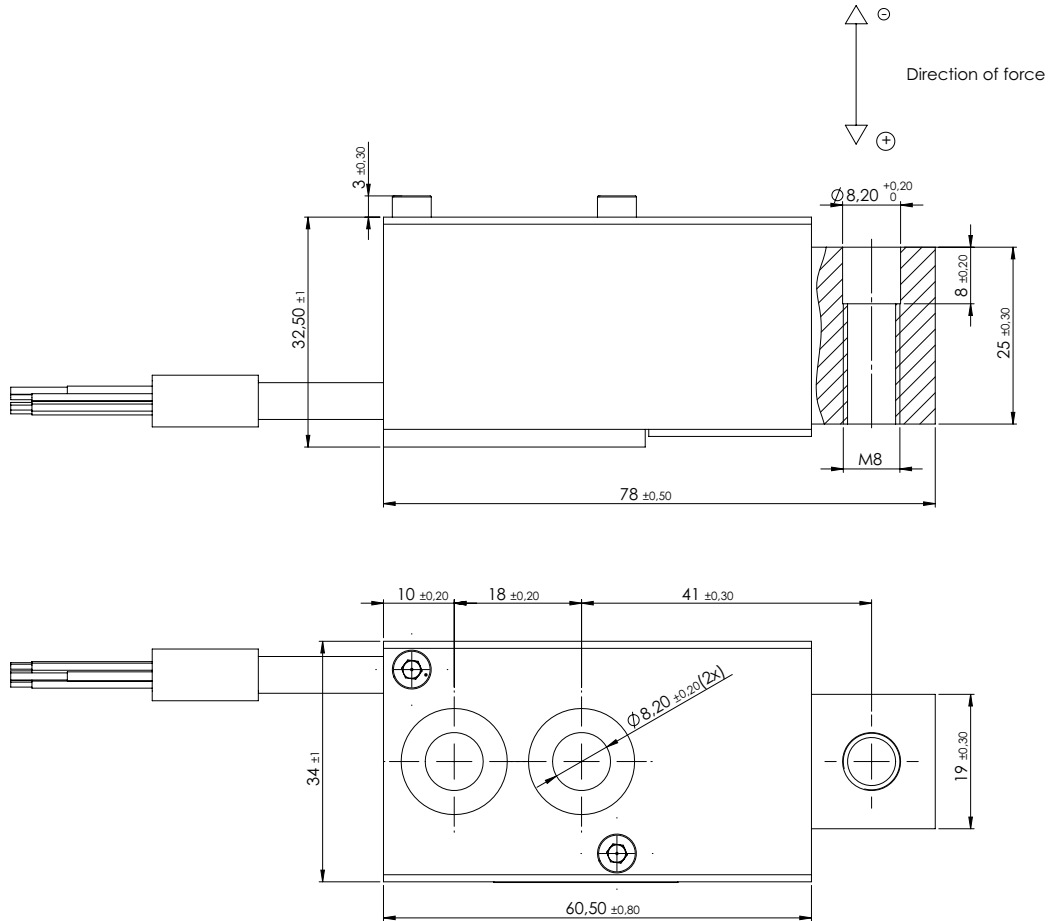
For Example: Attach cable assemblies with or without connectors, output signals with PWM or SPI and much more.

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## Drawing



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