

# Data sheet for Load Cells

Shear Beam with integrated amplifier electronics

Series KT703



- Compact shear beam with integrated digital amplifier
- Analogue output options 0..10 V, 4..20 mA
- Force transmission via M5-thread
- Strain gauge full bridge
- Test protocol available

The KT703 force sensors are easy to install. They can be mounted with 2 screws to any flat and stable surface. Their compact size makes them a good choice even where space is at a premium.

Application examples: Force measurement in assembly processes in automation, motion control in handling systems.

## Data Load Cell

Rated force ( $F_{nom.}$ )	200 N, 500 N, 1000 N
Maximum operation force	$\leq 150 \% F_{nom.}$
Output signal options	0...10 V   4..20 mA
Rated supply voltage	24 VDC
Operating range of supply voltage	12 - 36 VDC
Relative linearity error	$\leq 0.2 \% F_{nom.}$
Hysteresis	$\leq 0.05 \% F_{nom.}$
Relative repeatability error	$\leq 0.05 \% F_{nom.}$
Relative deviation of zero signal	$\leq 1,0 \% F_{nom.}$
Relative Deviation of signal @ $F_{nom.}$	$\leq 1,0 \%$
Relative creep (30min.)	$\leq 0.05 \% F_{nom.}$
Rated displacement	$\leq 0.3 \text{ mm @ } F_{nom.}$
Rated temperature range	-10 °C up to +40 °C
Operating temperature range	-10 °C up to +70 °C
Temperature effect on output	$\leq 0.05 \% F_{nom.} / 10 \text{ K}$
Temperature effect on zero signal	$\leq 0.05 \% F_{nom.} / 10 \text{ K}$
Protection	IP40
Insulation resistance	$\geq 5 \text{ G}\Omega @ 50 \text{ VDC}$
Cable, -length / -diameter	2,75 m / $\varnothing 5,6 \text{ mm}$
Electrical connection	3 x AWG28; shielded (shield connected to body)
Material, -body / -housing	Aluminium / Steel with paint finish
Mass	180 g

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## Order code

<b>Description</b>						
<b>Series</b>	KT703					
<b>Connecting cable: Cable length 2.75 m</b>		K				
<b>Rated force: 200 N 500 N 1000 N</b>			200N 500N 1kN			
<b>Output signal: 0..10 V 4..20 mA</b>				2410 2442		
<b>Direction of force: Tension Pressure</b>					Z D	
<b>Test protocol</b>						P
Order code example: KT703 K 200N 2410 Z						

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

For example:

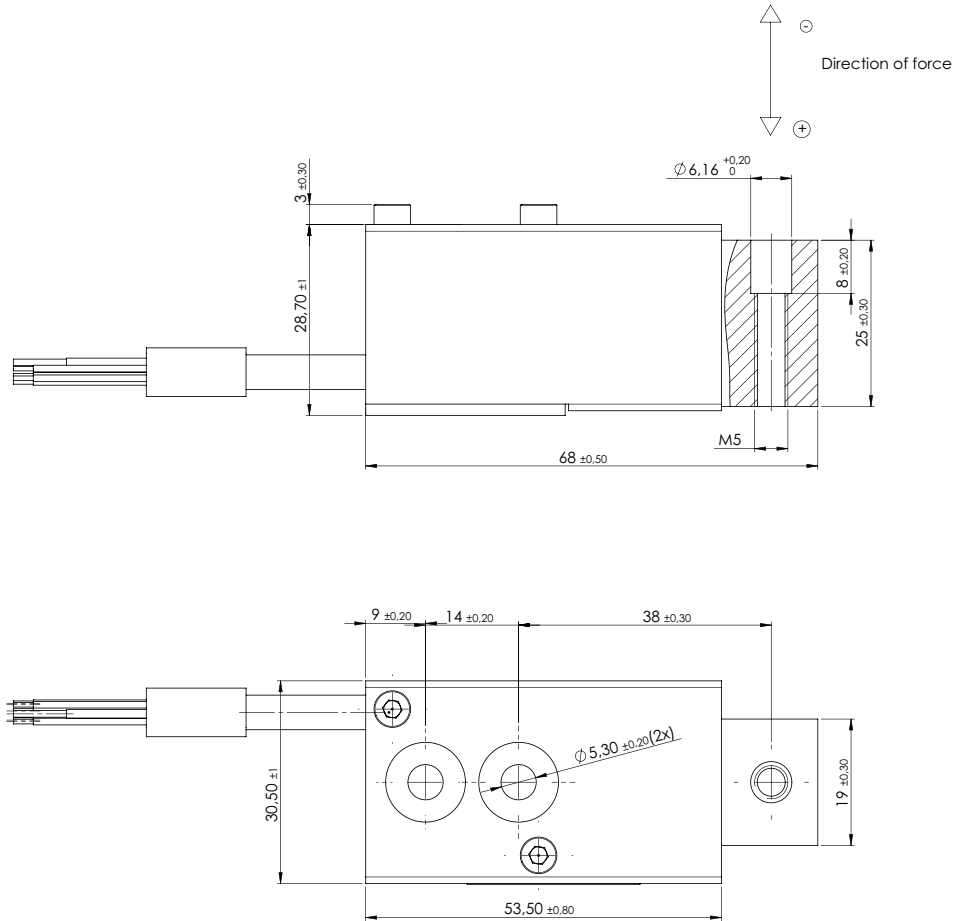
- modified cable with or without connectors
- customer specific calibration range
- modified mounting holes or threads

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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