SERIES KT1403

S-BEAM LOAD CELLS WITH ELECTRONICS

- S-beam with integrated digital transducer
- Strain gauge principle
- Aluminium alloy
- Output 0..10 V, 4..20 mA @24 VSUP
- Force transmission via M8-thread
- Test protocol available
- Easy to install, stable and reliable

GENERAL SPECIFICATION

- In the KT1403 series force transducers, the force is applied via the M8 female thread for measuring ranges up to 1 kN. The transducers are based on the S-Beam principle. The force is applied via the internal thread for compressive or tensile forces. The aluminium measuring body is available from the measuring range of 50 N…1 kN in an independent design. The load cell has an integrated digital signal converter and provides output signals of 0...10 V, 4...20 mA @ 24 VSUP. The Wheatstone strain gauge full bridge measuring principle has been tried and tested for decades in this type of force sensor and ensures a long service life.

- Application examples: Measurement of forces in assembly processes inautomation, control of motion sequences in handlingsystems. Suitable for batching and packaging systems

KT1403 Specidfications					
Rated force (Fnom.)	50N	100N	200N	500N	1KN
Maximum operating force	≤ 150 % of rated force (Fnom.)				
Output signal options	0...10 V / 4...20 mA				
Rated supply voltage	24VDC				
Operating range of supply voltage	12 - 36 VDC				
Relative linearity error	≤ 0,5 % Fnom.				
Hysteresis	≤ 0,05 % Fnom.				
Relative repeatability error	≤ 0,05 % Fnom.				
Relative deviation of zero signal	≤ 1 % Fnom.				
Relative deviation of signal @ Fnom.	≤ 1,0 %				
Relative creep (30 min.)	≤ 0.05 % Fnom				
Rated displacement @ Fnom	≤ 0.3 mm				
Rated temperature range	-10 °C..+40 °C				
Operating temperature range	-10 °C..+70 °C				
Temperature effect on characteristic value	≤ 0.05 % Fnom. / 10 K				
Temperature effect on zero signal	≤ 0.05 % Fnom. / 10 K				
Insulation resistance	≥ 5 GΩ @ 50 VDC				
Protection	IP30				
Cable dimension	3 x AWG28; shielded (shield connected to body)				
Cable length from body	ca. 2.75 m				
Body material	Aluminium alloy				

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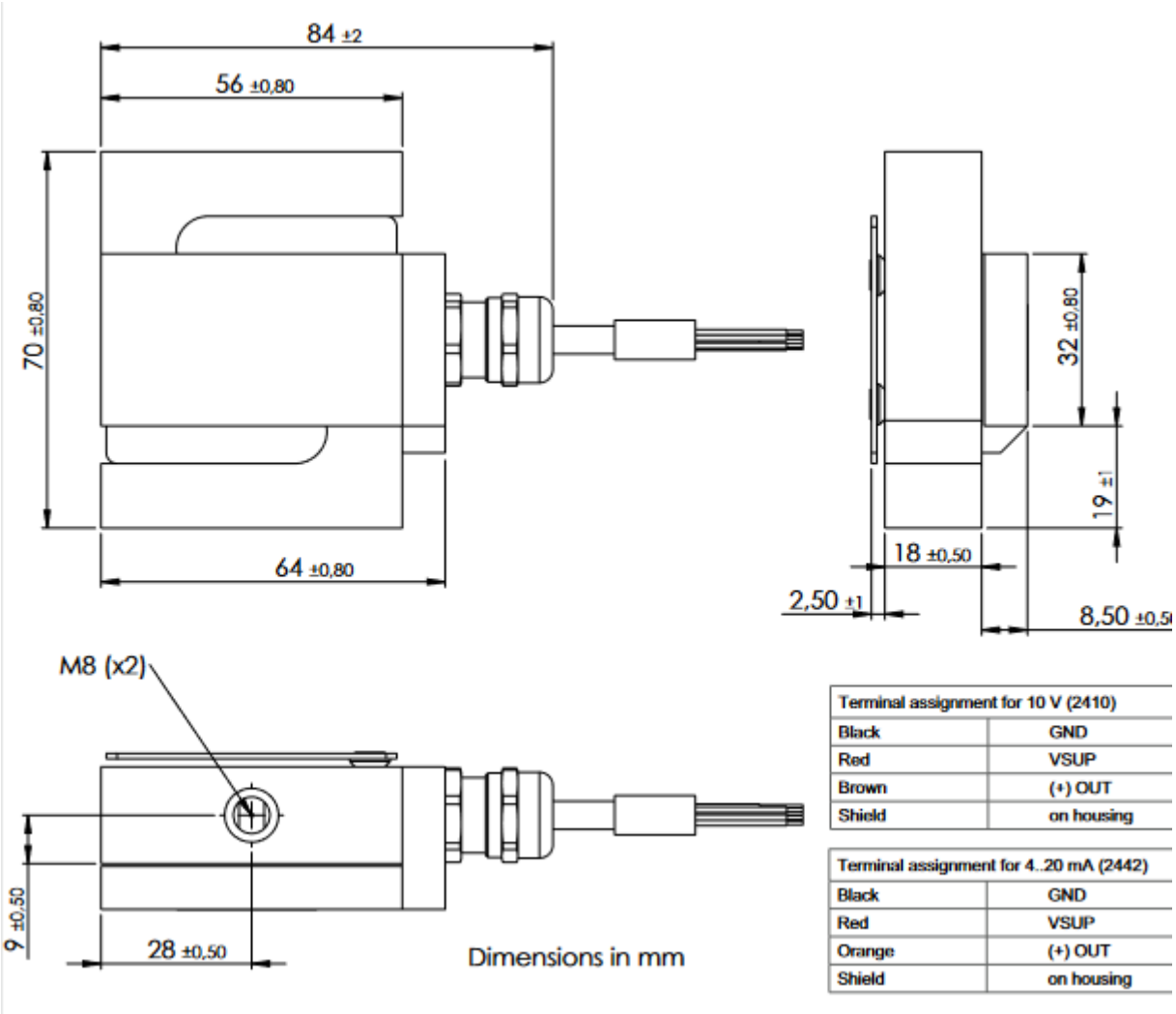
Order code						
Series	KT1403					
Connecting cable: **Cable length 2.75 m**		K				
Rated force:			50N 100N 200N 500N 1kN			
Electronics: **24 VSUP 0..10 V Output** **24 VSUP 4..20 mA Output**				2410 2442		
Direction of force: **Tension** **Pressure**					Z D	
Test protocol						P

DRAWING :



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

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