

# Data sheet for Load Cells

Shear Beam

Series KM701



- Compact shear beam
- 3 measuring ranges: 200 N, 500 N, 1000N
- Force transmission via M5-thread
- Strain gauge full bridge

Series KM703 force sensors are easy to install. They can be fixed with 2 screws at any flat and stable ground. Thanks to their compact dimensions, the force sensors are a good choice even in tight installation conditions.

Application examples: Measurement of forces in assembly processes in automation, control of motion sequences in handling systems.

## Data Load Cell

Rated force (F <sub>nom.</sub> )	200 N, 500 N, 1000 N
Maximum operation force	≤ 150 % F <sub>nom.</sub>
Rated characteristic value	2,0 ± 0,2 mV/V @ F <sub>nom.</sub>
Excitation voltage	10 V DC / AC (max 15V DC / AC)
Relative linearity error	≤ 0.05 % F <sub>nom.</sub>
Hysteresis	≤ 0.05 % F <sub>nom.</sub>
Relative repeatability error	≤ 0.05 % F <sub>nom.</sub>
Rated displacement @ F <sub>nom.</sub>	≤ 0.3 mm
Relative creep (30 min.)	≤ 0.05 % F <sub>nom.</sub>
Relative deviation of zero signal	≤ 3 % F <sub>nom.</sub>
Rated temperature range	-10 °C up to +40 °C
Operating temperature range	-10 °C up to +70 °C
Temperature effect on characteristic value	≤ 0.05 % F <sub>nom.</sub> / 10 K
Temperature effect on zero signal	≤ 0.05 % F <sub>nom.</sub> / 10 K
Input resistance	410 ± 20Ω
Output resistance	350 ± 3Ω
Insulation resistance	≥ 5 GΩ @ 50 V DC
Protection	IP40
Cable length / dimension	ca. 1.75 m / Ø4.6 mm
Connection	4 x AWG26
Material Body / Housing	Aluminium / Steel with paint finish
Mass	ca. 170 g

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## Order code

<b>Description</b>			
<b>Series:</b>	<b>KM701</b>		
<b>Connecting cable: Cable length 1,75 m</b>		<b>K</b>	
<b>Rated force:</b>			
200 N			<b>200N</b>
500 N			<b>500N</b>
1 kN			<b>1kN</b>

## Accessories (not included)

<b>Measuring amplifier</b>	IMA2 DMS
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**For higher quantities or on-going demand, additional options are available as described below on request**

For Example:

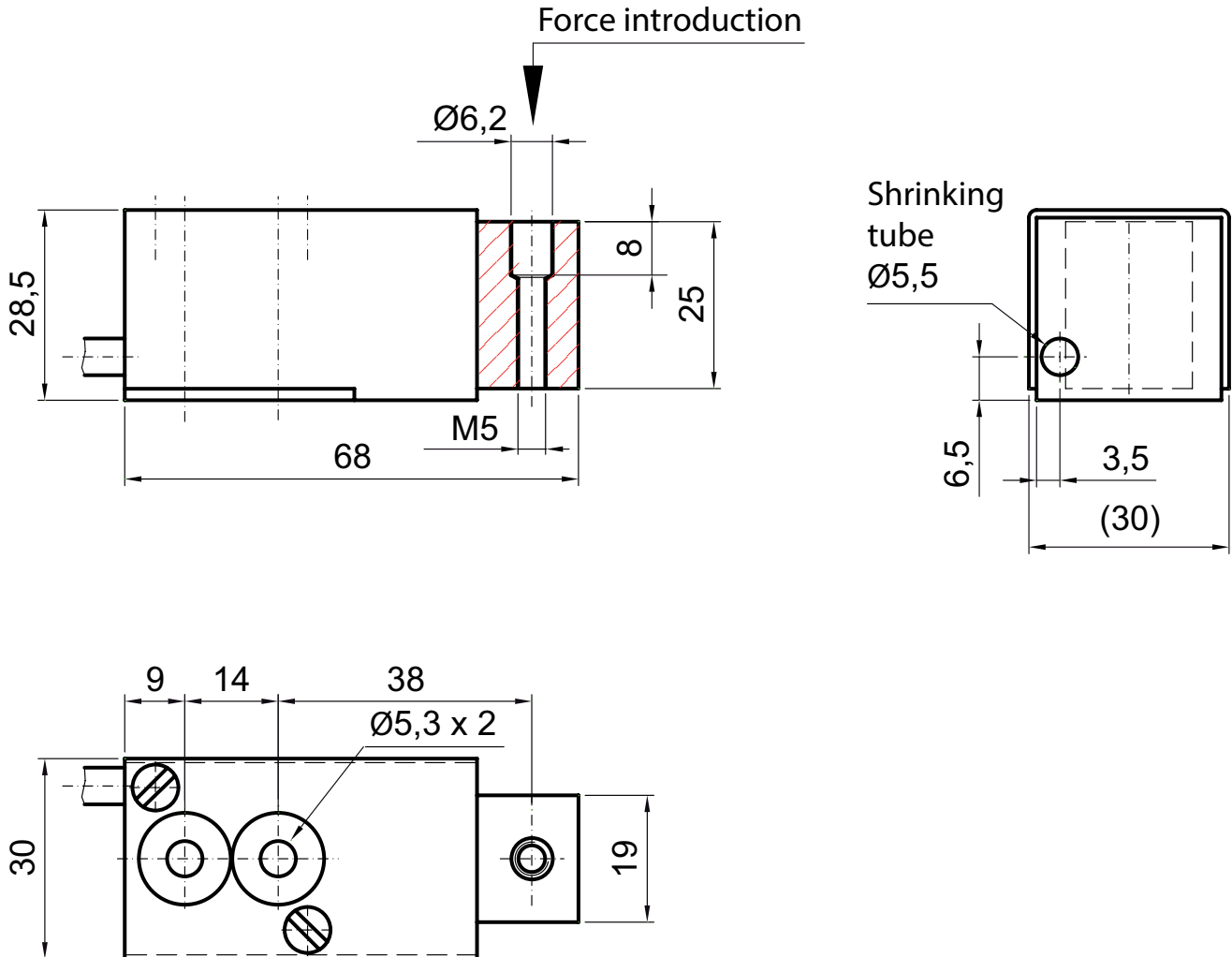
- modified cable with or without connectors
- modified mounting holes or threads
- 6-wire connection

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## Drawing



Dimensions in mm

### Cable assignment

For pressure:

Brown: +input  
 Yellow: -input  
 Green: +output  
 White: -output

For tension:

Brown: +input  
 Yellow: -input  
 Green: -output  
 White: +output

### Connection diagram pressure

