

# Data sheet for Load Cells

Shear Beam

Series KM701



- Compact shear beam
- Force transmission via M5-thread for 200N..1kN
- Strain gauge
- Aluminium alloy
- Calibration including measurement data

Series KM701 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	200N, 500N, 1000N
Rated characteristic value	2,0 mV / V of rated output
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	≤ 0,05 % of rated output
Reference straight line	≤ 0,05 % of rated output
Relative deviation of zero signal	≤ 3 % of rated output
Input resistance	410 ±20Ω
Output resistance	350 ±3Ω
Insulation resistance	≥ 5 GΩ @ 50 V DC
Maximum operating force	≤ 150 % of rated force
Rated range of excitation voltage	10 V DC / AC
Operating range of excitation voltage	≤ 15 V DC / AC
Rated temperature range	-10 °C .. +70 °C
Operating temperature range	-10 °C .. +40 °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	4 x AWG26 Ø4,6 mm
Cable length from body	ca. 1,75 m
Body material	Aluminium
Mass	ca. 170 g

Terms according to guideline VDI / VDE / DKD 2638

# Data sheet for Load Cells

Shear Beam

Series KM701

## Order code

<b>Description</b>	Selection: standard=black/bold, possible options=grey/cursive		
<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)

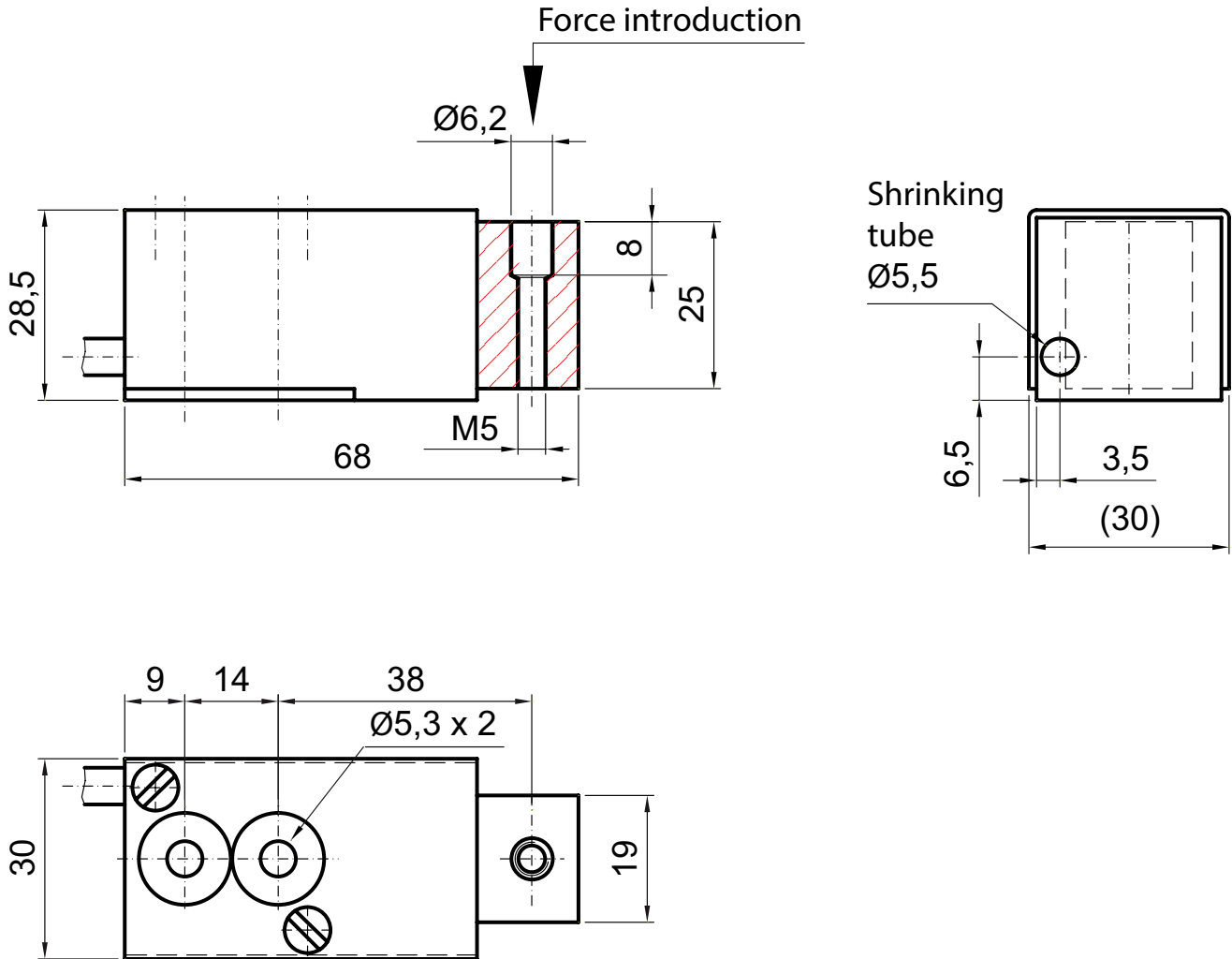
<b>Measuring amplifier</b>	<b>IMA2 DMS</b>
----------------------------	-----------------

# Data sheet for Load Cells

Shear Beam

Series KM701

## 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

