

# Data sheet for Load Cells

Button Load Cells

Series KMB51



- Measuring range up to 110 kN
- Strain gauge full bridge
- Stainless steel
- Degree of protection IP64
- Diameter 50.3 mm
- Test protocol included

The KMB51 is a compact sized button load cell, designed for 110 kN nominal load.  
Application examples: Force measurement in assembly processes and factory automation. Weight determination in various industrial sectors.

## Data load cell

Rated force $F_{nom}$	110 kN
Rated characteristic value	2.0 mV / V $\pm$ 15%
Relative linearity error	$\leq$ 0.5% $F_{nom}$
Hysteresis	$\leq$ 0.5% $F_{nom}$
Relative repeatability error	$\leq$ 0.5% $F_{nom}$
Reference straight line	$\leq$ 0.5% $F_{nom}$
Relative deviation of zero signal	$\leq$ 0.1% $F_{nom}$
Rated displacement	$\leq$ 0.15 mm
Input resistance	700 $\pm$ 50 $\Omega$
Output resistance	700 $\pm$ 50 $\Omega$
Insulation resistance	$\geq$ 500 M $\Omega$ @ 50 VDC
Maximum operating force	$\leq$ 150% $F_{nom}$
Rated range of excitation voltage	10 V DC / AC
Operating range of excitation voltage	$\leq$ 20 V DC / AC
Rated temperature range	-50 °C up to +90 °C
Operating temperature range	0 °C up to +70 °C
Protection	IP64
Temperature effect on characteristic value	$\leq$ 0.36% $F_{nom}$ / 10 K
Temperature effect on zero signal	$\leq$ 0.18% $F_{nom}$ / 10 K
Creep under load	$\leq$ 0.5% $F_{nom}$
Cable dimension	4 x AWG26, cable shielded
Cable length from body	ca. 3 m
Body material	Stainless steel (17-4 PH)
Mass	ca. 360 g

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## Order code

<b>Description</b>			
<b>Series:</b>	<b>KMB51</b>		
<b>Connecting cable: Cable length 3 m</b>		<b>K</b>	
<b>Rated force: 110 kN</b>			<b>110KN</b>

## Accessories (not included in delivery)

<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, countersinks or threads
- 6-wire connection cable

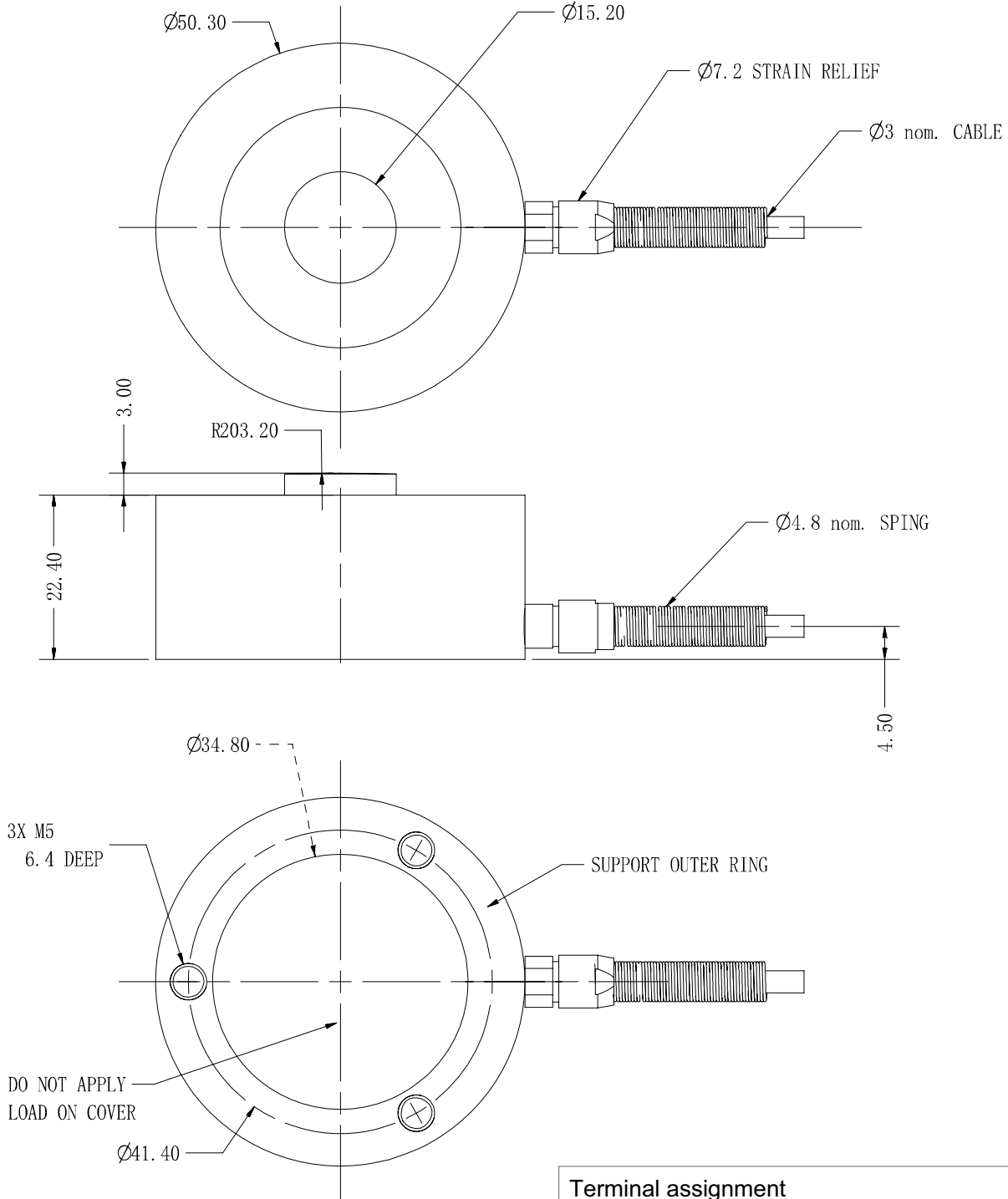
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## Drawing



Dimensions in mm

Terminal assignment	
Black	- Supply
Red	+ Supply
Green	+ Output
White	- Output