

Data sheet for Load Cells

Pancake Load Cell

Series KMC100



- Measuring ranges 50 kN, 100 kN, 200 kN, 300 kN
- Force transmission via metric thread
- 3 sizes, Ø105 x H37 ... Ø141 x H57,2
- Strain gauge
- Steel alloy
- Degree of protection IP66
- Test protocol included

Series KMC100 force transducer is an all-purpose load cell (pancake). The sensor is ideal for applications in presses, testing machines, truck scales and large container and hopper scales.

Data load cell

Rated force ($F_{nom.}$)	50kN, 100kN, 200kN, 300kN
Maximum operating force	≤ 150 % of rated force ($F_{nom.}$)
Rated characteristic value	$3,0 \pm 0,01$ mV / V
Rated excitation voltage	10 V DC / AC
Operating range of excitation voltage	≤ 15 V DC / AC
Relative linearity error	$\pm 0,03$ % $F_{nom.}$
Hysteresis	$\pm 0,03$ % $F_{nom.}$
Relative repeatability error	$\pm 0,03$ % $F_{nom.}$
Relative deviation of zero signal	± 1 % $F_{nom.}$
Relative creep (30 min.)	$\leq 0,5$ % $F_{nom.}$
Rated displacement	$\leq 0,5$ mm
Temperature effect on characteristic value	$\pm 0,02$ % $F_{nom.}$ / 10 K
Temperature effect on zero signal	$\pm 0,02$ % $F_{nom.}$ / 10 K
Rated temperature range	-10 °C .. +40 °C
Operating temperature range	-10 °C .. +70 °C
Input resistance	$387 \pm 20\Omega$ (50,100,200 kN) / $775 \pm 20\Omega$ (300 kN)
Output resistance	$350 \pm 5\Omega$ (50,100,200 kN) / $700 \pm 5\Omega$ (300 kN)
Insulation resistance	≥ 5 G Ω @ 50 V DC
Protection	IP66
Cable, -material / - dimensions	PTFE / ca. 6 m / Ø4,8 mm / shielded
Electrical connection	4 x AWG24
Body material	Alloy steel, nickel plated
Mass	ca. 3,2 kg (100 kN) ca. 5,05 kg (300 kN)

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Order code

Description	Selection: standard=black/bold , possible <i>options=grey/italic</i>		
Series:	KMC100		
Connecting cable: Cable length 6 m		K	
Rated force: 50 kN 100 kN 200 kN 300 kN			50kN 100kN 200kN 300kN

Accessories (not included in delivery)

Measuring amplifier	IMA2DMS
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For higher quantities or on-going demand, additional options are available as described below on request

For Example:

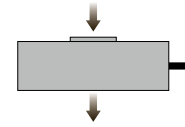
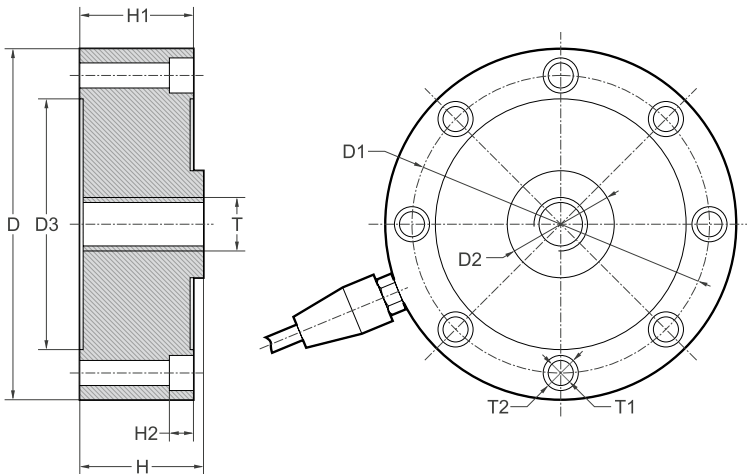
- modified cable with or without connectors
- modified mounting holes or threads
- 6-wire connection
- higher rated forces

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Drawing



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

Dimensions in mm

Capacities		D	D1	D2	D3	H	H1	H2	T	T1	T2
50kN	mm	Ø105	Ø89	Ø32	75	37	34	7.2	M16X1.5	8XØ7.5	8XØ10.5
100kN, 200kN	mm	Ø120.6	Ø101.8	Ø39	83	53.5	41	10.5	M32x1.5	8XØ8.5	8XØ14
300kN	mm	Ø141	Ø116.8	Ø50.4	96.9	57.2	50.8	11	M40x1.5	8XØ11	8XØ18