

## Load Cell KA105

Nominal load ranges (compression) 10t, 25t, 40t, 60t, 100t

The compression load cell KA105 is a fully welded, hermetically sealed four pillar construction. It is thus mostly insensitive to excentric load.

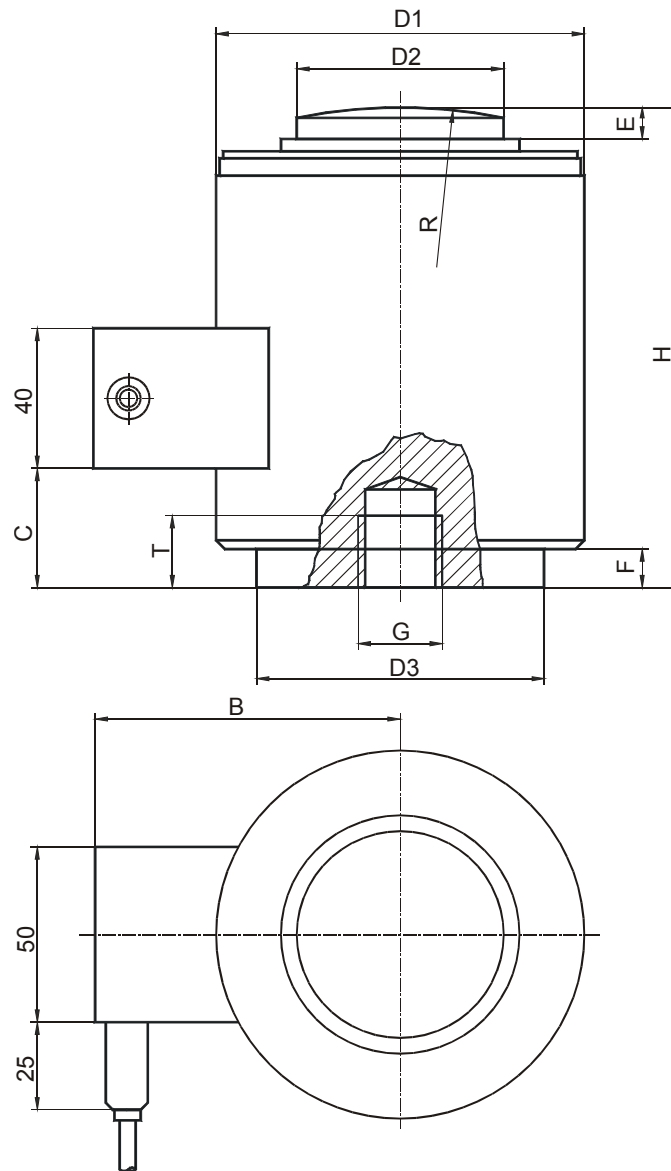
Despite its high load capacity of up to 100t it is only 185mm high.

Due to its geometry with a spherical cap and an even bottom surface the compression load cell can also be used for calibration of high load presses and for construction of automotive and rail-car scales.

A central thread and a centering collar on the bottom side of the sensor allows correct mounting of the sensor.



## Dimensions



Nominal load	10t, 25t	40t, 60t	100t
D1	73	105	152.4
D2	31.8	58.7	79.2
D3	58	82.5	123.8
H	82.5	127	184.2
R	152	152	432
C	12	34	72.3
E	6.5	8	23.6
F	1.8	11	21.8
G	M12 x 1.75	M20 x 2.5	M20 x 2.5
T	11	20	20

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### Technical Data

Load cell	compression
Construction	multiple pillars
Material	stainless steel 1.4542
Accuracy classes	CC (0.05%), C3 (0.02%)
Nominal loads (F <sub>N</sub> )	10t...100t

Accuracy class accord. to OIML R60	CC	C3	
Maximum scale division value		3000	
Minimum scale division value	F <sub>N</sub> /7000	F <sub>N</sub> /12500	
Combined error	< ±0.05	< ±0.02	% S <sub>N</sub>
Zero point return error (30 min)	< ±0.05	< ±0.0067	% S <sub>N</sub>
Creep error (30 min)	< ±0.06	< ±0.0245	% S <sub>N</sub>
Temperature coeff. of the zero signal	< ±0.025	< ±0.0056	% F <sub>N</sub> /5°C
Temperature coeff. of the rated output	< ±0.025	< ±0.0050	% S <sub>N</sub> /5°C

Operating load	150	% F <sub>N</sub>
Breaking load	400	% F <sub>N</sub>
Maximum lateral load	100	% F <sub>N</sub>

Nominal temperature range	-10...+40	°C
Operating temperature range	-40...+80	°C
Storage temperature range	-40...+90	°C

Rated Output (S <sub>N</sub> )	2.00 ±0.02	mV/V
Zero Balance	±2	% F <sub>N</sub>
Max. supply voltage	18	V
Input resistance	450 ±5	Ohm
Output resistance	480 ±5	Ohm
Insulation resistance	> 5 · 10 <sup>9</sup>	Ohm
Connection, 4-conductor open	20m (10m at 10t)	m

### Pin Configuration

+Us	positive bridge supply	green		
-Us	negative bridge supply	black		shield: transparent/orange
+UD	positive bridge output	white		
-UD	negative bridge output	red		