

## KA105 10t, 25t, 40t, 60t, 100t



### Description

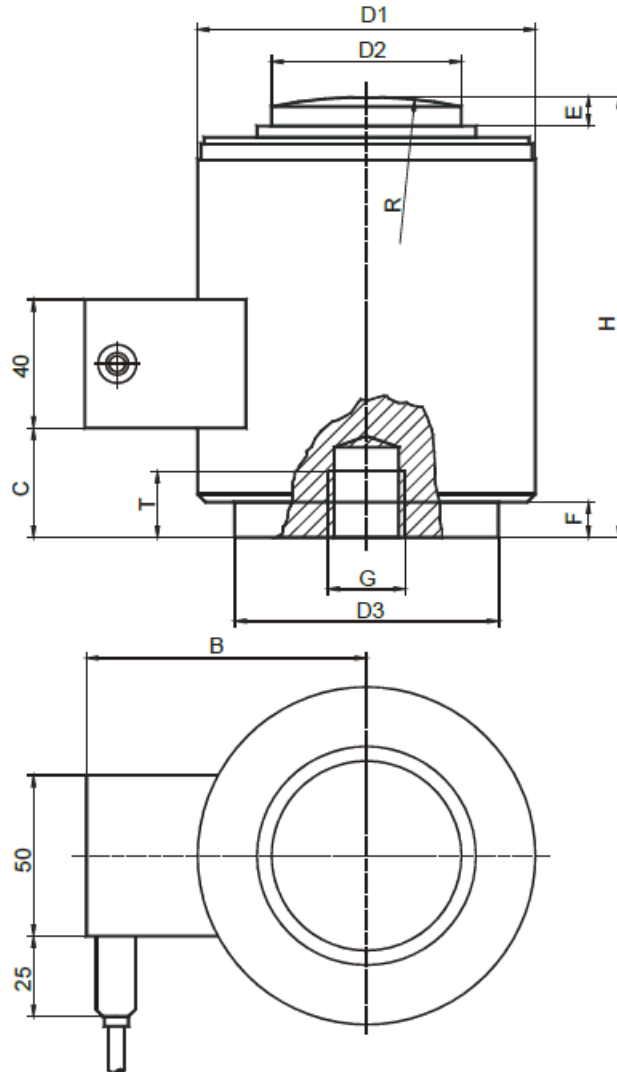
The pressure force load cell KA105 with a welded case is hermetically proof and a 4 column construction. So it is almost unsusceptible against exzentric force.

Even though the cell is able to carry 100t its hight is just 185mm.

On the basis of the geometry of a spherical cap and an even pressing surface, the load cell can also be used to calibrate high pressure compactors or to construct vehicles and track scales as well.

A central winding and a spigot on the underside make it possible to install the sensor easiely.

Dimensions



| Nennlast | 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 | M20x2,5  | M20x2,5 |
| T        | 11         | 20       | 20      |

## Technical Data

### Force sensor

|                     |                 |
|---------------------|-----------------|
| Type                | load cell       |
| Force direction     | Compression     |
| Operating force     | 150 %Fs         |
| Rated displacement  | 0.36 mm         |
| Lateral force limit | 10 %Fs          |
| Material            | Stainless steel |
| Breaking force      | 400 %Fs         |

### Electrical Data

|   |             |
|---|-------------|
| Input resistance                        | 450 Ohm     |
| Tolerance input resistance              | 5 Ohm       |
| Output resistance                       | 480 Ohm     |
| Tolerance output resistance             | 5 Ohm       |
| Insulation resistance                   | 5 GOhm      |
| Rated range of excitation voltage f     | 2.5 ... 5 V |
| Operating range of excitation voltage f | 1 ... 10 V  |
| Zero signal                             | 2 %Fn       |
| Rated output                            | 2 mV/V      |
| relative error of characteristic value  | 0.02 mV/V   |

### Precision

|  |                  |
|--|------------------|
| Accuracy class                             | 0,02%            |
| Relative zero signal hysteresis            | 0.0167 %Fs       |
| Temperature effect on zero signal          | 0.0056 %Fs / 5°C |
| Temperature effect on characteristic value | 0.005 %Rd / 5°C  |
| Relative creep                             | 0.0245 %Fs       |
| Relative repeatability error               | 0.01 %Fs         |

### Temperature

|                               |               |
|-------------------------------|---------------|
| Rated temperature range f     | -10 ... 40 °C |
| Operating temperature range f | -40 ... 80 °C |
| Storage temperature range f   | -40 ... 90 °C |





## Pin Configuration

| Symbol | Description            | Wire colour |
|--------|------------------------|-------------|
| +Us    | positive bridge supply | green       |
| -Us    | negative bridge supply | black       |
| +Ud    | positive bridge output | white       |
| -Ud    | negative bridge output | red         |

Screen - transparent/orange

## accessories

| Description   | Description  |
|---|--|
|  | Calibration Certificate kn/200/5<br>Factory calibration certificate for force to 200 kN in accordance with DIN EN ISO / IEC 17025 for test materials monitoring according to DIN ISO 9001: 2008 with 5 load levels and 3 series of measurements. |
|  | Calibration Certificate kn/1000/5<br>Factory calibration certificate for force to 1 MN in accordance with DIN EN ISO / IEC 17025 for test materials monitoring according to DIN ISO 9001: 2008 with 5 load levels and 3 series of measurements.  |