

## Single point load cell

### For Heavy Duty platforms 0...100 kg up to 0...2,000 kg

### Model F4817

#### Applications

- Platform scales
- Filling scales
- Belt scales
- Packaging scales
- Dynamic testing system

#### Special features

- Measurement ranges 0...100 kg up to 0...2,000 kg
- Made of aluminum alloy
- High accuracy
- High side load tolerance
- Simple structure
- Easy to install



#### Description

Single point load cells are especially designed to be used in platform weighing. They can be mounted under the platform without any further construction or calibration processes.

The load cell is easy to operate due to its simple way of the force direction. It applied vertically to the load cell axis.

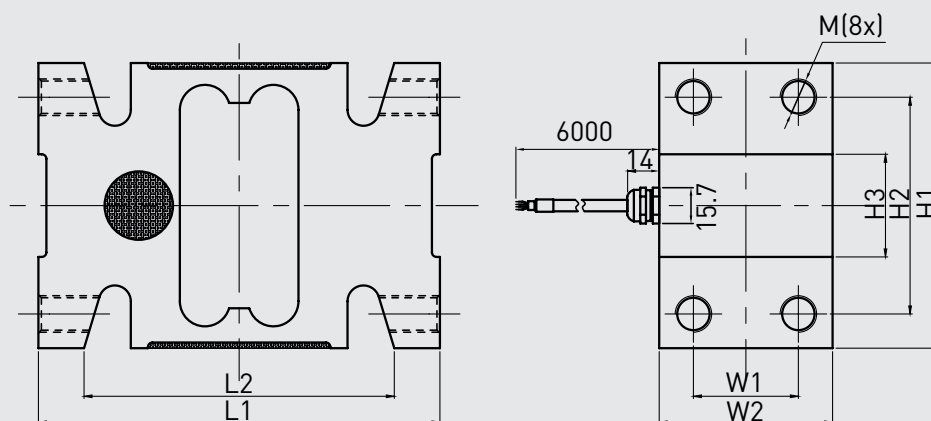
#### Note

The load cells are to be mounted on an even surface. The permitted load direction is marked with an arrow symbol.

## Specifications in accordance with VDI/VDE/DKD 2638

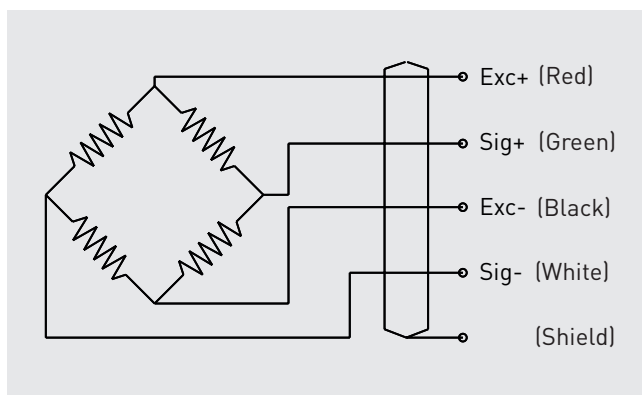
| Model series  | Symbol              | Unit               | F4812  |     |       |       |       |     |
|---|---------------------|--------------------|--|-----|-------|-------|-------|-----|
| Measurement range   |                     |                    |  |     |       |       |       |     |
| Nominal load  | F <sub>nom</sub>    | kg                 | 100  | 150 | 200   | 300   | 500   | 600 |
|   |                     |                    | 750  | 800 | 1,000 | 1,500 | 2,000 |     |
| Accuracy and stability                                      |                     |                    |  |     |       |       |       |     |
| Relative linearity error                                    | d <sub>lin</sub>    | x%F <sub>nom</sub> | ±0.02  |     |       |       |       |     |
| Relative reversibility                                      | v                   | x%F <sub>nom</sub> | ±0.02  |     |       |       |       |     |
| Relative repeatability error in unchanged mounting position | b <sub>rg</sub>     | x%F <sub>nom</sub> | ±0.02  |     |       |       |       |     |
| Relative deviation of zero signal                           | d <sub>S, 0</sub>   | x%F <sub>nom</sub> | ±2   |     |       |       |       |     |
| Relative repeatability error in unchanged mounting position | b <sub>rg</sub>     | x%F <sub>nom</sub> | 0.02   |     |       |       |       |     |
| Relative creep, 30 at min.                                  |                     | x%F <sub>nom</sub> | ±0.02  |     |       |       |       |     |
| Temperature effect on zero signal                           | TK <sub>0</sub>     | %/10 °C            | ≤ ±0.025   |     |       |       |       |     |
| Temperature effect on characteristic value                  | TK <sub>C</sub>     | %/10 °C            | ≤ ±0.025   |     |       |       |       |     |
| Mechanical characteristics                                  |                     |                    |  |     |       |       |       |     |
| Force limit   | F <sub>L</sub>      | x%F <sub>nom</sub> | 150  |     |       |       |       |     |
| Breaking force  | F <sub>B</sub>      | x%F <sub>nom</sub> | 200  |     |       |       |       |     |
| Material  |                     |                    | Aluminum   |     |       |       |       |     |
| Temperature ranges  |                     |                    |  |     |       |       |       |     |
| Rated temperature range                                     | B <sub>T, nom</sub> | °C                 | -10...40   |     |       |       |       |     |
| Operating temperature range                                 | B <sub>T, G</sub>   | °C                 | -20...60   |     |       |       |       |     |
| Electrical characteristics                                  |                     |                    |  |     |       |       |       |     |
| Output signal (rated output)                                | C <sub>nom</sub>    | mV/V               | 2.0 ± 10 %   |     |       |       |       |     |
| Input resistance  | R <sub>e</sub>      | Ω                  | 410 ± 10   |     |       |       |       |     |
| Output resistance   | R <sub>a</sub>      | Ω                  | 350 ± 5  |     |       |       |       |     |
| Insulation resistance                                       | R <sub>is</sub>     | MΩ                 | ≥ 2,000/DC 100 V   |     |       |       |       |     |
| Recommended excitation voltage                              |                     | V                  | 10   |     |       |       |       |     |
| Maximum excitation voltage                                  |                     | V                  | 15   |     |       |       |       |     |
| Electrical connection                                       |                     |                    | Cable Ø 5 x 6,000 mm                                       |     |       |       |       |     |
| General data  |                     |                    |  |     |       |       |       |     |
| Protection (acc. to EN/IEC 60529)                           |                     |                    | IP65   |     |       |       |       |     |
| Platform size   |                     | mm                 | 800 x 1,000 (up to 600 kg)<br>1,200 x 1,200 (up to 750 kg) |     |       |       |       |     |
| Weight  |                     | kg                 | 1.4 (up to 600 kg)<br>4.7 (from 750 kg)                    |     |       |       |       |     |

## Dimensions in mm



| Nominal load<br>in kg         | Dimensions in mm |     |     |    |    |    |    |     |
|-------------------------------|------------------|-----|-----|----|----|----|----|-----|
|                               | L1               | L2  | H1  | H2 | H3 | W2 | W1 | M   |
| 100, 150, 200, 300, 500, 600  | 140              | -   | 75  | 50 | 30 | 46 | 25 | M10 |
| 750, 800, 1,000, 1,500, 2,000 | 176              | 134 | 125 | 95 | 45 | 76 | 46 | M16 |

## Pin assignment



### Electrical connection

|                        |        |
|------------------------|--------|
| Excitation voltage (+) | Red    |
| Excitation voltage (-) | Black  |
| Signal (+)             | Green  |
| Signal (-)             | White  |
| Screen                 | Screen |

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