

### Load cell CL 14M

- tension/compression load cell
- optional adapters
- two year warranty and after market service

The weight load cell CL 14M has been designed for weighing systems with single or several transducers. Together with the ZEPWN electronic instrumentation allows to take measurements with the 0,5% non-linearity. The sensor CL 14M can be load two-directional.



The conversion of measured load is realized due to a steel spring element with strain gage full bridge. The bridge is balanced and thermal compensated. Conversion elements are closed in a hermetic housing which is secured against corrosion with powder lacquer.

For electrical protection IP40 the sensor is equipped with connectors. For electrical protection IP68 the sensor is equipped with a stuffing on the connection cable.

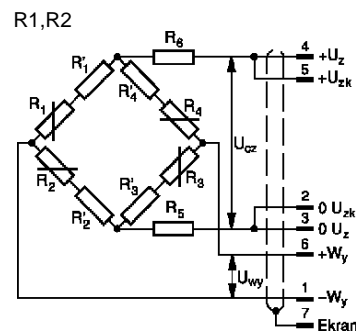
Specifications:

#### Specifications:

|  |              |   |
|--|--------------|---|
| Range  | [kg]         | 5; 10; 20; 50; 100; 200; 500; 1000; 2000; 5000; 10000 |
| Total error                                      | [%]          | $\leq \pm 0,018$                                      |
| Non-linearity                                    | [%]          | 0,5   |
| Return to zero                                   | [%]          | $\pm 0,2$   |
| Return to zero after unloading from nominal load | [%]          | $\leq 0,03$   |
| Strain gauge resistance                          | [ $\Omega$ ] | 350   |
| Input resistance                                 | [ $\Omega$ ] | $410 \pm 10$ (up to 1t) / $380 \pm 5$ (2t ÷ 10t)      |
| Output resistance                                | [ $\Omega$ ] | $\geq 350$  |
| Zero point deviation                             | [%/30 min]   | $\leq 0,03$   |
| Temperature effect on the sensitivity            | [%/10K]      | $\leq 0,05$   |
| Temperature effect on zero t                     | [%/10K]      | $\leq 0,05$   |
| Nominal voltage supply                           | [V]          | 10  |
| Output signal                                    | [mV/V]       | 1- R1; 2- R2  |
| Insulation resistance                            | [GW]         | 1   |
| Overload capacity                                | [%]          | 150   |
| Operating temperature                            | [°C]         | $-20 \div 80$   |
| Compensated temperature range                    | [°C]         | $20 \div 70$  |
| Maximal strain                                   | [mm]         | 0,1   |
| Connectors                                       |              | LUMBERG (Z1); O-Ring gland (O1)                       |
| Protection degree                                |              | IP40, IP68  |
| Dimensions                                       |              | as in table   |
| Material of spring element                       |              | aluminium (up to 1t) and stainless steel (2t÷ 10t)    |
| Cable length                                     |              | 3 m (standard) or optional                            |

#### Designations and cable outlets

|          |            |
|----------|------------|
| 1 brown  | $-W_y$     |
| 2 pink   | $0 U_{zk}$ |
| 3 white  | $0 U_z$    |
| 4 yellow | $+U_z$     |
| 5 grey   | $+U_{zk}$  |
| 6 green  | $+W_y$     |
| 7 black  | shield     |

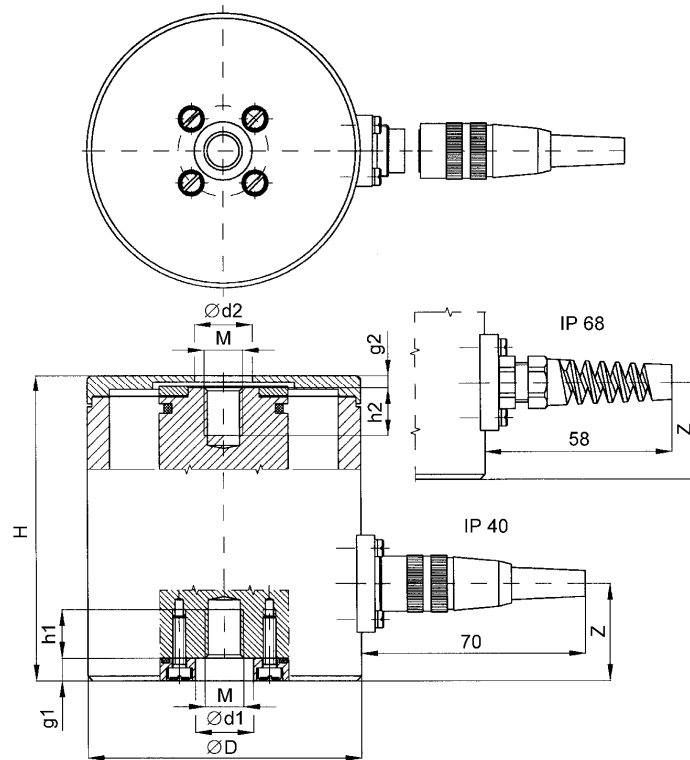


# Weight load cell CL 14M

## Quality assurance

Each sensor is detailed examined after manufacturing process.

The manufacturer offers 24 month warranty for the sensor and after that time also repair and calibration services.



| Range<br>kg | H   | D   | Z  | M     | d1<br>mm | g1 | h1 | d2 | g2 | h2 |
|-------------|-----|-----|----|-------|----------|----|----|----|----|----|
| 5           | 75  | 65  | 22 | M8    | 10       | 7  | 10 | 18 | 2  | 10 |
| 10          | 75  | 65  | 22 | M8    | 10       | 7  | 10 | 18 | 2  | 10 |
| 20          | 75  | 65  | 22 | M8    | 10       | 7  | 10 | 18 | 2  | 10 |
| 50          | 75  | 65  | 22 | M8    | 10       | 7  | 10 | 18 | 2  | 10 |
| 100         | 75  | 65  | 22 | M8    | 10       | 7  | 10 | 18 | 2  | 10 |
| 200         | 75  | 65  | 22 | M8    | 10       | 7  | 10 | 18 | 2  | 10 |
| 500         | 93  | 85  | 30 | M12   | 14       | 7  | 19 | 28 | 6  | 20 |
| 1000        | 93  | 85  | 30 | M12   | 14       | 7  | 19 | 28 | 6  | 20 |
| 2000        | 97  | 88  | 30 | M24x2 | 28       | 8  | 19 | 45 | 4  | 19 |
| 5000        | 97  | 88  | 30 | M24x2 | 28       | 8  | 19 | 45 | 4  | 19 |
| 10000       | 158 | 126 | 50 | M39x3 | 42       | 8  | 30 | 64 | 5  | 34 |

## Example of options for ordering

CL 14M - 1000 kg - 0,5 - R2 - 10 - Z1 - 1: sensor with dimensions as in table, range 1000 kg; non-linearity 0,5%; strain gage bridge 350, W, 2 mV/V; supply 10 V; connector Lumberg; cable length 1 m

Manufacturer \_\_\_\_\_

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