



#### Main features

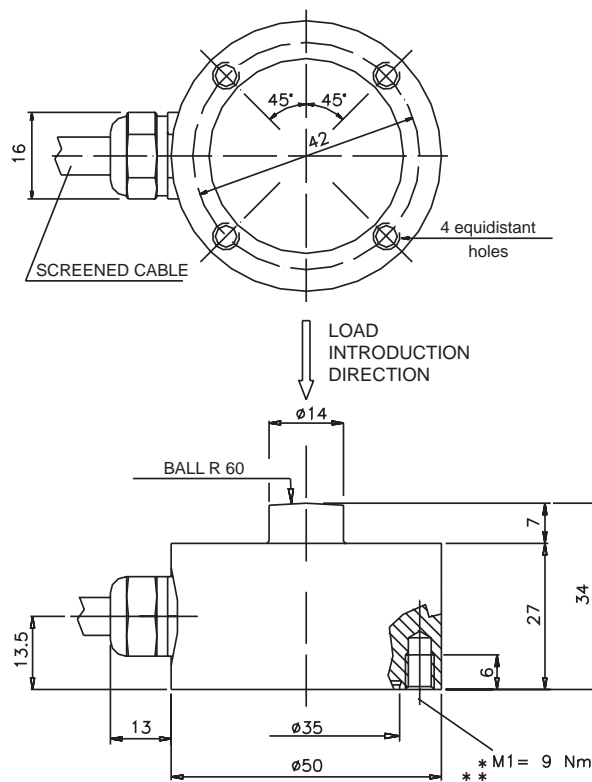
- Range of measurement: from 50 to 1.000 kg
- Accuracy class: 0,2%
- All stainless steel construction
- Corrosion resistant
- Grade of protection: IP67 (DIN 40050)
- Compact size

The CU range of load cells are designed for the measurement of static or dynamic loads in compression. All the transducers are calibrated as load cells in units of mass (Kg). The CU series is supplied for nominal loads from 50Kg to 1t. This model has an IP67 protection degree so it can be used in aggressive atmospheres often found in the chemical industries. The transducer body is machined from a single piece of stainless steel with no welding. This means that it is highly resistant to mechanical shock and vibration. The compact size means that these cells can be placed in positions that are difficult to access and where little space is available.

#### TECHNICAL DATA

|   |  |
|---|--|
| Accuracy  | 0,2%   |
| Nominal full scale load (Ln)                                | 50...1.000 kg  |
| Nominal output at FSO                                       | 2mV/V  |
| Output tolerance at Ln                                      | $< \pm 0,2\%$ FSO  |
| Combined errors: Non linearity<br>Hysteresis, Repeatability | $< \pm 0,2\%$ FSO  |
| Creep (after 30 min. at Ln)                                 | $< \pm 0,06\%$ FSO   |
| Zero load out of balance signal                             | $< \pm 1\%$ FSO  |
| Thermal drift in compensated range                          | Sensitivity<br>Zero Calibration<br>$< \pm 0,01\%$ FSO°C<br>$< \pm 0,01\%$ FSO°C<br>- |
| Nominal input resistance                                    | 350 Ohm  |
| Nominal output resistance                                   | 350 Ohm  |
| Isolation resistance  | $> 10$ GOhm  |
| Nominal supply voltage                                      | 10 V   |
| Maximum supply voltage                                      | 15 V   |
| Compensated temperature range                               | -10...+50°C  |
| Maximum temperature range                                   | -20...+60°C  |
| Storage temperature range                                   | -30...+80°C  |
| Permitted static load                                       | 130% Ln  |
| Permitted dynamic load                                      | 100% Ln  |
| Maximum applicable load                                     | 150% Ln  |
| Rupture load  | $> 300\%$ Ln   |
| Maximum elastic deformation at Ln                           | $< 0,2$ mm   |
| Grade of protection (DIN40050)                              | IP67   |
| Electr. connections screened cable                          | 4x0,25 / 5 m.  |
| Elastic element material                                    | Stainless steel  |

#### MECHANICAL DIMENSIONS

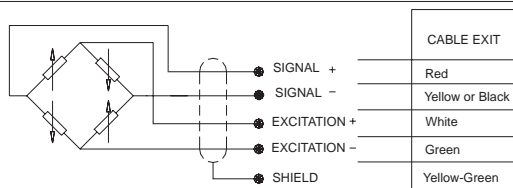


Dimensions mm. ( $\pm 0,1$ )

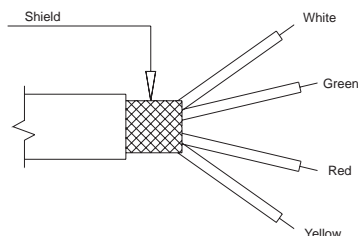
\* Recommended torque

\*\* UNI 5931 screws of resistance class 10.9 according to UNI 3740

## ELECTRICAL CONNECTIONS

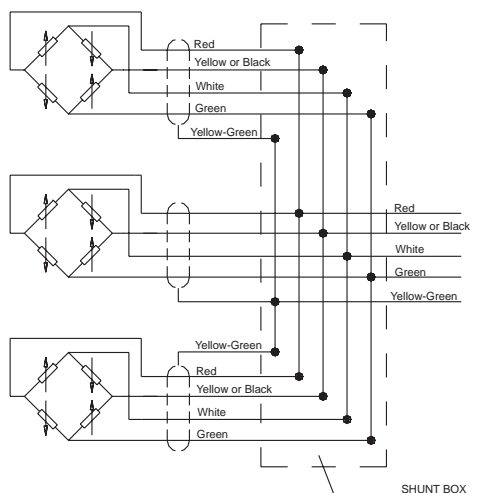


**4x0.25  
Screened cable**



\* The screen is isolated from the transducer body. It is recommended that the ground is connected at the instrument end.

### Cells connected in parallel



In systems that use several cells, the parallel connection automatically sums the loads on each individual cell. Using this method of measurement, the maximum load will be the sum of the loads on the individual cells and the sensitivity will be the average value of these cells. It is important that the user ensures that no cell is stressed beyond its maximum rating under any load condition.

## CONVERSION TABLE

| Kg    | N     | Lb    |
|-------|-------|-------|
| 1     | 9.807 | 2.205 |
| 0.102 | 1     | 0.225 |
| 0.454 | 4.448 | 1     |

## ORDER CODE

Load cell

CU

### MEASUREMENT RANGE (kg)

|          |     |
|----------|-----|
| 0 - 50   | K5D |
| 0 - 100  | K1C |
| 0 - 200  | K2C |
| 0 - 500  | K5C |
| 0 - 1000 | K1M |

If request, it is possible to supply models with non-standard mechanical and/or electrical features.

**Ex.: CU - K5D**

CU load cell, measurement range 0 - 5 0kg.

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice.

**GEFRAN spa**  
via Sebina, 74  
25050 PROVAGLIO D'ISEO (BS) - ITALIA  
ph. 0309888.1 - fax. 0309839063  
Internet: <http://www.gefran.com>  
[www.gefranonline.com](http://www.gefranonline.com)

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cod. CU - 09/04