GEFRAN

CU
COMPACT LOAD CELL
FOR COMPRESSION APPLICATIONS
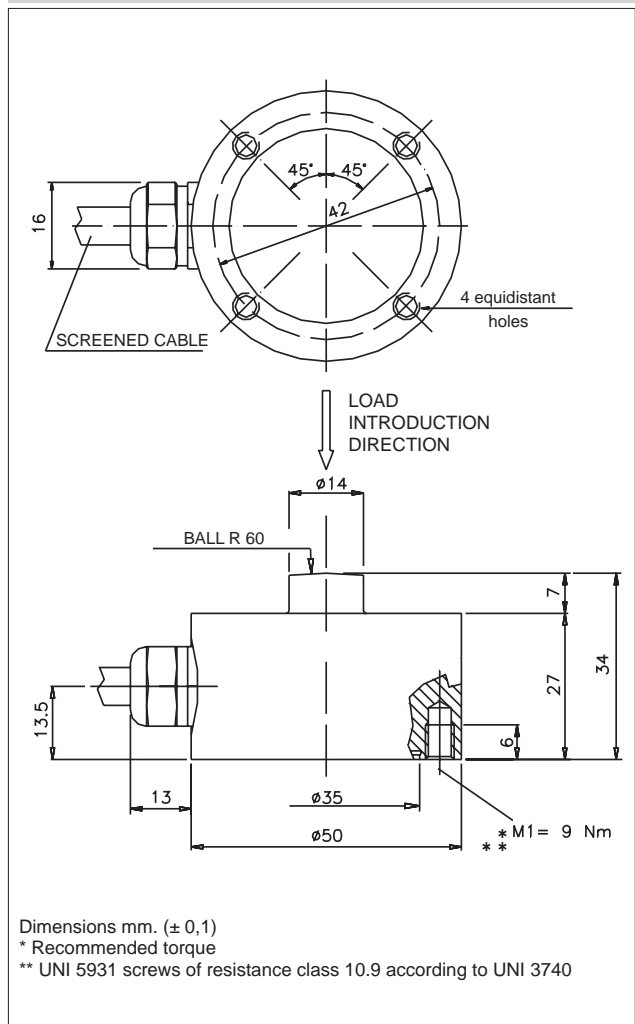

Main features

- *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 acess and where little space is available.
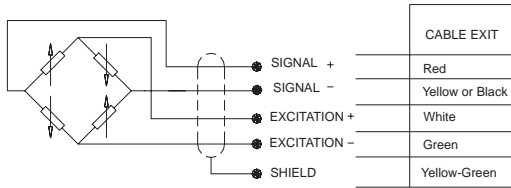
TECHNICAL DATA

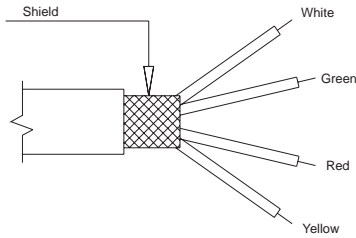|	
Accuracy	0,2%
Nominal full scale load (Ln)	50...1.000 kg
Nominal output at FSO	2mV/V
Output tolerance at Ln	<± 0,2% FSO
Combined errors: Non linearity Histeresis, Repeatibility	< ± 0,2% FSO
Creep (after 30 min. at Ln)	< ± 0,06% FSO
Zero load out of balance signal	< ± 1% FSO
Thermal drift in compensated range — Sensitivity / Zero / Calibration	< ± 0,01% FSO°C / < ± 0,01% FSO°C / -
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 dinamic 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. (± 0,1)
* Recommended torque
** UNI 5931 screws of resistance class 10.9 according to UNI 3740

ELECTRICAL CONNECTIONS

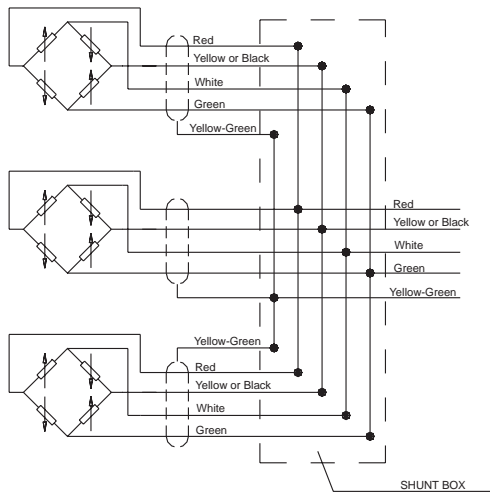|	CABLE EXIT
SIGNAL +	Red
SIGNAL −	Yellow or Black
EXCITATION +	White
EXCITATION −	Green
SHIELD	Yellow-Green

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
stessed 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 sup-
ply 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.