



#### Main features

- Range of measurement: from 50 to 1000 kg
- Accuracy class: 0,2%
- All stainless steel construction
- Corrosion resistant
- Grade of protection: IP67 ( norme DIN 40050)
- Compact size

The TU range of load cells are designed for the measurement of static or dynamic loads in compression (output signal: negative) or traction (output signal: positive). All the transducers are calibrated as load cells in units of mass (Kg). The TU series is supplied for nominal loads from 50Kg to 1t.

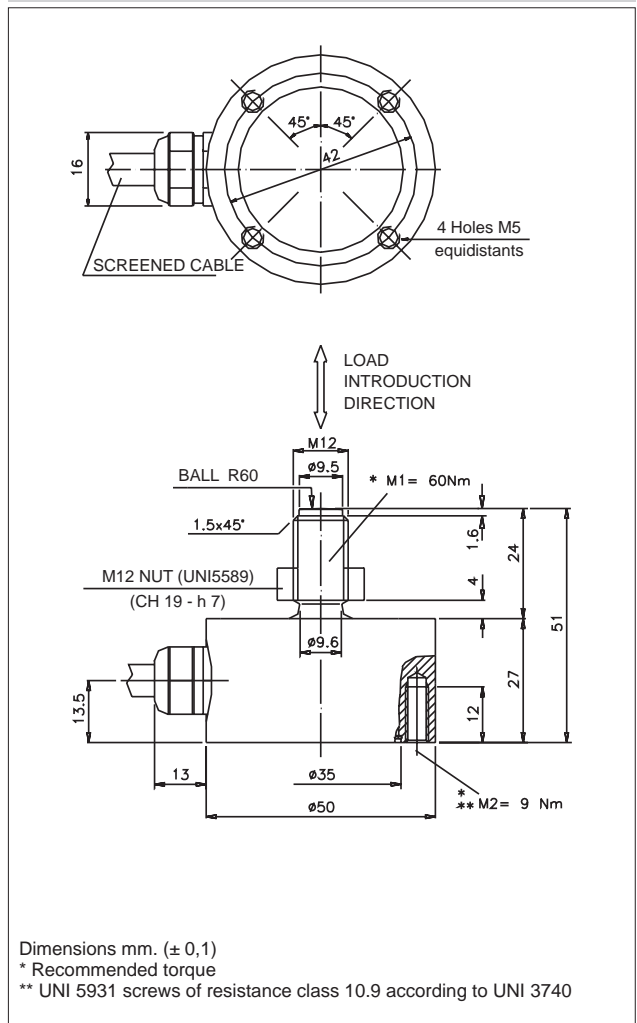
This model has an IP67 protection degree so it can be used in aggressive atmospheres often found in the chemical industries. The transducer body is machined from a single piece of stainless steel with no welding. This means that it is highly resistant to mechanical shock and vibration.

The compact size means that these cells can be placed in positions that are difficult to access and where little space is available.

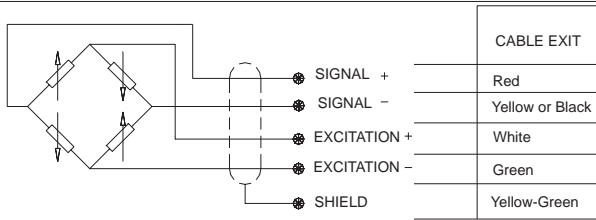
#### TECHNICAL DATA

Accuracy	0,2%
Nominal full scale load (Ln)	50...1000 kg
Nominal output at FSO	2mV/V
Output tolerance at Ln	< ± 0,2% FSO
Combined errors: Non linearity Hysteresis, Repeatability	< ± 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 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

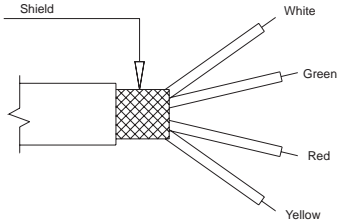
#### MECHANICAL DIMENSIONS



## ELECTRICAL CONNECTIONS

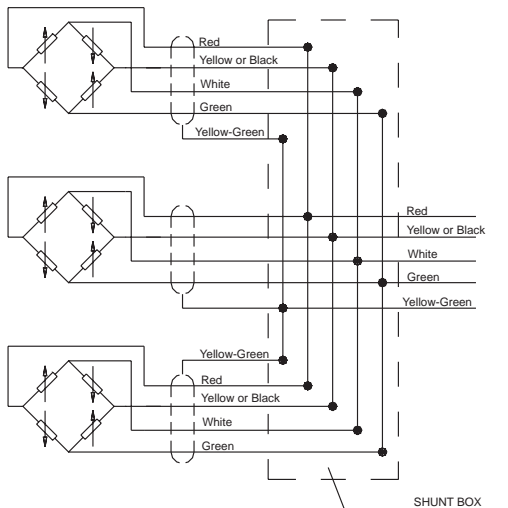


### 4x0.25 Screened cable



\* 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

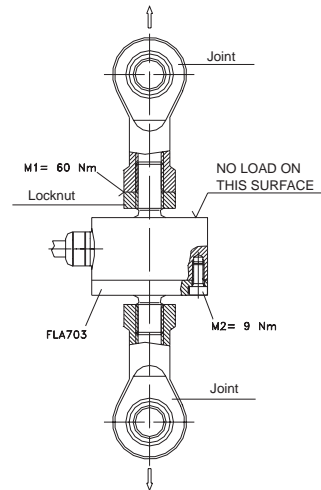
Kg	N	Lb
1	9.807	2.205
0.102	1	0.225
0.454	4.448	1

## OPTIONAL ACCESSORIES

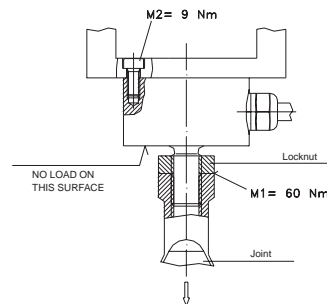
Flange for applying suspended loads	<b>FLA 703</b>
Ball joint	<b>SND022</b>

## APPLICATION NOTES

Mounting with double joint and flange for suspended loads



Wall mounting with ball joint.



## ORDER CODE

Load cell	TU
MEASUREMENT RANGE (kg)	
0 - 50	<b>K5D</b>
0 - 100	<b>K1C</b>
0 - 200	<b>K2C</b>
0 - 500	<b>K5C</b>
0 - 1000	<b>K1M</b>

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

**Ex.: TU - K5D**

TU load cell, measurement range 0 - 50 kg.

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>

**GEFRAN**

DTS\_TU\_0709\_ENG