

# Model 740 Compression Load Cell

# NOVA WEIGH

**Capacities:** 500 t

- **Compression load cell with self centring action**
- **Suitable for large silo and tank weighing (when used with mounting kit)**
- **Stainless steel construction**
- **Hermetically sealed, welded construction IP68 (EN 60529)**
- **1,000 divisions OIML R60 Class C**
- **Integral protection by gas discharge components reduces failures due to lightning strikes**
- **Optional ATEX certified model**
- **Current balanced - simplifies corner adjustment and load cell replacement**



Load cell with optional silo weighing mount

## Robust hermetically sealed construction

The Model 740 is a tough, high capacity, load cell designed for silo and tank weighing requirements. It is also suitable for very large weighbridge designs.

Mounting assemblies are available including a silo weighing kit incorporating lift-off protection (required when large overturning moments may be caused by wind-loads). See separate data sheet for details.

The stainless steel housing is welded and sealed to IP68 according to EN 60529 making it suitable for applications where the cells are exposed to demanding environments. The self-centring action assists the repositioning of the weighed structure after deflections caused by temporary side-loads.

## OIML C1 1,000 division accuracy class

Only load cells that comply with OIML standards can be used in 'Legal-for-Trade' ('Stamped') weighing systems. Even when systems are not being used for financial transactions, OIML certified cells provide independently verified accuracy and confidence that the best weighing performance is being achieved.

All Model 740 load cells are current matched during manufacture. This enhances the performance of multi-load cell installations and reduces the need for corner adjustment in weighbridges etc.

## Built-in voltage surge protection

Load cells can be damaged by the effects of large voltage surges caused, for example, by the effects of lightning storms. Load cells that are mounted outdoors on large steelwork structures are most susceptible to this effect.

The Model 740 has internal gas discharge components fitted to protect each circuit. These will conduct under the influence of a high-voltage surge and protect the sensitive measuring gauges etc from damage. Experience has shown that this feature greatly reduces the incidence of damage caused by electrical storms.

## ATEX certification for use in hazardous areas

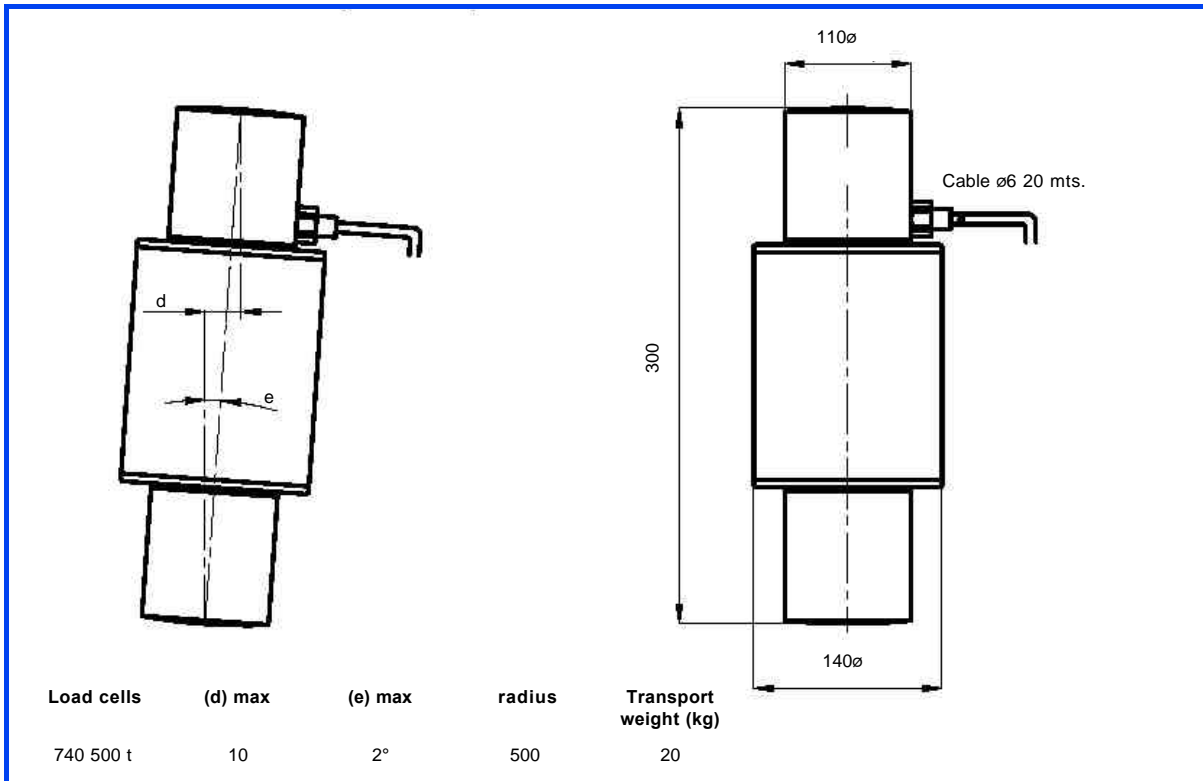
Users within the chemical and pharmaceutical industries frequently require cells that are ATEX certified for use in hazardous areas. The Model 740 is ATEX certified not only for gas and vapour but also for dust applications.

## Technical Specification

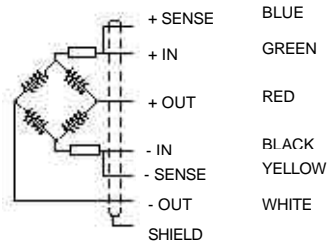
Nominal capacities (L <sub>n</sub> )	500 t
Accuracy class	1,000 divisions OIML R60
Minimum dead load (E <sub>min</sub> )	0 %L <sub>n</sub>
Service load	120 %L <sub>n</sub>
Safe load limit (E <sub>min</sub> )	150 %L <sub>n</sub>
Ultimate load	> 350%C <sub>n</sub>
Total error	0.05 %C <sub>n</sub>
Repeatability error	0.015 %C <sub>n</sub>
Temperature effect on zero	0.01 %C <sub>n</sub> /5°K
Temperature effect on sensitivity	0.018 %C <sub>n</sub> /5°K

Creep error (30 minutes)	0.048 %C <sub>n</sub>
Temperature compensation	-10 .. +40 °C
Temperature limits	-30 .. +70 °C
Nominal sensitivity (C <sub>n</sub> )	2 ± 0.5% mV/V
Nominal input voltage	10 V
Maximum input voltage	15 V
Input impedance	800 ± 30 Ω
Output impedance	700 ± 3 Ω
No load output	± 2 %C <sub>n</sub>
Insulation resistance	> 5,000 MΩ
Maximum deflection (at L <sub>n</sub> )	1.4 - 2.6 mm
ATEX certification	II I GD EEx ia IIC T4 - T6 IP65 Ta: 85 deg C

## Dimensions



## Electrical Connections



SENSES: 2 additional wires to maintain a constant voltage supply at the load cell when used with proper instrumentation. Use specially when long wires and wide temperature range.  
SHIELD: Not connected to transducer body.



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BS EN ISO 9001:2000 Cert No: FM 11445

Nova Weigh's policy of constant product development dictates that we may alter specifications and or the appearance of our product range without notice.