TSL

Compression load cell

10/2006 06-05-04-1 FT

Applications

- Weighing of hoppers, tanks and small and medium capacity silos, for Non-Trade use only.

General

The TSL load cell consists of a stainless steel body (according to IP 68). It is available in 4 capacities : 5, 10, 15, 30 t.

Its small size and ease of installation make it ideal for all industrial weighing applications.

It is available with a mounting kit for weighing silos, hoppers or tanks. This kit is made of stainless steel and it includes an anti-uplift device, a strip preventing lateral forces, and screw stands to simplify installation.

Description

The TSL load cell is a low profile compression load cell made of welded hermetically sealed stainless steel.

Precision up to ± 0.05%; spherical load button for optimum alignment of the load.

Allowable forces on the kit :

The maximum static horizontal force along the center line of the locking strip (**1**) is 8 kN.

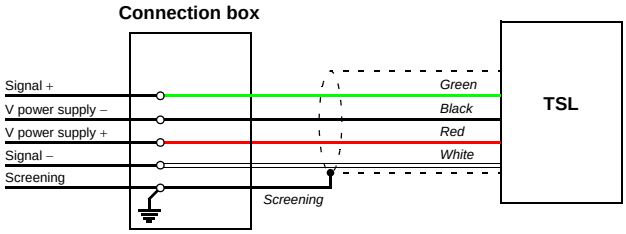
The maximum vertical tear off force is 20 kN for the 15 t kit and 35 kN for the 30 t kit.

Option

Ex version for use in explosive and according to new directive 94/09/CE. Marking : EEx II 2 D T80°C IP68.

EEx ia IIC T6 II 1GD.

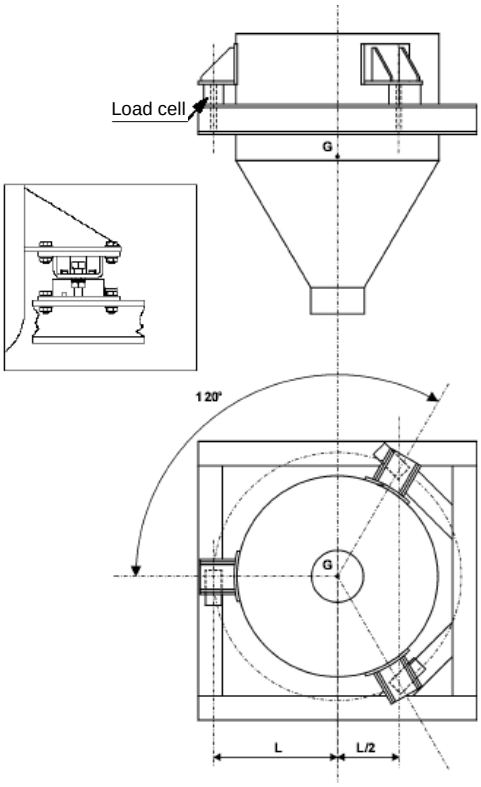
Cabling



Applications

Mechanical mounting

Example : Mounting on silo

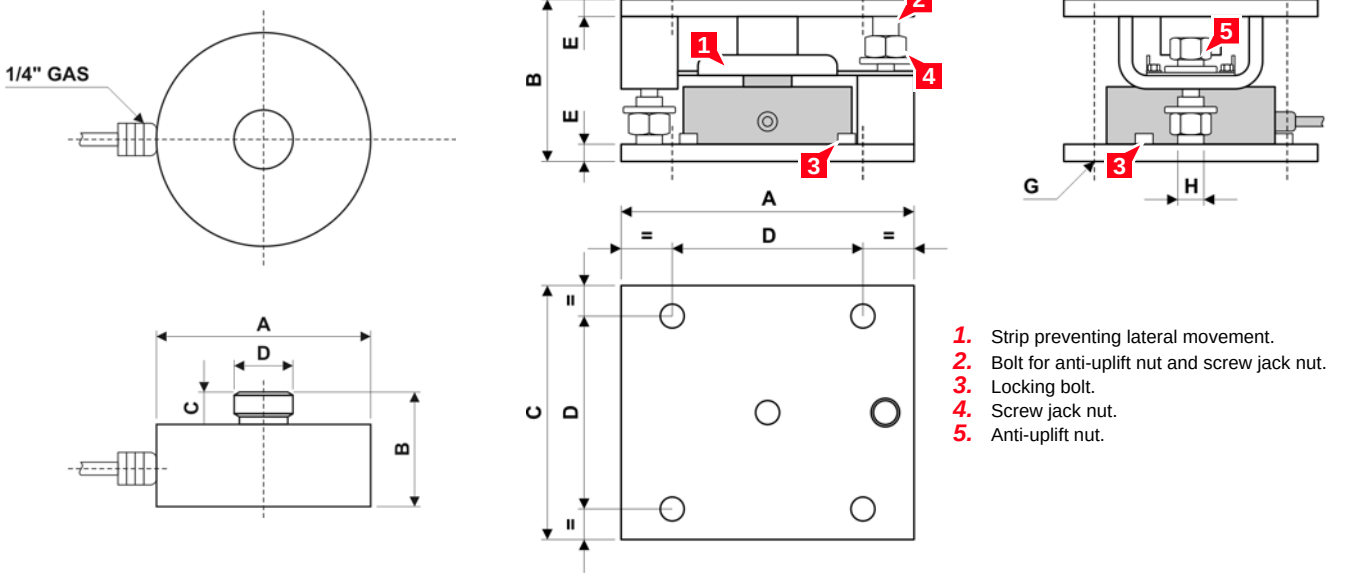


Electrical connection

The load cell delivers a low level analog electrical signal. It is therefore necessary to take special precautions for the electrical cabling.

- Always connect the screen of the load cell in the junction box or in the indicator.
- Keep the load cell cable away from elements that could cause severe electromagnetic disturbances. Avoid routing the power cable alongside the measuring cable.
- Keep the measuring element away from all heat sources or protect it.

Dimensions (mm)



1. Strip preventing lateral movement.
2. Bolt for anti-uplift nut and screw jack nut.
3. Locking bolt.
4. Screw jack nut.
5. Anti-uplift nut.

Capacity	ØA	ØD	B	C	Weight
5, 10, 15 t	82	22	44	12	1.5 kg
30 t	126	35	54	14	4 kg

Tolerance ± 0.2 mm

Capacity	A	B	C	D	E	F	G	H	Weight
5, 10, 15 t	175	96	150	115	10	Ø14	Ø14	M16	6 kg
30 t	230	118	200	160	10	Ø17	Ø17	M20	10 kg

Tolerance ± 0.5 mm

Mechanical characteristics

- Capacity (CN) : 5, 10, 15, 30 t.
- Maximum capacity : 150 % of the capacity
- Breaking load : 300 % of the capacity
- Combined error ..... 0.05% CN
- Non-repeatability ..... 0.02% CN
- Initial zero capacity..... ± 1% CN
- Creep ..... 0.03% CN
- Nominal deflection..... < 0.5 mm
- Insulation resistance..... > 2 000 MΩ

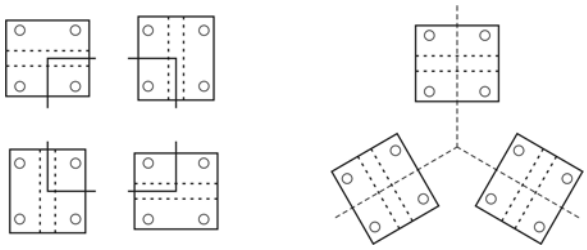
Electrical characteristics

- Max. power supply voltage range (DC)
  - maximum ..... 1.. à 15 V
- Input impedance..... 700 Ω ± 20 Ω
- Output impedance..... 700 Ω ± 5 Ω
- Sensitivity ..... 2 mV/V ± 0.1%
- Temperature effect on sensitivity ..... < 0.005 % / °C
- Temperature effect on zero..... < 0.005 % / °C
- Screened cable, black PVC jacket
  - Number of wires..... 4
  - Length :
    5 t and 10 t ..... 5 m
    15 t and 30 t ..... 10 m

Environment

- Temperature range
  - operational ..... - 20 °C / + 70 °C
  - compensated ..... - 10 °C / + 50 °C
- Protection : IP 68

Example layouts :



Options & accessories

Mounting kit

Your weighing specialist

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