

LOW HEIGHT WEIGHING ASSEMBLY FOR SILO, TANK AND VESSEL WEIGHING

capacities 1t - 30t

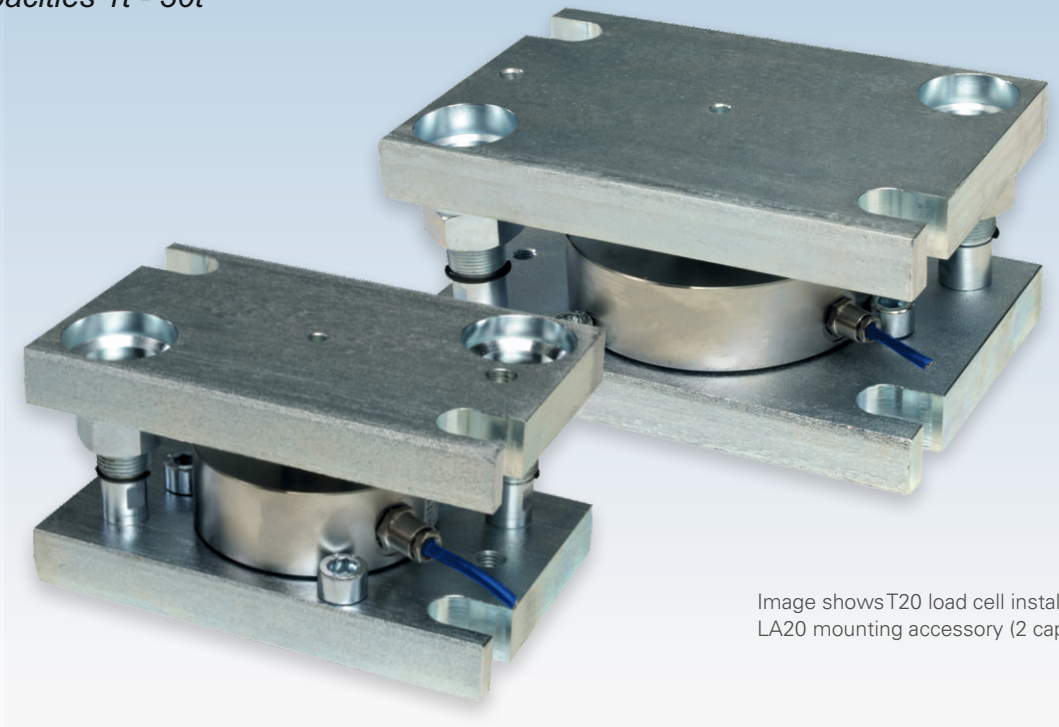


Image shows T20 load cell installed within LA20 mounting accessory (2 capacity ranges)

The T20 with LA20 weighing assembly is specifically designed as a reliable, simple, low cost solution for weighing of tanks, silos and vessels. It offers an excellent compromise between accuracy and cost.

The stainless steel T20 load cell is mounted in a compact LA20 mounting accessory (either zinc plated alloy steel or stainless steel) that has integrated jacking nuts to allow simple, fast load cell installation and removal. The LA20 mounting accessory offers integrated lift-off protection and allowance for the angular misalignment that is often found in silos, tanks and other large metal structures. The mounting accessory incorporates a hardened alloy steel or stainless steel load bearing disc, for optimum force application of force to the T20 load cell.

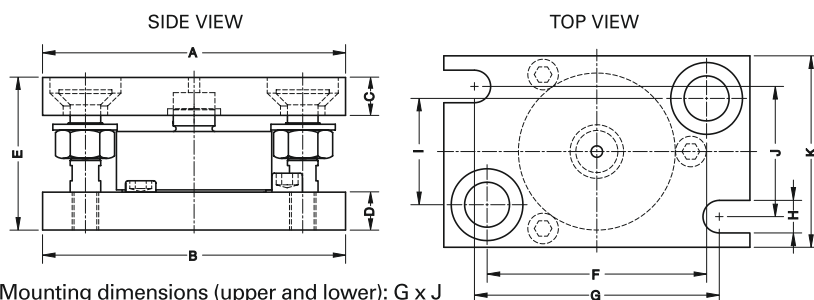
The T20 load cell is suitable for use in a fully live system with working load cells under all legs/support points of the vessel, or – where cost is more important than accuracy – use in a live/dummy system with either 1 live and 2 dummy (total 3) load cells or 2 live and 2 dummy (total 4) load cells.

- Stainless steel compression load cell
- Fully welded and hermetically sealed construction, protected to IP68 and IP69K
- Allows for thermal expansion and contraction of vessel
- Integrated threaded nuts to lift the top plate without hydraulic jacks or lifting tools
- Combined Error < $\pm 0.025\%$
- Low profile, compact mounting accessory
- Integrated lift-off protection
- Allowance for angular mis-alignment
- 5 Year Warranty
- Durable polyurethane cable with high resistance to chemicals, impacts and UV radiation
- Option of High Temperature, or Parylene coated, or ATEX and IECEx certified versions



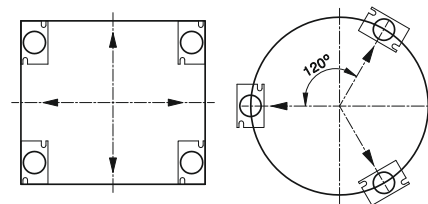
T20 with LA20

technical specification...



Mounting dimensions (upper and lower): G x J

Mounting Proposal Examples



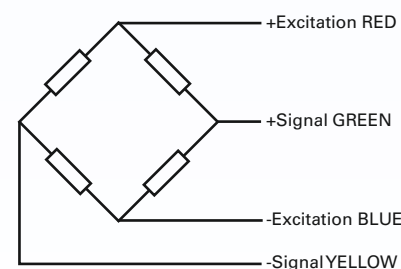
T20 Load Cell

| | Load cell specification | Units |
|---|-------------------------|-----------------|
| Load Cell Capacities (E_{max}) | 1, 2.5, 5, 10, 20, 30 | tonnes (t) |
| Rated Output (S_n) | 2.0 | mV/V \pm 0.1% |
| Combined Error | $< \pm 0.025$ | % S_n |
| Non-Repeatability | $< \pm 0.015$ | % S_n |
| Minimum load cell verification interval (V_{min}) = E_{max}/Y | $E_{max} / 10000$ | kg |
| Creep (30 minutes) | $< \pm 0.024$ | % S_n |
| Temperature Effect on Zero Balance | $< \pm 0.002$ | % S_n / °C |
| Temperature Effect on Span | $< \pm 0.0018$ | % S_n / °C |
| Compensated Temperature Range | -10 to +40 | °C |
| Operating Temperature Range | -50 to +70 | °C |
| Safe Load Limit (E_{lim}) | 200 | % S_n |
| Zero Balance | ± 2.0 | % S_n |
| Input Resistance | 800 ± 30 | Ω |
| Output Resistance | 700 ± 5 | Ω |
| Insulation Resistance | > 5000 | M Ω |
| Ingress Protection Rating | IP68 and IP69K | |
| Cable Length | 10 | m |
| Maximum Deflection at E_{max} | < 0.6 | mm |
| Nominal Shipping Weight | 1t-10t | 7.0 kg |
| (Load Cell with Accessory) | 20t-30t | 15.8 kg |

Dimensions

| Capacity (t) | 1, 2.5, 5, 10 | 20, 30 |
|--------------|---------------|--------|
| A, B | 160 | 218 |
| C, D | 20 | 25 |
| E | 80 | 100 |
| F | 115 | 168 |
| G | 128 | 180 |
| H | 17 | 21 |
| I | 55.5 | 100 |
| J | 68 | 100 |
| K | 100 | 150 |

All dimensions are in mm



Weighing Assembly Data

| Mounting Accessory | Load Cell Capacity (t) | Maximum Upwards (Lift-off) Load (kg) | Maximum Side or End Load (kg) | Maximum Side Offset (mm) |
|------------------------------|------------------------|--------------------------------------|-------------------------------|--------------------------|
| LA20-10T-ZINC LA20-10T-SS | 1, 2.5, 5, 10 | 7339 | 2243 | ± 3 |
| LA20-30T-ZINC LA20-30T-SS | 20, 30 | 12644 | 3262 | ± 3 |

The above data is applicable with or without the load cell installed.

Model T20 ATEX / IECEx Certification

| Code | Specific parameters of protection types | Application |
|--|---|--|
| II 1 G D Ex ia IIC T4...T6 Ga Ex ia IIIC T85°C Da Ex ta IIIC T85°C Da | Protection type "Ex i" Ex ia IIC T4 / Ex ia IIIC | Gas Zones 0, 1, 2 with safety barriers |
| | Pi = 1.3W | |
| | Protection type "Ex i" Ex ia IIC T5 | |
| | Pi = 0.6W | |
| | Protection type "Ex i" Ex ia IIC T6 | Dust Zones 20, 21, 22 without safety barriers. Maximum supply voltage 25V. |
| | Pi = 0.2W | |
| | Protection type "Ex ta" | |
| | Umax = 25V | |

DISTRIBUTED BY:

Electrical Connections

Via 4 core, 5.7mm diameter, screened Polyurethane cable
Screen not connected electrically to load cell.

Construction

Load cell T20
Stainless steel

Mounting accessory LA20

- Zinc plated version LA20-***-ZINC
Upper plate, lower plate, hardware: zinc plated alloy steel
- Stainless steel version LA20-***-SS
Upper plate, lower plate, hardware: stainless steel

Thames Side Sensors Ltd

Unit 10, io Trade Centre, Deacon Way,
Reading, Berkshire RG30 6AZ, UK
tel: +44 (0) 118 941 1387
sales@thames-side.co.uk
www.thames-side.com



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Our policy is one of continuous product enhancement. We therefore reserve the right to incorporate technical modifications without prior notification.



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