

# LOW PROFILE WEIGHING ASSEMBLY FOR SILO, TANK AND VESSEL WEIGHING



The LA20 Weighing Assembly is specifically designed as a reliable, simple, low cost solution for weighing of tanks, silos and vessels where 'level measurement' is the main requirement. It offers an excellent compromise between accuracy and cost.

The stainless steel T20 load cell is mounted in either a zinc plated or stainless steel, compact LA20 mounting accessory that has integral jacking bolts to allow for load cell installation and removal, lift-off prevention and allowance for the angular misalignment that is often present in silos or other metal structures. The LA20 accessory incorporates a hardened alloy steel or stainless steel load bearing surface, for optimum force application to the T20 load cell.

The design is suitable for use either as a totally live system with load cells under all legs/support points of the vessel or – where cost is critical – as a dummy system with either one live and two dummy cells (total 3 cells) or two live and two dummy cells (total 4 cells).

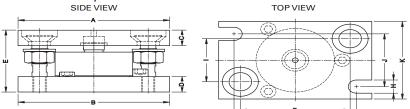
- Stainless steel compression load cell
- Fully welded and hermetically sealed construction to IP68/IP69K
- Allows for thermal expansion and contraction of vessel
- Integral jacking facility to lift accessory
- 1000 division accuracy
- (Ex) option

- Low profile, extremely compact mounting accessory
- Integral lift-off prevention
- Allowance for angular mis-alignment
- 5 year warranty
- Durable polyurethane cable with high resistance to chemicals, impacts and UV radiation
- Optional Parylene coating for aggressive environments



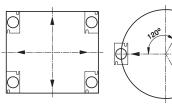
# technical specification...

Mounting dimensions (upper and lower): G x J





## **Mounting Proposals**



#### **T20 Load Cell**

		Load cell specification	Units
Load Cell Capacity (E <sub>max</sub> )		1, 2.5, 5, 10, 20, 30	tonnes (t)
Rated Output (S <sub>n</sub> )		2.0	mV/V ± 0.1%
Combined Error		< ± 0.05	% S <sub>n</sub>
Non-repeatability		< ± 0.015	% S <sub>n</sub>
Minimum load cell verification interval $(v_{min}) = E_{max} / Y$		E <sub>max</sub> / 10000	kg
Creep (30 minutes)		< ± 0.048	% S <sub>n</sub>
Temperature Effect on Zero Balance		< ± 0.002	% S <sub>n</sub> / °C
Temperature Effect on Span		< ± 0.0036	% S <sub>n</sub> / °C
Compensated Temperature Range		0 to +50	°C
Operating Temperature Range		-50 to +70	°C
Safe Load Limit (E <sub>lim</sub> )	Safe Load Limit (E <sub>lim</sub> )		% S <sub>n</sub>
Zero Balance		± 2.0	% S <sub>n</sub>
Input Resistance		800 ± 30	Ω
Output Resistance	Output Resistance		Ω
Insulation Resistance		> 5000	MΩ
Recommended Supply Voltage		5-15	V
Maximum Supply Voltage		15	V
Environmental Protection according to EN 60529		IP68 / IP69K	
Cable Length		10	m
Maximum deflection at E <sub>max</sub>		< 0.6	mm
Nominal Shipping	1t -10t	7.0	kg
Weight (Load Cell with Accessory)	20t -30t	15.8	kg

### **LA20 Weighing Assembly Data**

Mounting Accessory	Load Cell Capacity (t)	Maximum 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.

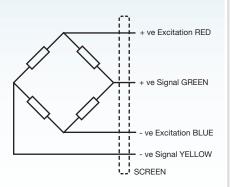
#### **T20 Load Cell ATEX Certification**

Code	Temperature Class	Parameters	Application
II 1 GD	T4	Pi = 1.3W	Gas Zones 0, 1, 2
Ex ia IICT4T6 Ga IP68T85°C Ex ia IIICT85°C Da	T5	Pi = 0.5W	with safety barriers  Dust Zones 20, 21, 22
Ex ta IIICT85°C Da	T6	Pi = 0.2W	without safety barriers

#### **LA20 Dimensions**

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

All dimensions in mm



#### **Electrical Connections**

Via 4 core, 5.7mm diameter, screened polyurethane cable.

Screen not connected electrically to load cell.

#### Construction

Load cellT20 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



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