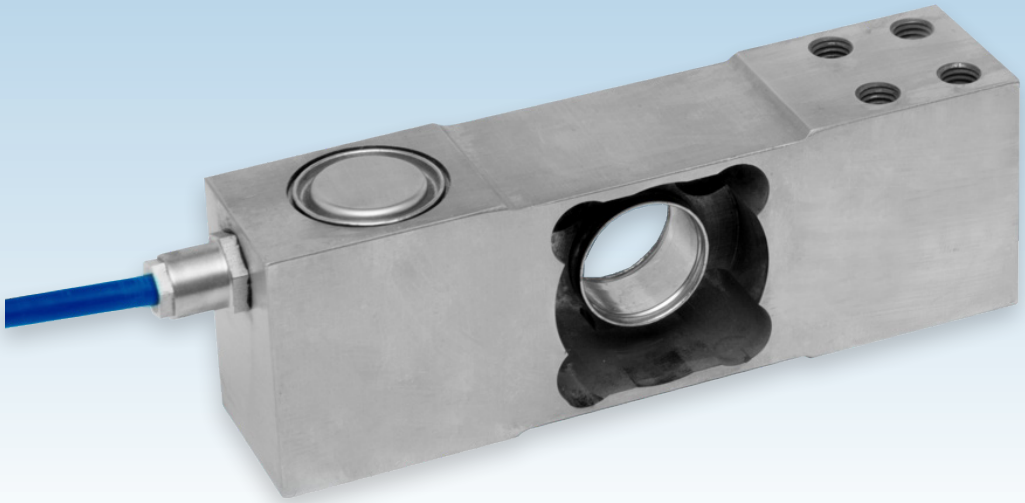
T12

Thames Side

STAINLESS STEEL SINGLE POINT LOAD CELL FOR HARSH ENVIRONMENTS

capacities 15kg - 400kg



The T12 double bending beam, stainless steel single point load cell is ideal for high accuracy weight measurement with off-centre loads in harsh industrial environments. Its hermetically sealed and fully welded construction, with protection class IP68 and IP69K, is essential for use in applications involving regular wash-down at high temperatures and pressures, such as the food and pharmaceutical industries. It is approved to 3000 divisions OIML R60 Class C. The screened polyurethane cable with 6-wires (including sense wires) ensures that this load cell design is particularly insensitive to electrical noise.

Typical applications include weighing platforms with dimensions up to 800mm x 800mm; bagging, filling and dosing machines; medical scales; checkweighers; small bucket and hopper systems.

The T12 is available with optional ATEX certification for all Gas and Dust zones. The ATEX certification for dust zones 20, 21 and 22 does not require safety barriers, which saves substantial cost.

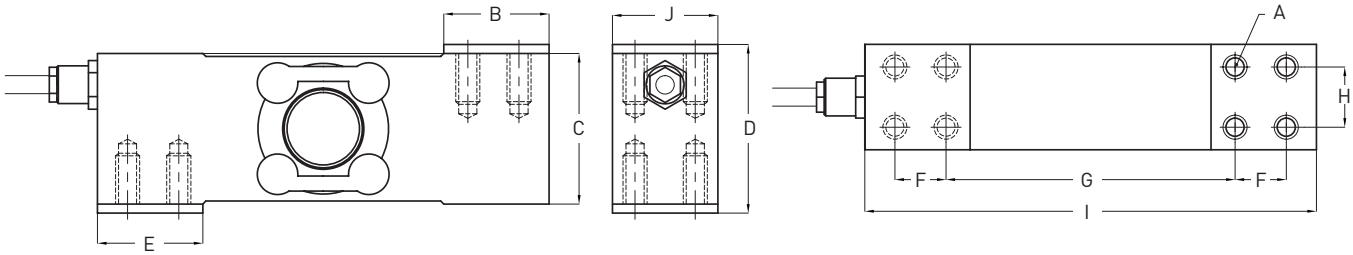
For applications in aggressive environments where stress corrosion or acid attack is a potential problem, a special Parylene coating can be specified as an option.

- Stainless steel load sensor
- Hermetically sealed and fully welded to IP68/IP69K
- OIML R60 Class C 3000 divisions (C3)
- Noise-insensitive 6-wire connection with sense wires
- Ex option
- 5 year warranty
- High accuracy with off-centre loads
- 600x600mm or 800x800mm platform size (with load cell placed centrally under the platform)
- High durability Polyurethane cable provides higher resistance to chemicals than PVC

OIML Ex

T12

technical specification...



Qty. 2 spacer plates supplied with load cell, as shown above

T12 Load Cell

		Load cell specifications	Units
Load Cell Capacities (E_{max})		15, 20, 30, 50, 75, 120, 200, 250, 350, 400	kg
Rated Output (S_n)		2	mV/V ± 10%
Accuracy Class		3000	n.OIML
Combined Error		< ± 0.017	% S_n
Non-repeatability		< ± 0.01	% S_n
Creep (30 minutes)		< ± 0.016	% S_n
Temperature Effect on Zero Balance		< ± 0.002	% S_n / ˚C
Temperature Effect on Span		< ± 0.0012	% S_n / ˚C
Compensated Temperature Range		-10 to +40	˚C
Operating Temperature Range		-20 to +70	˚C
Minimum Dead Load		0	% S_n
Safe Overload		150	% S_n *
Ultimate Overload		200	% S_n *
Zero Balance		< ± 2	% S_n
Maximum Deflection at Nominal Capacity		0.3 to 0.5	mm
Input Resistance		400	Ω ± 20
Output Resistance		350	Ω ± 3
Insulation Resistance		> 5000	MΩ @ 100V
Recommended Supply Voltage		5-15	V
Maximum Supply Voltage		15	V
Environmental Protection to EN 60529		IP68 / IP69K	
Cable Length		5	m
Cable Material		Polyurethane	
Maximum Platform Size+	**15, 20, 30, 50, 75, 120, 200, 350 kg**	600 x 600	mm
	250, 400 kg	800 x 800	
Nominal Shipping Weight	**15, 20, 30, 50, 75, 120, 200, 350 kg**	1.8	kg
	250, 400 kg	4.3	

* Only applies to central loads on the load cell. Not for off-centre loads.
\+ The load cell must be placed centrally under the platform.

Dimensions

Capacity (kg)	15, 20, 30, 50, 75, 120, 200, 350	250, 400
A	8 off M8 x 1.25 x 14	8 off M10 x 1.5 x 20
B	35	50
C	50	60
D	56	66
E	35	50
F	17	30
G	96	100
H	20	40
I	150	180
J	35	60

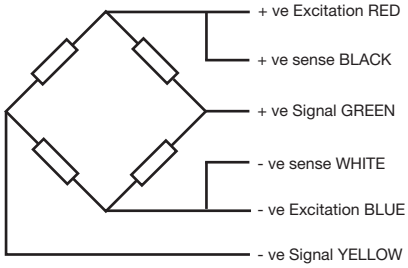
Dimensions in mm

T12 Load Cell ATEX Certification

Code	Temp Class	Parameters
II 1 GD Ex ia IIC T4...T6 Ga IP68 T85°C Ex ia IIIC T135°C T85°C Da Ex ta IIIC T85°C Da	T4	Pi = 2.6W
	T5	Pi = 1.7W
	T6	Pi = 0.56W

Application

- Gas Zones 0, 1, 2 with safety barriers
- Dust Zones 20, 21, 22 **without** safety barriers (using "Ex ta" protection type)



Electrical Connections

Via 6 wire, 5.7mm diameter, screened polyurethane cable.
Screen not connected electrically to load cell.

DISTRIBUTED BY:

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THAMES SIDE SENSORS LTD

Issue: T12.10.17

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