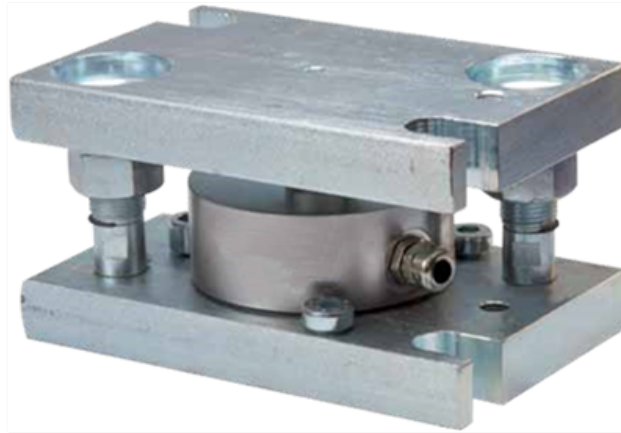




# Procon Engineering

(A Division of National Oilwell Varco UK Limited)



## Type T20 Low Profile Load Cell Assembly

Capacity 1 tonne to 30 tonnes

**Fully welded and hermetically sealed construction to IP68 / IP69K**

**Stainless steel compression load sensor**

**Allows vessel expansion and contraction**

**1000 division accuracy**

**Low profile, extremely compact loading assembly**

**Internal lift off prevention and jacking facility**

**Allowance for angular misalignment**

**Durable and chemical resistance polyurethane cable**

Vessel weighing problems solved simply and cost effectively.

The T20 stainless steel compression load cell is specifically designed as a reliable, simple, low cost solution for weighing of tanks, silos and vessels where level measurement is the main criteria.

The load cell is mounted in either a zinc plated or stainless steel low profile, extremely compact mounting assembly which has integral jacking to allow load cell installation and removal, lift-off prevention and allowance for angular misalignment that is often present in silos or other metal structures. 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 paramount, in a dummy system with either one live and two dummy cells or two live and two dummy cells

All Procon Engineering load cells come with a 3 year warranty.



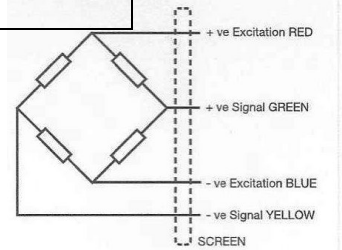
# Type T20 Low Profile Load Cell Assembly

## Technical Specification Sheet

### ATEX Certification

Code	Temperature Class	Parameters	Application
II 1 GD	T4	PI = 1.3W	Gas Zones 0, 1, 2 with safety barriers Dust zones 20, 21, 22 <b>without safety barriers</b>
Ex ia IIC T4... T6 IP68 T85°C	T5	PI = 0.5W	
Ex ia IIIC T85°C Da	T6	PI = 0.2W	

Load Cell Specification	Units	
Load cell capacity ( $E_{max}$ )	1, 2.5, 5, 10, 20, 30	tonnes (t)
Rated output ( $S_n$ )	2.0	mV/V $\pm 0.1\%$
Combined error	$< \pm 0.05$	% $S_n$
Non-repeatability	$< \pm 0.015$	% $S_n$
Minimum load cell verification interval ( $V_{min0} = E_{max}/Y$ )	$E_{max} / 10000$	kg
Creep (30 minutes)	$< \pm 0.048$	% $S_n$
Temperature effect on zero balance	$< \pm 0.002$	% $S_n / ^\circ C$
Temperature effect on span	$< \pm 0.0036$	% $S_n / ^\circ C$
Compensated temperature range	-10 to +40	$^\circ C$
Operating temperature range	-50 to +70	$^\circ C$
Safe load limit	200	% $S_n$
Zero balance	$\pm 2.0$	% $S_n$
Insulation resistance	$> 5000$	M $\Omega$
Environmental protection according to EN 60529	IP68 / IP69K	
Cable length	3	m
Maximum deflection at $E_{max}$	$< 0.6$	mm
Nominal shipping weight (load cell with accessory)	1t to 10t	7.0 kg
	20t to 30t	15.8 kg



### 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

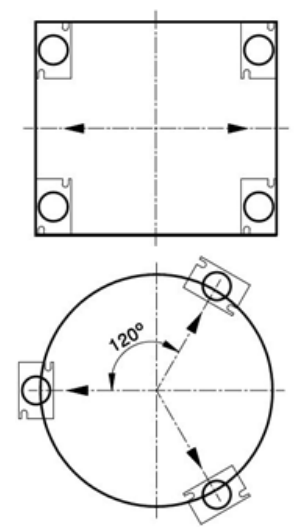
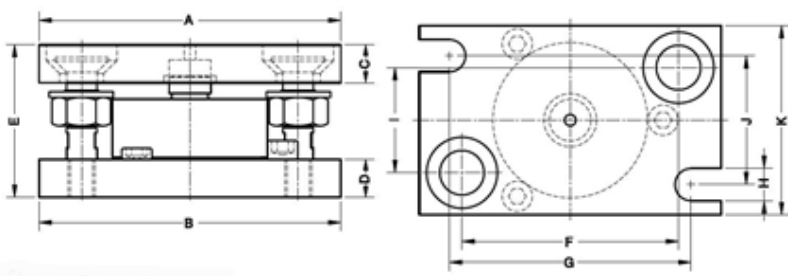
### Weighing Assembly Data

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	$\pm 3$
LA20-30T-Zinc LA20-30T-SS	20, 30	12644	3262	$\pm 3$

### Dimensions

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

All dimensions in mm



Procon Engineering's policy is one of continuous product enhancement.

We therefore reserve the right to incorporate technical modifications without prior notification. E&OE.

Issue No: 2018-01

Block 4, Units 2 & 3  
Vestry Estate  
Sevenoaks, Kent, TN14 5EL

Tel: 01732 781300  
Fax: 01732 781311  
web site: [www.proconeng.com](http://www.proconeng.com)

