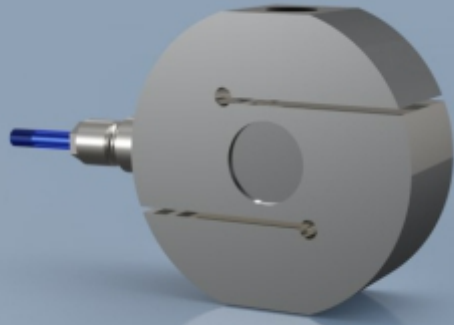




## TYPE: STA-9



# STA-9 Stainless Steel S Type Tension & Compression Load Cell

## Description

The STA-9 load cell series is ideal for measuring both tensile and compressive forces. The standard metric threads at each end of the load cell are designed to accept standard spherical seating rod-end bearings.

Manufactured from fully welded and hermetically sealed stainless steel, the STA-9 is suitable for many applications where high accuracy tension and compression load cell are required. Applications such as vessel weighing, material test machines and dynamometers are a few examples.

The STA-9 series can be supplied on its own or combined with our extensive range of instrumentation to provide a complete load monitoring system.

## Specification

Rated load	250kg, 500kg, 1te, 2te, 5te, 7.5te, 10te		
Proof load	150% of rated load		
Ultimate breaking load	300% of rated load		
Output	2mV/V at rated load ( $\pm 0.1\%$ )		
Combined Error	$< \pm 0.017\%$ of rated load (10te version $< \pm 0.018\%$ )		
Non-repeatability	$< \pm 0.015\%$ of rated load (10te version $< \pm 0.010\%$ )		
Creep (30 minutes)	$< \pm 0.016\%$ of rated load		
Recommended voltage	5 to 15vdc (10te version 1 to 15vdc)		
Maximum supply voltage	15vdc (10te version 18vdc)		
Zero balance	$< \pm 2\%$ of rated load (10te version $< \pm 1\%$ of rated load)		
Bridge resistance	$350\Omega \pm 3$ (10te version $350\Omega \pm 2$ )		
Input resistance	$> 400\Omega \pm 20$ (10te version $> 420\Omega \pm 20$ )		
Insulation resistance	$> 5000M\Omega$ at 100vdc		
Operating temperature range	$-40$ to $+95^\circ\text{C}$ (10te version $-20$ to $+70^\circ\text{C}$ )		
Compensated temperature range	$-10$ to $+55^\circ\text{C}$ (10te version $-10$ to $+40^\circ\text{C}$ )		
Zero temperature coefficient	$< \pm 0.002\%$ of rated load/ $^\circ\text{C}$ (10te version $< \pm 0.01\%$ )		
Span temperature coefficient	$< \pm 0.0012\%$ of rated load/ $^\circ\text{C}$ (10te version $< \pm 0.01\%$ )		
Environmental protection level	IP68 (100 hours up to 1m)		
Connection type	250kg to 7.5te: 5 metres Polyurethane cable 10te: 5 metres PVC cable		
Wiring connections	250kg - 7.5te:	+supply: Red +signal: Green	-supply: Blue -signal: Yellow
	10te:	+supply: Red +signal: White	-supply: Black -signal: Yellow

## Available Options

- Spherical seating rod end bearings
- Compression load button

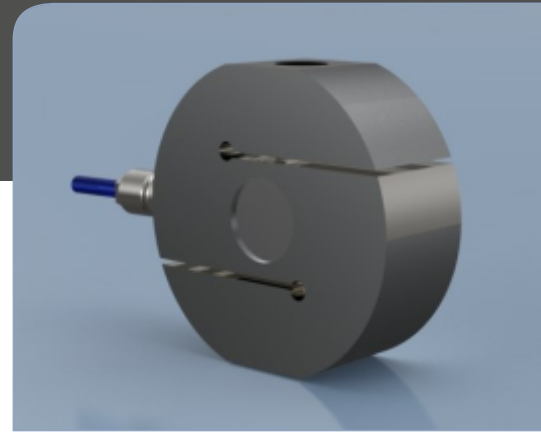
## Features

- Ranges: 250 to 10,000kg
- Stainless steel fully welded construction
- Environmentally sealed to IP68
- Can be supplied complete with mating spherical rod-end bearings
- Excellent long-term stability

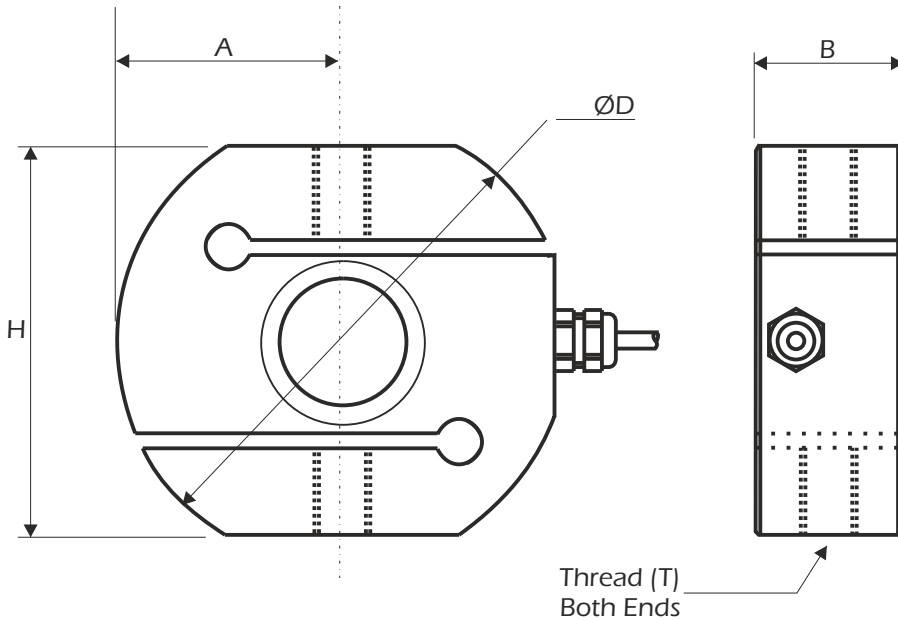
## Typical Applications

- Vessel weighing
- Hanging scales
- Multipoint structural weighing
- Material/tensile test machines
- General force measurement

# STA-9 Stainless Steel S Type Tension & Compression Load Cell



## Dimensions



All dimensions are in mm

Rating (kgs)	Part Number	A	H	B	ØD	Thread (T)	Resolution (kgs)	Weight (kgs)
250	STA-9-250	37.5	70	24.5	75	M12 x 1.75	0.02	1
500	STA-9-500	37.5	70	24.5	75	M12 x 1.75	0.05	1
1000	STA-9-1000	50	95	30	100	M20 x 1.5	0.1	2
2000	STA-9-2000	50	95	30	100	M20 x 1.5	0.2	2
5000	STA-9-5000	62.5	120	40	125	M24 x 2	0.5	4
7500	STA-9-7500	62.5	120	56	125	M24 x 2	1	5.5
10,000	STA-9-10000	63.5	120	50	127	M30 x 2	2	4.4

**Note:** Default calibration of load cells will be in tension. If you require calibration in a different mode to the standard or in both tension & compression, please state at time of order (additional charges will apply).

When paired with instrumentation, accuracy figures may become subject to system inaccuracies. Please refer to calibration certificate for actual performance.

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Due to continual product development, LCM Systems Ltd reserves the right to alter product specifications without prior notice.

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