

## Description

The TCA series load cell 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 bearing.

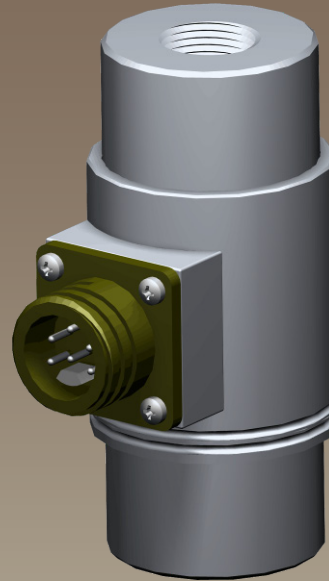
There is great flexibility in the TCA design, allowing us to offer special sizes, to meet specific application requirements, or different end thread sizes/combinations. There are versions available with male threads at each end, or male threads one end, female the other. We are also happy to supply any of the TCA series with imperial thread sizes.

The TCA series can be supplied as shown in this datasheet or can be modified to meet a particular application requirement. We are always pleased to discuss any special requirements that can be accommodated. The TCA series can be supplied on it's own or combined with our extensive range of instrumentation to provide a complete load monitoring system.

## Typical Applications

- Structural Testing
- Jack Load monitoring
- Cable tension Monitoring
- Material Test Machine Feedback
- Press Load Monitoring

## TCA Tension/Compression Load Cell



## Features

- Ranges from 1tonne to 100tonne
- Stainless Steel construction.
- Environmentally Sealed to IP66 (IP67 and submersible versions can also be offered)
- Designed to fit standard metric rod-end bearing sizes.
- Special Sizes and ranges available.
- Can be supplied with imperial threads & male or male/female end threads.
- Can be supplied complete with mating spherical rod-end bearings.

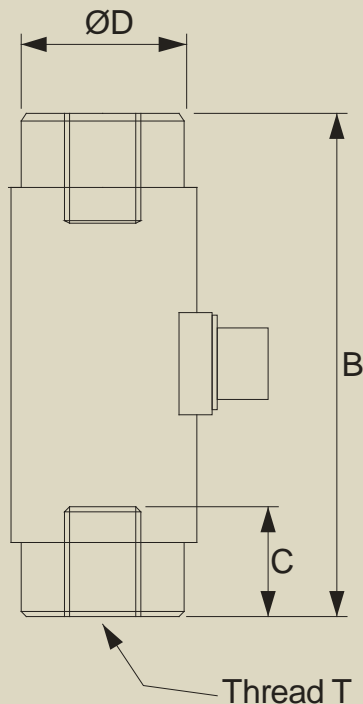
# Tension/Compression Load Cell

## Specification

Rated Load (tonne):	1, 2, 3, 5, 7.5, 10, 20, 30, 50, 75, 100		
Proof Load:	150% of Rated Load		
Ultimate Breaking Load:	>300% of Rated Load		
Output:	1.5 mV/V at Rated Load ( $\pm 10\%$ )		
Accuracy:	< $\pm 0.20\%$ of Rated Load		
Non-Repeatability:	< $\pm 0.10\%$ of Rated Load		
Excitation Voltage:	10vdc recommended, 15vdc maximum		
Bridge Resistance:	350 $\Omega$ , (700 $\Omega$ for ranges above 30tonne)		
Insulation Resistance:	>500M $\Omega$ @ 500vdc		
Operating Temperature Range:	-20 to +70°C		
Compensated Temperature Range:	-10 to +50°C		
Zero Temperature Coefficient:	< $\pm 0.010\%$ of Rated Load/°C		
Span Temperature Coefficient:	< $\pm 0.010\%$ of Rated Load/°C		
Environmental Protection Level:	IP66 (IP67 optional)		
Connection Type:	Integrated bayonet lock connector, supplied with 5 meter mating cable assembly		
Wiring Connections:	Red +ve supply	Blue -ve supply	
	Green +ve signal	Yellow -ve signal	
Options Available	Special ranges and sizes available Different thread arrangements Special electrical connections Submersible versions available Supply with spherical rod-end bearings		

## Mechanical Dimensions

All dimensions in millimeters



	Part Number/Range			
	B	C	ØD	Thread T
TCA-1	76	16	31	M12 x 1.25
TCA-2	76	16	31	M12 x 1.25
TCA-3	84	22	38	M20 x 1.5
TCA-5	84	22	38	M20 x 1.5
TCA-7.5	108	29	44	M24 x 2
TCA-10	108	29	44	M24 x 2
TCA-20	203	50	57	M36 x 3
TCA-30	355	89	114	M64 x 4
TCA-50	355	89	114	M64 x 4
TCA-75	458	100	130	M100 x 3
TCA-100	458	100	130	M100 x 3

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

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Unit 15, Newport Business Park  
 Barry Way, Newport, Isle of Wight, PO30 5GY  
 United Kingdom  
 Tel: +44 (0) 1983 249264  
 Fax: +44 (0) 1983 249266  
 Email: sales@lcmsystems.com

**LCM**  
 SYSTEMS

www.lcmsystems.com

TYPE: TCA