



## TYPE: CPW



# CPW Wireless Stainless Steel Compression Load Cell

## Description

The LCM range of wireless compression load cells are designed for general use and are suitable for use in laboratories or in permanent outdoor installations. They are built to exacting standards and there are many special options, including integral carry handles, load cap and mounting base. The standard product is constructed from stainless steel.

The unique wireless housing is manufactured from semi-aromatic polyamide plastic making the load cell far more compact and reducing the overall product weight. Located in the housing are two AAA alkaline batteries which can be easily accessed by removing the telemetry housing cover, while the internal electronics underneath remain completely sealed. The antenna is also internally mounted, protecting it from accidental damage during use and handling. The batteries are standard AAA alkaline batteries, which are readily available and low cost.

The CPW is supplied as standard without any additional wireless devices to enable greater flexibility with the configuration and ordering of the product. The CPW can be used with any of the T24 range of wireless instrumentation, whether this be for a simple display system using the T24-HS-LS, or more complex systems using multiple load cells and multiple wireless devices.

For more sophisticated systems, including datalogging or monitoring/reporting requirements, we are able to offer a robust tablet PC with installed software for use with single or multiple load cell installations. Our sales team will be happy to discuss the best wireless system configuration to suit your requirements.

The CPW series can be provided 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.

## Specification

Rated load (tonne)	50, 100, 200, 300, 500, 750, 1000
Proof load	150% of rated load
Ultimate braking load	>300% of rated load
Non-linearity	<±0.25% of rated load (typically)
Non-repeatability	<±0.05% of rated load
Transmission distance	Up to 800 metres (clear line of sight)
Battery Life	>300 hours (continuous use, with 1.2Ah batteries)
Battery (standard)	AAA Alkaline x 2 (supplied with 1.2Ah batteries)
(ATEX)	AAA L92 Lithium x 2 (supplied with 1.2Ah batteries)
Operating temperature range	-20 to +55°C (-20 to +50°C for Ex i versions)
Telemetry housing	Polyamide resin
ATEX certification details	II 2G Ex ib IIC T4 Gb
Environmental protection level	IP67

## Available Options

- Special ranges and sizes
- Hazardous Area certified - Intrinsically Safe (Ex i)
- Various wireless accessories available (see T24 range of wireless products)
- Flat top option
- Verification Standard versions
- Mounting base/Load cap
- Optional handles (recommended above 100 tonnes)



## Features

- Ranges: 50 tonne to 1000 tonne
- Stainless steel construction
- Wireless range up to 800m
- Environmentally sealed to IP67
- Many special versions available
- Versions available for use as calibration standards

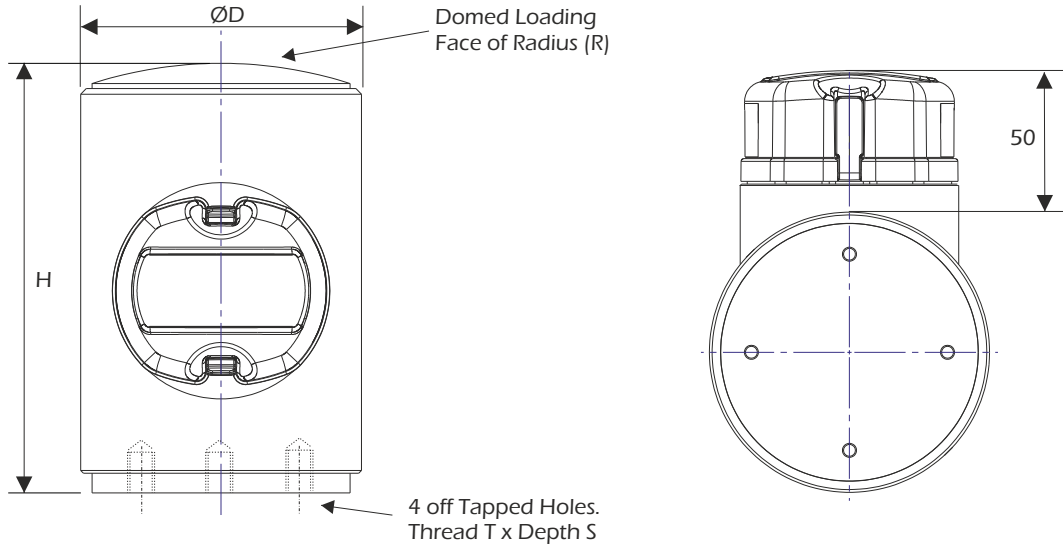
## Typical Applications

- Hydraulic press calibration
- Pile force measurement
- Structural proof testing
- Centre of gravity (module) weighing
- Jack force measurement



# CPW Wireless Stainless Steel Compression Load Cell

## Dimensions

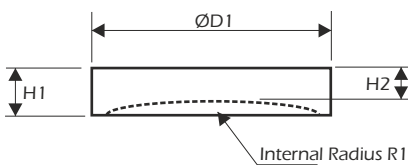


Rating (tonnes)	Part Number	H	ØB	ØD	T	S	R	Weight (kgs)	Resolution (tonnes)
50	CPW-50-D	103	50	88	M4	10	158	6.5	0.05
100	CPW-100-D	153	70	100	M5	12	150	11	0.1
200	CPW-200-D	180	78	125	M6	12	100	19	0.2
300	CPW-300-D	185	n/a	140	n/a	n/a	180	21	0.5
500	CPW-500-D	250	n/a	165	n/a	n/a	250	42	0.5
750	CPW-750-D	350	n/a	198	n/a	n/a	350	85	1
1000	CPW-1000-D	400	n/a	276	n/a	n/a	400	220	1

Note 1: Part numbers for ATEX versions will be suffixed with -ATEX-I e.g. CPW-100-D-ATEX-I.

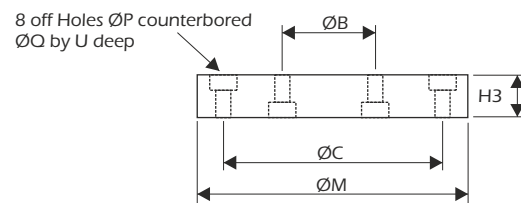
Note 2: Dimensions may change for hazardous area versions.

## Spherical Load Cap (optional)



Rating (tonnes)	H1	H2	ØD1	R
50	20	16	88	159
100	30	24	101	151
200	40	29	125	102
300	45	38	165	182
500	50	40	165	260
750	80	70	198	360
1000	80	70	276	410

## Mounting Base (optional)



Rating (tonnes)	ØB	ØC	H3	ØM	ØP	ØQ	U
50	50	100	10	120	4.5	10	6
100	70	120	10	140	5.5	11	7

A summary of available wireless devices that can be used to enhance the CPW in your application can be viewed on the next page of this datasheet.

For further assistance on system configuration, please call us or email your requirements to [sales@lcmssystems.com](mailto:sales@lcmssystems.com).

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## Wireless Receivers/Display Options



**T24-HS-LS**  
Simple wireless display for connecting to 1 load cell



**T24-HA**  
Wireless display for connection to up to 12 load cells



**T24-HR**  
Wireless display for connecting to multiple load cells



**X24-HD**  
ATEX Wireless display for connection to up to 24 load cells

## Wireless Base Station Options



**T24-BSu**  
Wireless USB connected base station



**T24-Bsd**  
Wireless compact USB connected dongle base station



**T24-BSue**  
Wireless USB extended range base station



**T24-BSi**  
Wireless USB, RS485, RS232 connected base station

## Wireless Output Module Options



**T24-RM1**  
Wireless relay, switch output module



**T24-SO**  
Wireless serial ASCII output module



**T24-AO1**  
Wireless analogue output module



**T24-PR1**  
Wireless surface mounting tally roll printer



**T24-AR**  
Wireless range extender repeater module

## Wireless Software Options



LCM Systems are able to offer various software solutions for our wireless range of load cells. We encourage you to speak to our sales team to discuss any standalone software requirements you may have.

The solutions we regularly offer include centre of gravity weighing and reporting, multiple load cell display & reporting and PC based datalogging. Other solutions can also be offered.

For more detailed information regarding wireless instrumentation visit [www.lcmsystems.com/T24](http://www.lcmsystems.com/T24)

www.lcmsystems.com

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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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