# WLS-LC Series Wireless Load Sensor

The wireless LoadSense Load Transducer is a strain gauge based stainless steel tension type sensor. It has the capability of wirelessly transmitting its data to one of our compatible readouts and displays or recording its data locally.

Its inbuilt 32 MBit memory can hold up to 280 hours of data which can then be downloaded to a PC via its USB cable. The Load Sensor transmits using the worldwide licence free frequency of 2.4 GHz on two built in antennas.

The LoadSense Load Transducer is used with our Handheld Receiver which can read several devices at the same time, (see data sheet WLS3626R for more details), and/or our stand alone Receiver Interface which is used to output the data via RS232/RS422, (see data sheet WLS3627R for more details)



## Technology

The LoadSense Load Transducer works in the worldwide harmonized band of 2.4 GHz so does not require a licence to operate and uses advanced technologies to enable data to be sent and received error free, these include, forward error correcting and data whitening.

## Software

LoadView is an easy to use advanced load monitoring software, available to assist data recording and instrumentation.

Features: 3 types of display. Text files compatible with Matlab and Excel. Real time chart plotting.

LabVIEW VIs are available for users to design their own process control applications.

DLLs are also available for users to write their own custom software.
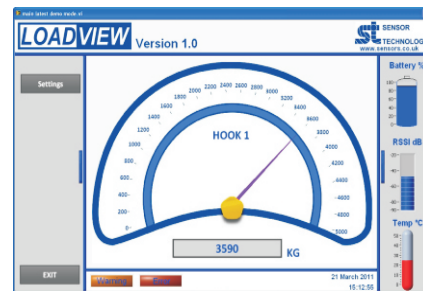


## Benefits

- Wireless, so easy to install and remove between installations

- Transmits data up to a distance of 100m

- Transmits data at up to 10 times a second

- Internal Memory for up to 280 hours of data

- 11-28V external supply chargeable

- Connect to PC via USB

- PC software for customer settings

- Flexible automatic shutdown to conserve battery

- Dual ruggedised internal antennas

- FCC Part 15/RSS

- Import data into Excel

## WLS-LC Series Load Transducers - Data Specification

| Parameter | Variable |
|---|---|
| Nominal Load | 1, 3, 5, 10, 15, 20 and 25 Tonne |
| Accuracy | ± 0.25% |
| Max Overload | 200% |
| Breaking Load | > 300% |
| Temp Coef of Zero | 0.05% Deg C |
| Temp Coef of Span | ± 0.01% Deg C |
| Environmental Protection | IP65 |
| Weight | 5 Kg (up to 10 Tonne range) |
| Materials | Stainless Steel / Aluminium |
| Operating Temp Range | -10ºC to + 50ºC |
| Storage Temp Range | -20ºC to + 60ºC |
| Internal memory | 32 Mbit |
| **RF** | |
| Transmitter Output Power EIRP | +10 dBm |
| Frequency Range | 2425 - 2430 MHz    20 Channels   250kHz steps |
| Modulation | MSK |
| Data Rate | 250Kbps |
| Antenna | Dual patch antennas |
| RFI / EMC | To EN301-489 1, FCC Part 15, RSS |
| **Power Input - Battery** | |
| Type | Li-Ion Battery MGL-9015 |
| Voltage | 3.7V 2600mAH |
| Data transmit rate | Operating time at 20ºC |
| 1 / Sec | 1000 Hours + |
| 10 / Sec | 120 Hours |
| **Power Input - Charge Facilities** | |
| Connector | External Power |
| Voltage | 11 to 28V |
| Charge time (from complete discharge) | TBC |

Lead for charging, data transfer and external power input is provided.

## Mechanical Data



OPTIONAL BOW SHACKLES
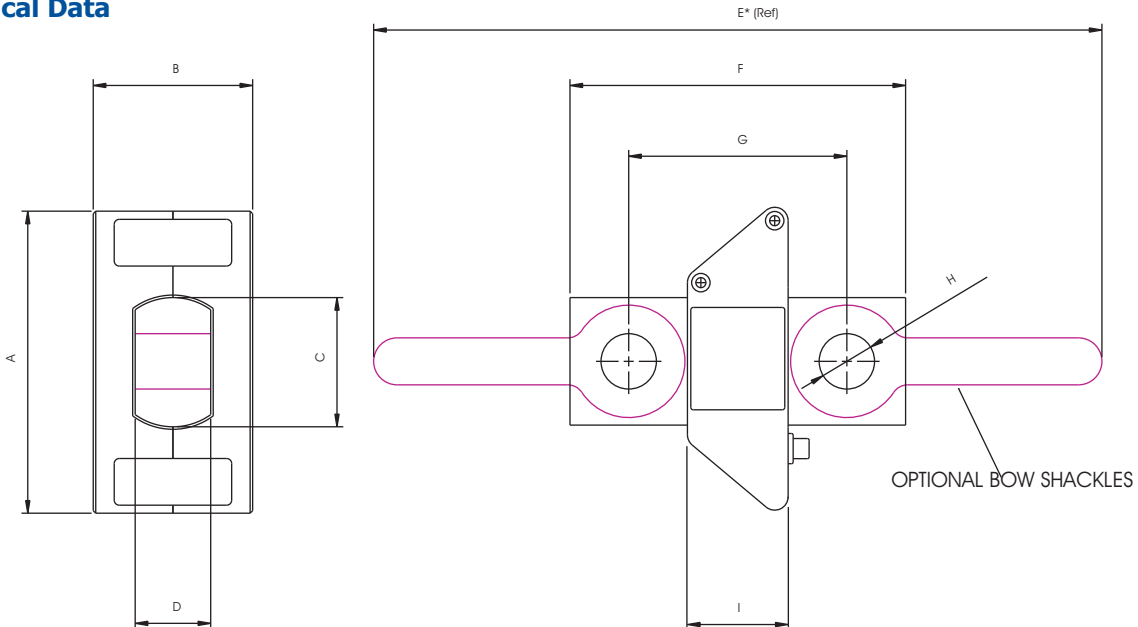
| FSD | A | B | C | D | F | G | H | I |
|---|---|---|---|---|---|---|---|---|
| 1 Tonne | 180.00 | 95.00 | 76.00 | 45.00 | 200.00 | 130.00 | 33.00 | 60.00 |
| 3 Tonne | 180.00 | 95.00 | 76.00 | 45.00 | 200.00 | 130.00 | 33.00 | 60.00 |
| 5 Tonne | 180.00 | 95.00 | 76.00 | 45.00 | 200.00 | 130.00 | 33.00 | 60.00 |
| 10 Tonne | 180.00 | 95.00 | 76.00 | 45.00 | 200.00 | 130.00 | 33.00 | 60.00 |
| 15 Tonne | 186.00 | 104.00 | 82.00 | 54.00 | 250.00 | 156.00 | 42.50 | 60.00 |
| 20 Tonne | 186.00 | 104.00 | 82.00 | 54.00 | 250.00 | 156.00 | 42.50 | 60.00 |

*E*  Length is dependant on shackle used*

Sensor Technology Ltd reserves the right to change specification and dimensions without notice.