

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. It is available in ranges from 1 to 50 Tonnes.

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.

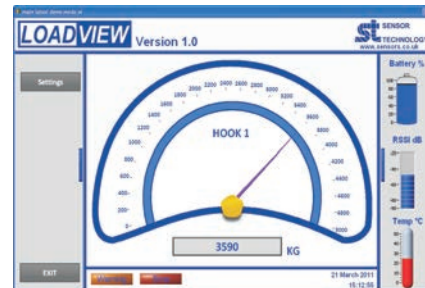
Software

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

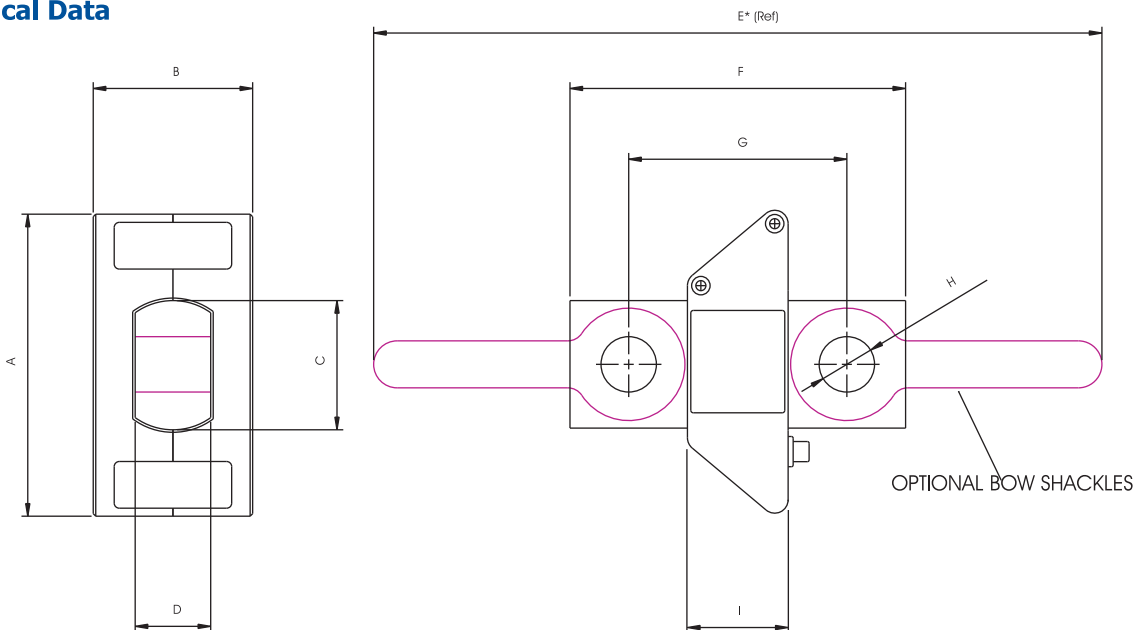
- Ranges from 1 to 50 Tonnes
- Wireless, so easy to install and remove between installations
- Transmits data up to a distance of 100m
- Transmits data at up to 10 times a second
- Internal Memory for up to 280 hours of data
- 11-28V external supply chargeable
- Connect to PC via USB
- PC software for customer settings
- Flexible automatic shutdown to conserve battery
- Dual ruggedised internal antennas
- FCC Part 15
- Import data into Excel

WLS-LC Series Load Transducers - Data Specification

Parameter	Variable
Nominal Load	1, 3, 5, 10, 15, 20, 25 and 50 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	-10°C to + 50°C
Storage Temp Range	-20°C to + 60°C
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 20°C
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



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.