LOADSENSE

WLS-LC series

Wireless Load Transducer

SENSOR TECHNOLOGY

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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 149 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.

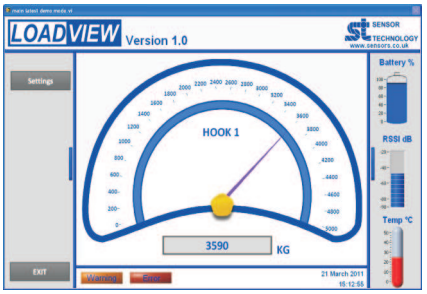
Software

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

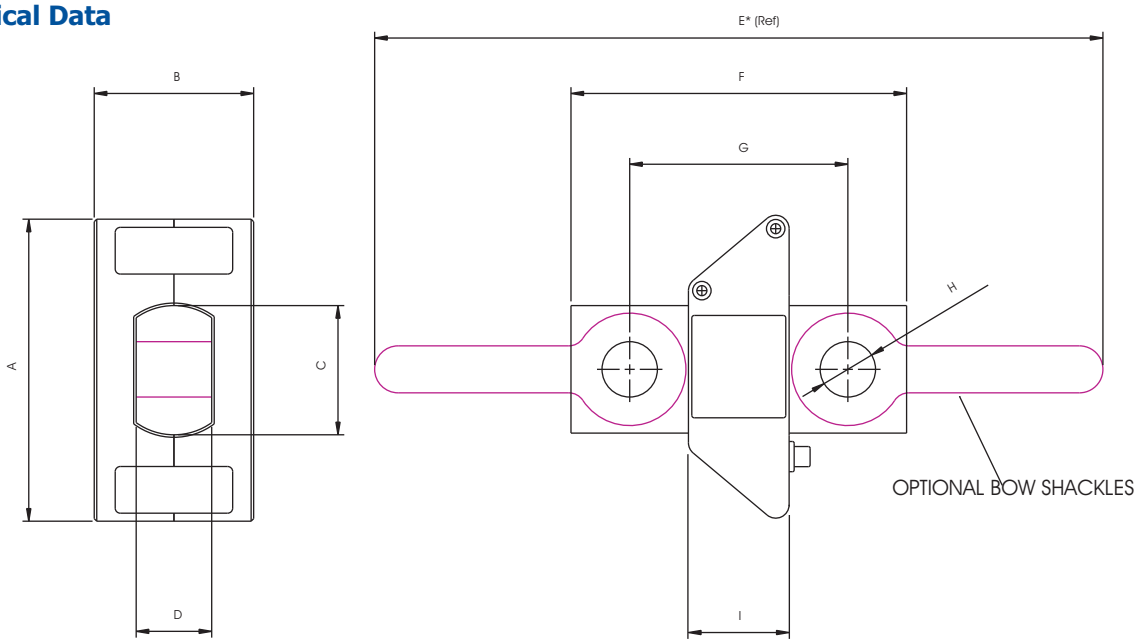
- Wireless, so easy to install and remove between installations
- Transmits data up to a distance of 30M
- Transmits data at up to 10 times a second
- Internal Memory for up to 150 hours of data
- USB or 5V to 28V external supply chargeable
- Connect to PC via USB
- PC software for customer settings
- Flexible automatic shutdown to conserve battery
- Dual ruggedised internal antennas

WLS-LC Series Load Transducers - Data Specification

Parameter	Variable	
Nominal Load	1, 3, 5, 10 Ton	
Accuracy	± 0.25%	
Max Overload	150%	
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	
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 pending	
Power Input - Battery		
Type	Li-Ion Varta LIC18650	
Voltage	3.7V 2200mAH	
Data transmit rate	Operating time at 20ºC	
1 / Sec	1000 Hours +	
10 / Sec	120 Hours	
Power Input - Charge Facilities		
Connector	USB	External Power
Voltage	5V	5V - 28V
Charge time (from complete discharge)	33 hours	3 hours

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

Mechanical Data



FSD	A	B	C	D	F	G	H	I
1 Ton	180.00	95.00	76.00	45.00	200.00	130.00	33.00	60.00
3 Ton	180.00	95.00	76.00	45.00	200.00	130.00	33.00	60.00
5 Ton	180.00	95.00	76.00	45.00	200.00	130.00	33.00	60.00
10 Ton	180.00	95.00	76.00	45.00	200.00	130.00	33.00	60.00
15 Ton	186.00	104.00	82.00	54.00	250.00	156.00	42.50	60.00
20 Ton	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.