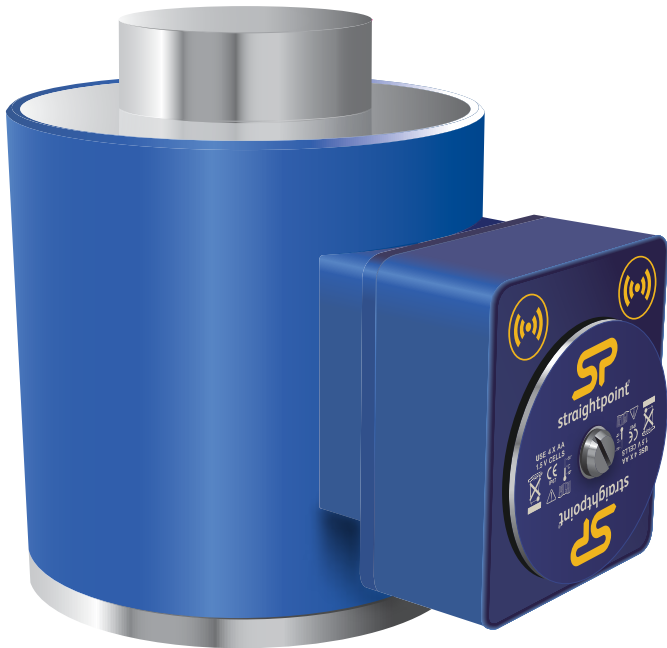


# Wireless Compression Load Cell



## Features and benefits:

- Proprietary 2.4 GHz wireless
- Industry leading wireless range of 700m/2300ft
- Connects to SW-MWLC, WCOGS & SW-PTP software
- Error free data transmission
- Internal antennae
- Environmentally sealed to IP67/NEMA 6
- No cable assemblies required
- Unrivalled resolution
- Unmatched battery life of 1200hrs
- Reduced maintenance cost
- Compact size
- Remote on-off
- Design validated by F.E.A.

**The Straightpoint Wireless Compression Load Cell is taking the heavy lift and structural weighing industry by storm. By adding the Straightpoint wireless system to the already popular compression load cell line we have developed a cost-effective alternative to standard compression load cells.**

No longer hindered by troublesome and hard to maintain cables, large scale projects can be completed in a fraction of time previously required. Maintenance costs are all but eliminated due to the absence of cables and connectors, and the products flexibility opens the door to a large number of applications in the heavy lift, energy, defence, rigging, shipping, and general transportation sectors, previously not considered.

Straightpoint's Wireless Compression Load Cells are machined from high grade stainless steel, providing excellent strength and corrosion resistance. The heavy duty, compact load cell utilises Straightpoint's advanced microprocessor based electronics and benefits from unrivalled resolution and accuracy. Data transmission is handled by the Straightpoint wireless systems proprietary transport protocol, is unmatched in performance and capable of a licence free transmission range of up to 700 metres or 2300 feet.

It is not until you add the powerful array of wireless accessories that the full potential of this product is realised. These accessories which include a wireless signal booster and several user friendly Windows-based software packages, provide a level of flexibility not previously known in the load monitoring industry.

When used with Straightpoint's WCOGS software these load cells will calculate centre of gravity and load. Connected to SW-MWLC it will allow the ability to data log and print reports, allowing the simultaneous display and monitoring of up to 100 wireless compression load cells on your PC or tablet. Lastly, coupled with Straightpoint's SW-PTP software the operator can perform load tests at a safe distance and generate real time test certificates on site.



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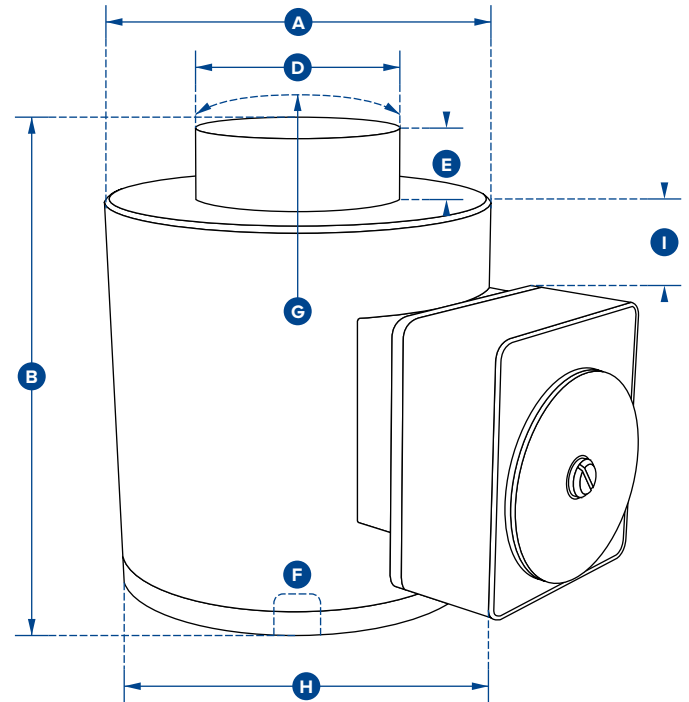
Also available with hazardous area approval



**ATEX / IECEX**  
Ex ia II C T4 Ga

Certification numbers:  
**WNI ATEX**  
IECEX SIR 16.0041X / Sira 16ATEX2108X  
**SW-HHP ATEX**  
IECEX SIR 15.0072X / Sira 15ATEX2196X

**Add 'ATEX' to the part number when ordering ATEX/IECEX products. For example: WNI5TC-ATEX**



Part Number	WNI5TC	WNI10TC	WNI25TC	WNI50TC	WNI100TC	WNI150TC	WNI300TC	WNI500TC
Capacity	5te	10te	25te	50te	100te	150te	300te	500te
	11000lb	22000lb	55000lb	110000lb	220000lb	330000	660000lb	1100000lb
Resolution	0.001te	0.002te	0.005te	0.01te	0.05te	0.05te	0.1te	0.2te
	2lb	5lb	10lb	20lb	100lb	100lb	200lb	500lb
Units	tonne							
	lb							
Weight	6.2kg	6.2kg	6.2kg	6.2kg	15.5kg	15.5kg	65kg	65kg
	13.64lb	13.64lb	13.64lb	13.64lb	34lb	34lb	143lb	143lb
Safety Factor	3:1							
Battery Type	Load cell 4 x AA Alkaline							
Battery Life	Load cell 1,200 hours continuous							
Operating Temp	-10°C to +50°C / 14°F to 122°F							
Accuracy	±0.3% of applied load							
Frequency	2.4 GHz							
System Range	700 metres / 2300 feet							
Data Rate	3Hz (configurable to 200Hz)							
Protection	IP67 / NEMA 6							
Dimension ØA	102	102	102	102	152	152	185	185
	4.02"	4.02"	4.02"	4.02"	5.98"	5.98"	7.28"	7.28"
Dimension B	127	127	127	127	184	184	300	300
	5.00"	5.00"	5.00"	5.00"	7.24"	7.24"	11.81"	11.81"
Dimension ØD	59	59	59	59	80	80	155	155
	2.32"	2.32"	2.32"	2.32"	3.15"	3.15"	6.10"	6.10"
Dimension E	13	13	13	13	26	26	27.5	27.5
	0.51"	0.51"	0.51"	0.51"	1.02"	1.02"	1.08"	1.08"
Dimension F	M18 x 2.5	M18 x 2.5	M18 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5
	M18 x 2.5	M18 x 2.5	M18 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5	M20 x 2.5
Dimension G	152	152	152	152	432	432	432	432
	5.98"	5.98"	5.98"	5.98"	17.01"	17.01"	17.01"	17.01"
Dimension H	158	158	158	158	208	208	241	241
	6.22"	6.22"	6.22"	6.22"	8.19"	8.19"	9.49"	9.49"
Dimension I	8	8	8	8	33	33	49	49
	0.31"	0.31"	0.31"	0.31"	1.30"	1.30"	1.93"	1.93"

# Handheld plus



**Wall or Cab Mount Bracket**  
available for handheld  
Part No. SU3282

## Features and benefits:

- Overload counter
- User settable 90db audible overload alarm
- Multiple display units – tonnes, lbs, kg and kN
- 100Hz Peak hold
- Pre-set tare
- Wireless range 700m/2300ft

**The Handheld plus is a rugged and versatile digital handheld display with a broad range of features and suitable for all Straightpoint load cell products.**

At the heart of the ergonomically designed Handheld plus is a powerful PCB providing industry leading features such as user selectable units of measure (tonnes, lbs, kg and kN), programmable audible overload alarm, peak hold, pre-set tare and a user resettable overload counter.

This crucial overload alarm counter is a requirement for many safety and quality control departments, as it keeps track of overload events, allowing the load cell in question to be removed from service immediately, following the calibration voiding overload event. The load cell in question can then be sent out for proper testing and, if necessary, recalibration before re-entering service.

The HHP is suitable for connection via cable to any Straightpoint cabled load cell product and easily adapted to any other manufacturers' load cell product with a mv/v output.

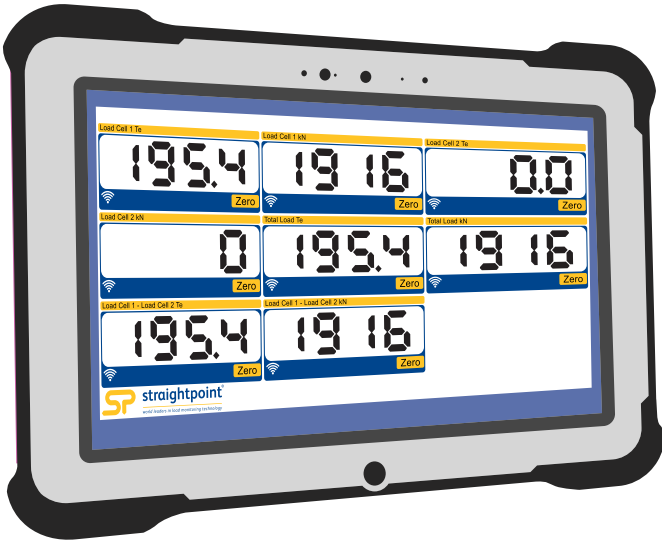
In addition to the standard HHP the SW-HHP is suitable for connection to any Straightpoint wireless load cell, has a range of up to 700m/2300ft and is supplied as standard with the Radiolink plus load cell.

Part Number	SW-HHP	HHP
Battery Type	2 x AA	1 x PP3 9v alkaline
Battery Life	60hrs continuous	80hrs continuous
Display Type	6 digit 25mm LCD / 6 digit 1" LCD	
Operating Temp	-10°C to +50°C / 14°F to 122°F	
Display Rate	3Hz	
Protection	IP65 / NEMA 4X	
Excitation	N/A	5v
Max Sensitivity	N/A	3mv/v
Max Resolution	1:999999 (normal mode)	
Connectivity	Wireless 2.4GHz	6-way female binder 423 socket



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# SW-RWT *Rugged tablet*



## Features and benefits:

- Light weight platform and ultra-mobility
- Hot-swappable Li-Ion Battery Pack
- Operating Environment
  - MIL-STD-810G Certified
- IP65 Rated protection from sand, dust and water
- Vivid Display in any Environment
- Windows 10 Enterprise LTSB (64-Bit)
- Standard I/O features – RS232, RJ45
- 2 USB Ports and a Micro SD slot

The SW-RWT tablet is the latest generation fully-rugged tablets. Featuring an array of integrated options, and a sleek, sophisticated design, the SW-RWT will change the way you look at tablets. With a MIL-STD-810G rating and Windows® 7 Pro, the SW-RWT can go from the boardroom to the work site without missing a beat.

### *Exceeding rugged standards*

Refined by over a decade of real world customer feedback and experience in the rugged space, the SW-RWT is the most rugged tablet in its class.

Boasting a 5 foot drop rating, the SW-RWT's core construction features a lightweight magnesium alloy mid-frame in an ultra-portable form factor for the utmost rugged reliability.

Featuring MIL-STD-810G and IP65, the SW-RWT is engineered to protect critical lift data under the most demanding conditions.

### *For in the field critical lifts*

Whether using the Straightpoint SW-MWLC multiple loadcell software or our ground breaking Centre of Gravity system the SW-RWT sets the standard for field mobility.

A full shift hot-swappable battery, lasting up to fourteen hours, maximizes time in the field and boosts productivity.

The brilliant outdoor viewable, multi-touch display allows seamless transition from indoor to outdoor use.

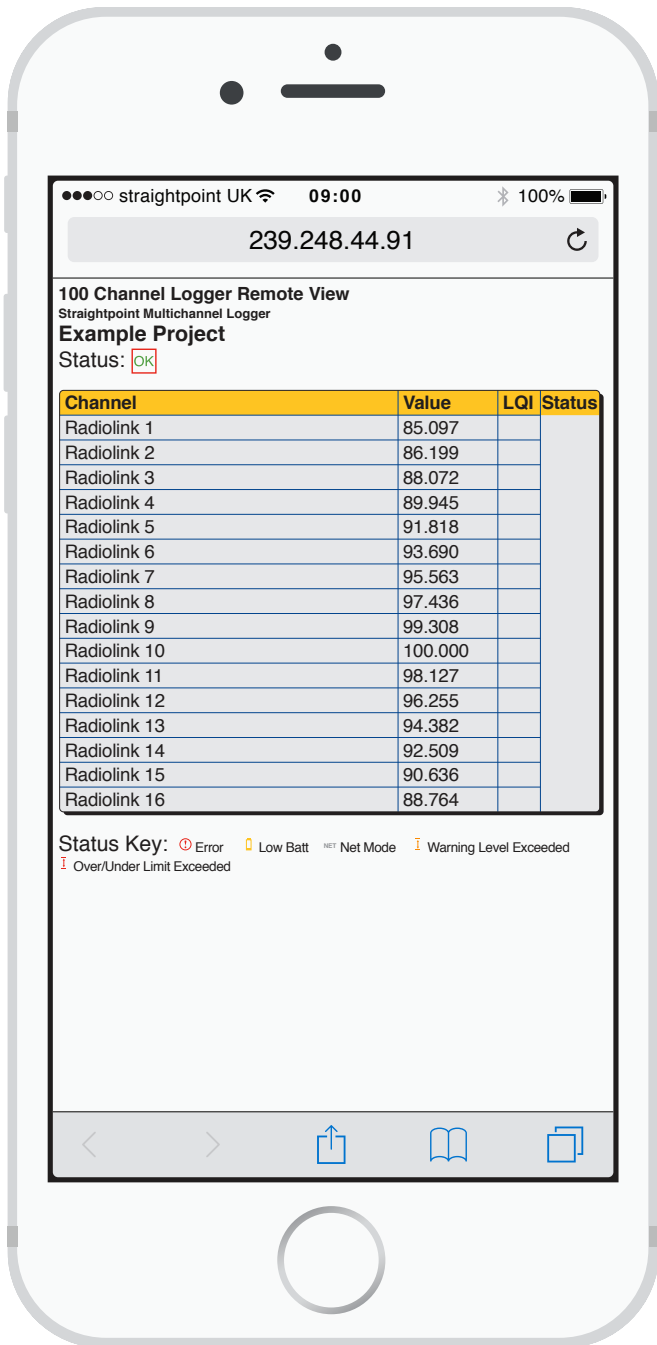
Supplied with carrying straps the SW-RWT is an ideal tablet for field applications running the Straightpoint suite of software solutions.



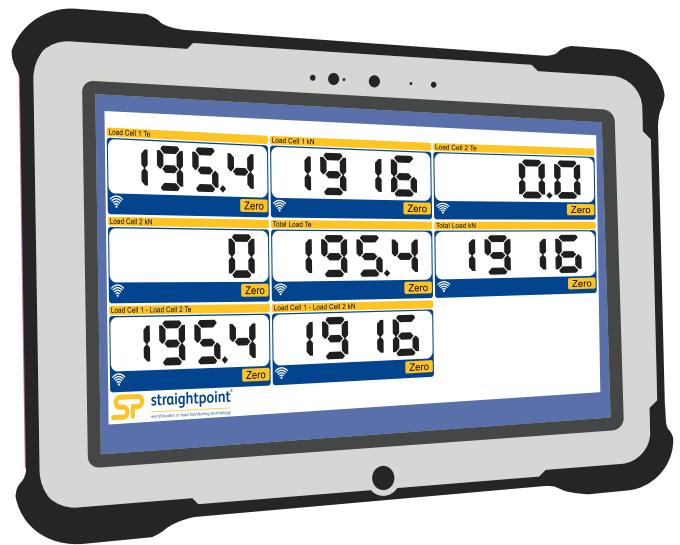
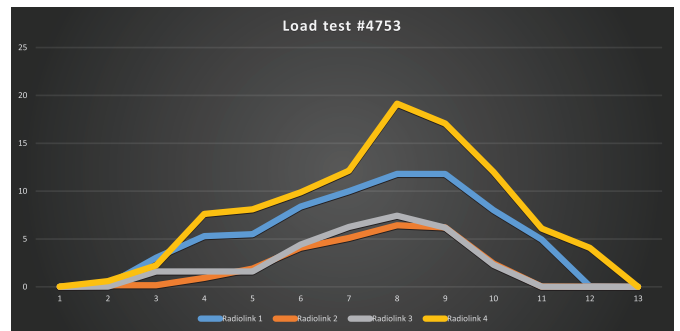
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<b>Size</b>	275 mm x 171 mm x 32 mm (10.8" x 6.7" x 1.2")
<b>Weight</b>	1.3kg (2.9 lbs)
<b>Processor</b>	Intel® quad-core N2930 1.83 GHz Processor with 2.16 GHz boost.
<b>Screen</b>	10.1" (16:10) 1920x1200 resolution LED high-brightness MaxView™ Technology. 10 points projective capacitive touch. Ambient light sensor. Rain and glove mode.
<b>Memory/Disk</b>	4GB DDR3 RAM/128 GB SSD
<b>Operating System</b>	Windows 10 Enterprise LTSB (64-bit)
<b>Data Security</b>	TPM V1.2
<b>Keyboard/Keypad</b>	<ul style="list-style-type: none"><li>• Power key</li><li>• Menu key</li><li>• Touch Lock key</li><li>• Windows Home key</li><li>• 2 Programmable Hotkeys</li><li>• On-screen QWERTY soft keyboard</li></ul>
<b>Battery</b>	Hot-swappable Li-Ion Battery Pack: Standard battery: 5300 mAh (39.22 Wh) Extended battery: 10600 mAh (78.44 Wh)
<b>Connections</b>	1 x USB 2.0 port* 1 x USB 3.0 port 1 x 9-pin serial RS-232 port* 1 x VGA* 1 x DC power port* 1 x RJ45 10/100/1000 LAN 1 x microSD Slot, SDXC 1 x Audio/Microphone *IP65 with open cover
<b>Docking Connector</b>	Contact Pin Type 1 x External GPS/GLONASS antenna input 1 x External GSM antenna input
<b>Communication</b>	Audio: Speaker / Digital Microphone / Headset jack PAN: Integrated BT v4.0 LE / v2.1 Cellular (WWAN): Sierra Wireless MC7304 / MC354 LTE HSPA+ GSM/GPRS Wireless LAN: 802.11ac a/b/g, n Dual Band 2.4/5GHz
<b>Navigation</b>	Integrated u-blox® NEO-M8N, GPS & GLONASS, WAAS/EGNOS/MSAS-capable
<b>Camera</b>	5 Megapixel Camera + LED flash
<b>Environment</b>	Operating: -20 °C to 60 °C (-4 °F to 140 °F) MIL-STD-810G, Method 501.5 Procedure II MIL-STD-810G, Method 502.5 Procedure II, III  Storage: -40 °C to 70 °C (-40 °F to 158 °F) MIL-STD-810G, Method 501.5 Procedure I MIL-STD-810G, Method 502.5 Procedure I  Drop: 26 drops from 1.22 m (4 ft) to concrete MIL-STD-810G, Method 516.6 Procedure IV  Vibration: MIL-STD-810G, Method 514.6 Procedure I Sand & Dust: IP65, IEC60529 Water: IP65, IEC60529 Humidity: MIL-STD-810G, Method 507.5 Procedure II Altitude: 4572 m / 15,000 ft MIL-STD-810G, Method 500.5 Procedure I



Date	Time	Elapsed mS	Radiolink 1	Radiolink 2	Radiolink 3	Radiolink 4	Total Load
10/03/2015	10:41:38	1000	0.01	0	0	0.02	0.03
10/03/2015	10:41:39	2000	0.23	0.16	0.03	0.59	0.73
10/03/2015	10:41:40	3000	3.04	0.16	1.6	2.23	14.17
10/03/2015	10:41:41	4000	5.3	0.94	1.6	7.62	32.45
10/03/2015	10:41:42	5000	5.5	1.9	1.6	8.1	36.72
10/03/2015	10:41:43	6000	8.39	4.09	4.42	9.87	46.37
10/03/2015	10:41:44	7000	9.99	5.11	6.26	12.13	62.56
10/03/2015	10:41:45	8000	11.8	6.43	7.43	19.14	72.8
10/03/2015	10:41:46	9000	11.79	6.2	6.18	17.06	73.85
10/03/2015	10:41:47	10000	8.01	2.43	2.3	12	52.72
10/03/2015	10:41:48	11000	4.94	0.02	0.01	6.09	32.69
10/03/2015	10:41:49	12000	0.06	0.01	0	4.08	15.19
10/03/2015	10:41:50	13000	0	0	0	0	-3.53





**Straightpoint's Multiple Wireless Load Cell Controller (SW-MWLC) software package is a versatile, user friendly, wireless load cell control, display and data logging tool designed for use on the Windows PC platforms, Vista, Win 7, 8 & 10.**

SW-MWLC allows simultaneous, wireless communication between Straightpoint wireless load cells and a Windows PC. A resizable window displays a table of up to 100 wireless load cell channels of live data. Channels can be setup with user defined mathematical functions that can be used to calculate a multitude of results.

For example, a display can show the value from a single load cell or the sum of multiple load cells. Visual display and audio alarms can indicate under and over range as well as loss in communications, low battery and error reports. SW-MWLC can log on demand, at pre-set intervals, on entering and leaving a pre-set overload and during an overload. Data is logged to a CSV file which can be opened for analysis by software programs such as Microsoft Excel. JSON format data is also available on demand via the built in web server.

For more complex applications, graphical pages can be built showing the data in a variety of formats including digital display or bar graphs. Up to eight pages can be defined and the pages easily navigated between a variety of image formats that can be imported, including JPG, GIF, PDF and DXF.

Custom applications including branding and colour scheme are available. Please contact Straightpoint's sales department for pricing.

SW-MWLC software is supplied with a SW-USBBSE extended range USB transceiver.

## Features and benefits:

- Displays and logs data up to 100 Straightpoint wireless load cells simultaneously
- Mapping/graphical capabilities
- Webserver offers remote viewing on iPads/tablets/smart phones and also supplies JSON data on demand
- Logging at timed intervals, manual or on overload/underload
- Visual and audible alarms indicates overload, low battery and communications error
- Zoom in to channel to see data trends and history
- Export and log data in CSV format

Part Number	SW-MWLC
IP rating	IP54
(SW-USBBSE)	NEMA 3
Operating Temp	-10°C to +50°C 14°F to 122°F
Licence	Licence free
Frequency	2.4 GHz
Range	700 metres 2300 feet
Load Cell Inputs	Up to 100
PC Requirements	Intel i3 processor with 2GB RAM
Operating System	Windows XP, Vista, Windows 7, 8 or 10

# SW-SD *Wireless scoreboard display*



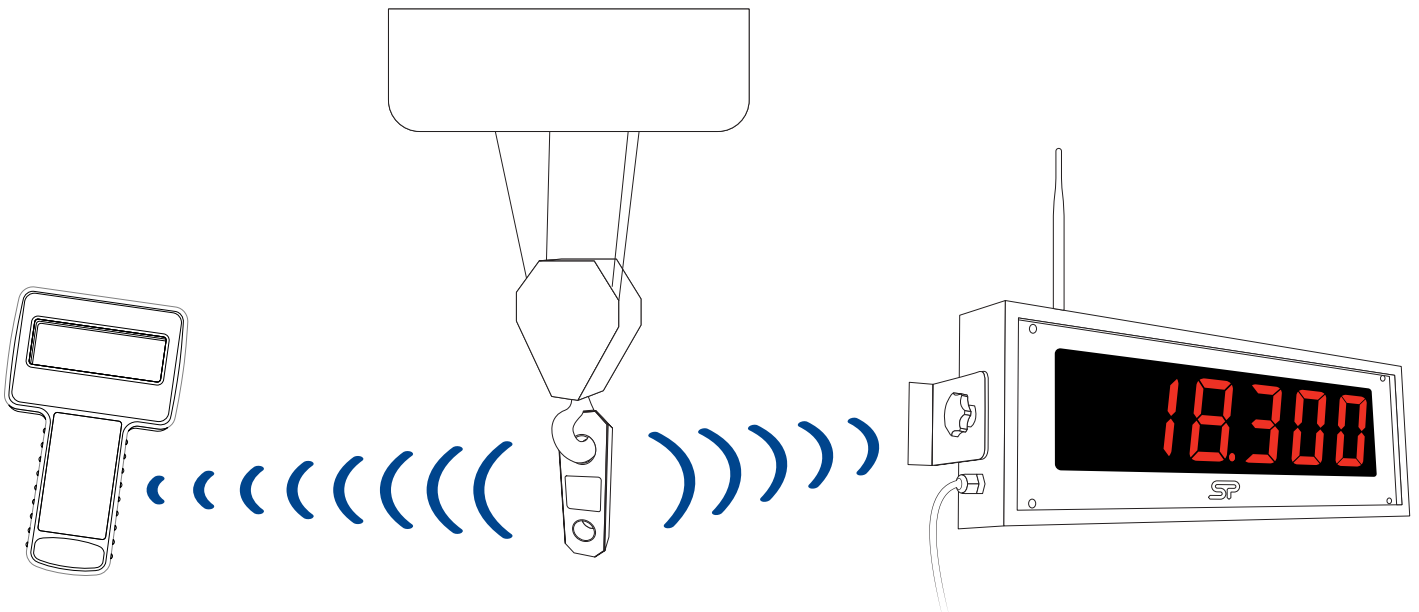
## Features and benefits:

- Easy to read 100mm /4" LED display
- Rugged steel case
- Wall mount brackets supplied
- External antennae for maximum range
- Wide range for power supply input

**This 100mm (4") scoreboard LED display is wireless and viewable for up to 45m/150ft.**

Perfect for installation on a crane gantry, the unit operates on 110-240 VAC and displays an individual load or summed load for up to eight Straightpoint wireless devices.

### Solution



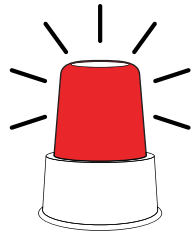
Parameter	Minimum	Typical	Maximum	Units
External supply voltage range	110	240	250	Volts AC
Average operational current	-	1A	3.5A peak	mA
Operating temperature range	-20°C (-4°F)	-	65°C (149°F)	°C (°F)
Storage temperature range	-20°C (-4°F)	-	65°C (149°F)	°C (°F)
Range	700m / 2300ft			



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# SW-OAM *Wireless overload alarm module*



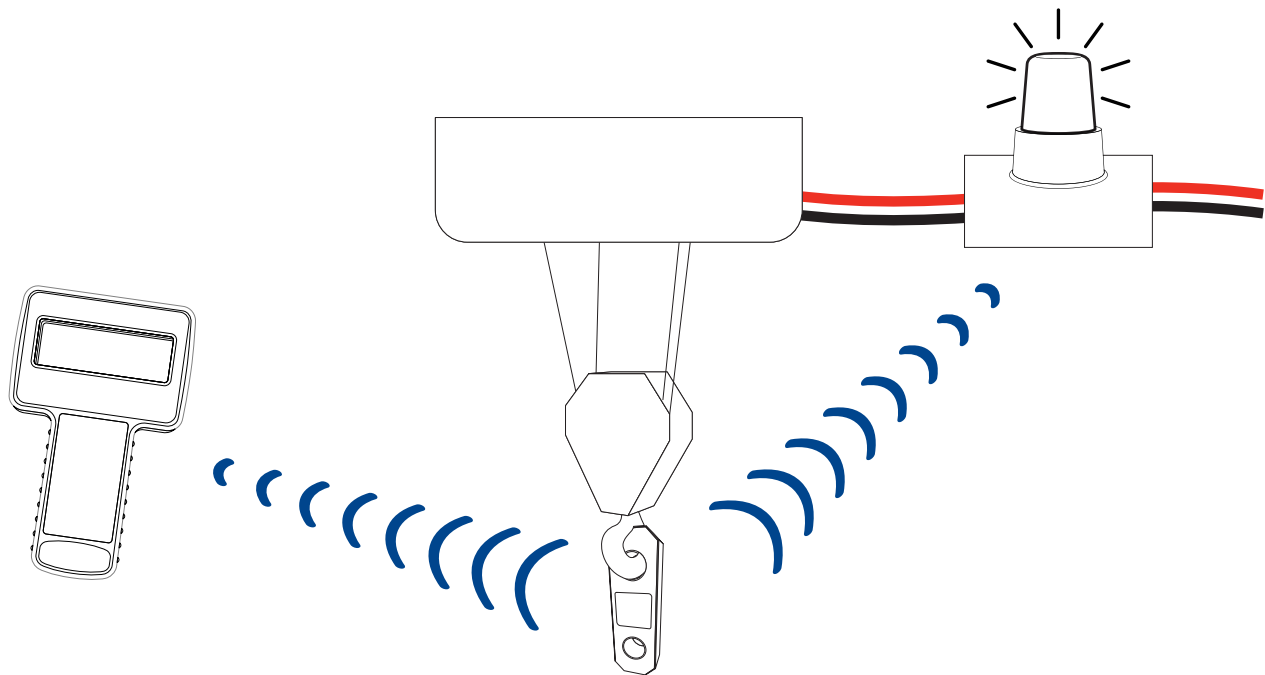
The SW-OAM is a wireless relay module featuring audio and visual warning indicators.

The unit's two set point alarms can be triggered from a single or summed group of up to eight Straightpoint wireless load cells. The SW-OAM is ideal as a wireless overload detection system.

## Features and benefits:

- Spare relay contacts to allow connection to other device
- Audible and visual alarm
- Wireless connection to load cell
- Fully configurable
- Wide range for power supply input
- IP65/NEMA 4 Enclosure

### Solution

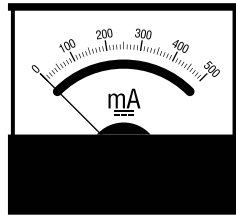


Parameter	Minimum	Typical	Maximum	Units	Notes
Supply voltage range	9	12	32	Volts	
Operational current - no relays active	-	60mA		mA	At 12V supply TBC
Operational current - all relays active	-	80mA		mA	At 12V supply TBC
Operating temperature range	-10°C (14°F)	-	60°C (149°F)	°C (°F)	
Storage temperature range	-20°C (-4°F)	-	65°C (149°F)	°C (°F)	
5 amp relays	-	240V 5A			
Range	700m / 2300ft				



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# SW-AO1i *Wireless base station with analogue output*



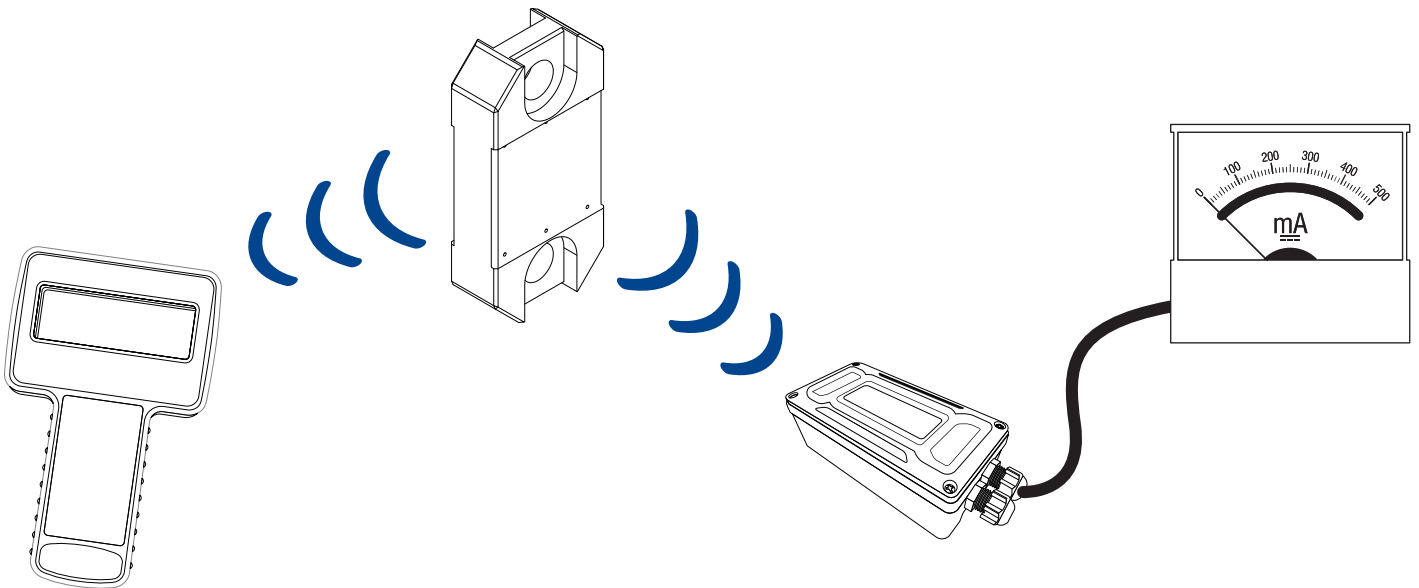
The SW-AO1i provides a configurable analogue output for any single Straightpoint wireless load cell and is ideal for integration to a PC, PLC or other data acquisition system.

Housed in a IP65/NEMA4X enclosure, the output can be selected from pre-calibrated voltage and current ranges of 0-5vdc, +-5vdc, 0-10vdc, +-10vdc, 0-20mA, 4-20mA.

## Features and benefits:

- Full option of analogue outputs such as 0-10v & 4-20mA
- Output can be changed in the field to suit different devices
- Wireless connection to load cell
- Fully configurable
- Wide range for power supply input
- IP65/NEMA 4 Enclosure

### Solution



Parameter	Minimum	Typical	Maximum	Units
Licence		Licence exempt		
Modulation method		MS (QPSK)		
Radio type		Transceiver (2 way)		
Data rate		250		K bits/sec
Radio frequency	2.4000		2.4835	GHz
Power		1		mw
Range			700 (2300)	Metres (feet)
Channels (DSSS)		16		



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# SW-SO *Serial output ASCII string module*



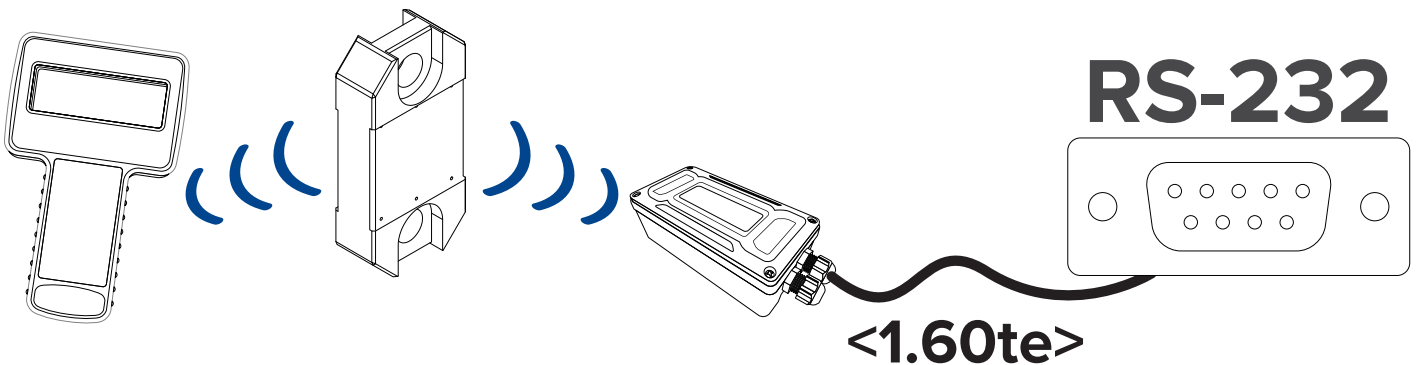
**Ideal for integration to a PC, PLC or other device requiring a simple RS232 serial input.**

This module allows for a user defined ASCII string which can include individual or summed data from up to eight Straightpoint wireless load cells.

## Features and benefits:

- Sums up to 8 loadcells to digital output
- ASCII programmable using tokens
- RS232/RS485 output
- Fully configurable
- Wide range for power supply input
- IP65/NEMA 4 Enclosure

### Solution



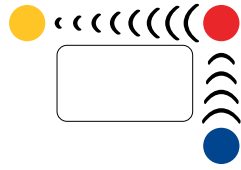
Parameter	Minimum	Typical	Maximum	Units	Notes
External Supply Voltage	9	12	32	Volts	
Average Operational	-	TBD	500	mA	
Operating Temperature	-40°C (-40°F)	-	65°C (149°F)	°C (°F)	
Storage Temperature	-40°C (-40°F)	-	65°C (149°F)	°C (°F)	
Reverse Polarity		-	-32	Volts	
Licence		Licence exempt			Maximum supply level
Modulation Method		MS (QPSK)			
Radio Type		Transceiver (2 way)			
Data Type		250		K bits/sec	
Radio Frequency	2.4000		2.4835	GHz	
Power		1		mw	
Range			700 (2300)	Metres (Feet)*	
Channels (DSSS)		16			

\*Maximum range achieved in open field site at height of 3 metres (9.8 feet) above ground.



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# SW-SB *Wireless signal booster*



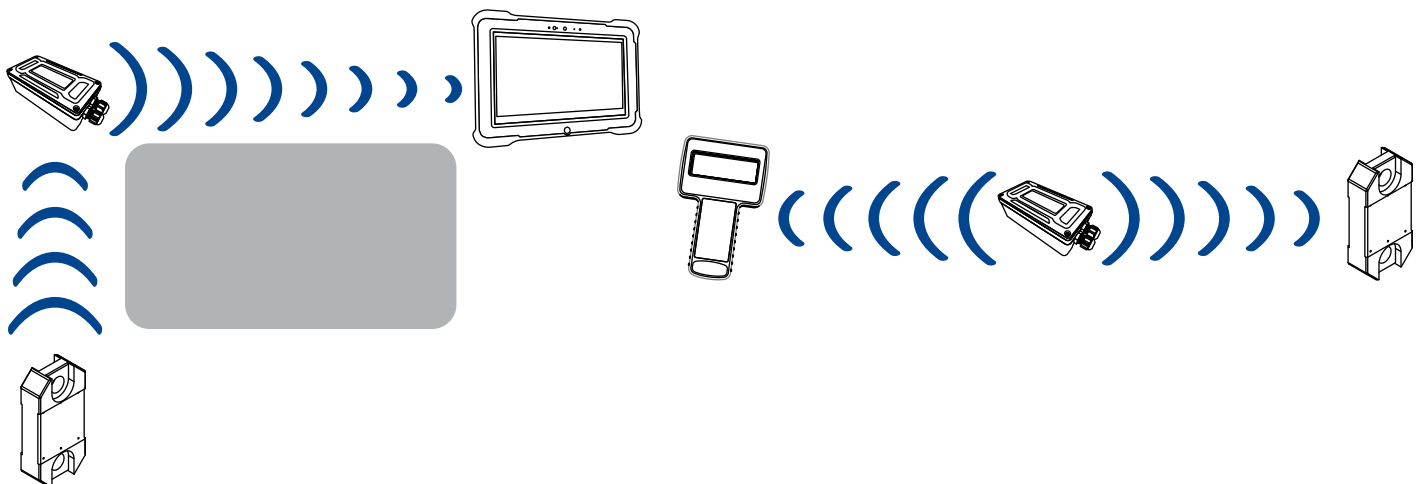
The SW-SB signal booster/repeater module is battery operated and easily pairs to any Straightpoint wireless device.

Within range, a load cell, accessories or software solutions can quickly increase coverage and extend range.

## Features and benefits:

- Powered by standard 'D' cell alkaline batteries
- Long battery life
- 'Self learning' no programming required
- Double range of loadcell to manoeuvre RF around obstacles
- Wide range for power supply input
- IP65 / NEMA 4X Enclosure

### Solution



Electrical	Minimum	Typical	Maximum	Units
Battery supply voltage	2.1	3.0	3.6	Vdc
External power supply voltage	5		18	Vdc

Environmental	Minimum	Typical	Maximum	Units
IP rating		IP65 / NEMA 4X		
Operating temperature	-40°C (-40°F)		+65°C (149°F)*	C
Storage temperature	-40°C (-40°F)		+65°C (149°F)	C
Humidity	0		95	% RH
Range		700m / 2300ft		

\*Check operating temperature of cells intended for use.



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# SW-GW1 Modbus RTU/ASCII Gateway



## Features and benefits:

- Proprietary 2.4GHz Wireless
- Industry Leading Wireless Range
- Error Free Data Transmission
- Modbus RTU or ASCII interface (RS232/RS485)
- Gathers data from up to 100 transmitters
- Environmentally Sealed (IP65/ NEMA4)

The SW-GW1 is a Modbus interface gateway that provides a simple interface allowing users to gather data from Straightpoint Wireless devices using either the standard Modbus RTU protocol or a simple ASCII protocol.

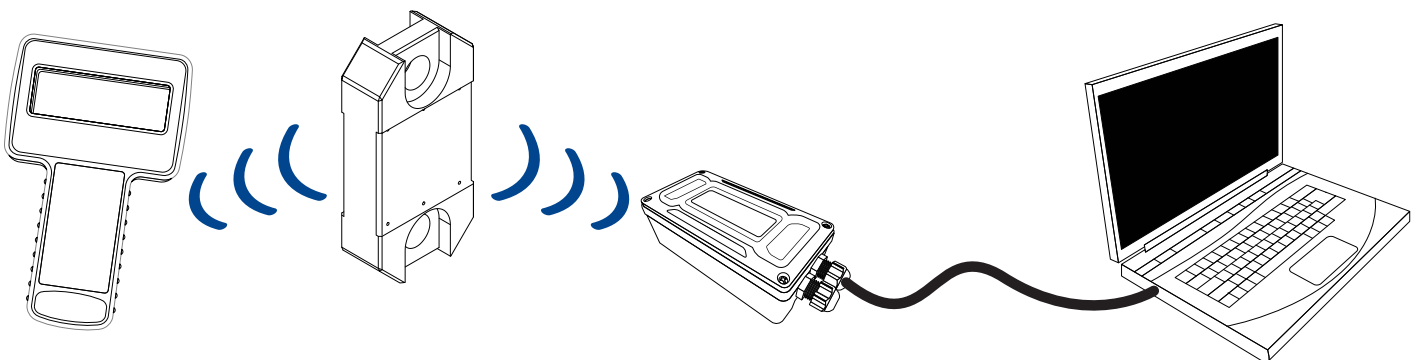
This gateway allows for the collection of data from up to 100 Straightpoint Wireless devices and provides for simple commands such as wake, sleep, and keep awake.

The license-free 2.4GHz Wireless System offers high integrity, error free communications.

The electronics are housed in a NEMA 4/IP65 environmentally sealed enclosure.

The SW-GW1 is ideal for integration to a PC, PLC, or other DAQ system accepting a simple Modbus RTU or ASCII serial communications protocol.

## Solution



Parameter	Minimum	Typical	Maximum	Units	Notes
External supply voltage	9	12	32	Volts	
Average operational		TBD	500	mA	
Operating temperature	-40°C (-40°F)		65°C (149°F)	°C (°F)	
Storage temperature	-40°C (-40°F)		65°C (149°F)	°C (°F)	
Reverse polarity			-32	Volts	Maximum supply level
Licence		Licence exempt			
Modulation method		MS (QPSK)			
Radio type		Transceiver (2 way)			
Data type		250		K bits/sec	
Radio frequency	2.4000		2.4835	GHz	
Power		1		mw	
Range			700m / 2300ft	Metres (Feet)*	
Channels (DSSS)		16			

\*Maximum range achieved in open field site at height of 9.8 feet (3 metres) above ground.



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