

# smartlink<sup>2</sup> EE Guide

## Product Description

smartlink<sup>2</sup> EE are wireless load sensors, manufactured in titanium to be the lightest, strongest and smallest load sensors on the market. Designed in collaboration with leading race teams, smartlink<sup>2</sup> EE will help you measure and repeat your fast settings every time.

## How it works

Simply add inline eye-to-eye or pin-to-pin fittings. Easily connect the sensor to your phone via the latest smartphone app or to marine electronics via an optional smartfittings gateway for immediate load data.

## Correct loading with pin-to-pin rigging

smartlink<sup>2</sup> EE is designed to be loaded inline with pin-to-pin/eye-to-eye riggings such as shackles or any pin configurations.

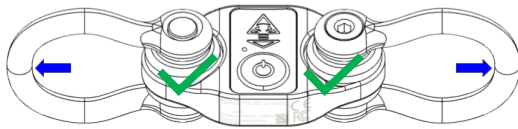


Figure 1: Correct set-up with smartlink<sup>2</sup> EE. Blue indicates the loading on the shackles.

## Shackles

Cyclops Marine recommends using 17-4 PH shackles or pins matched to the diameter of the holes in the sensors to achieve the stated  $\pm 1\%$  of working load limit (WLL) accuracy. Below is the pin diameter that matches the hole diameter of the sensors.

Model	2tee (SE01)	5tee (SE02)	10tee (SE03)	20tee (SE05)
Pin Diameter (mm)	12	19	28.6	34.9

## Intended use

The sensors are only intended to be used with eye-to-eye or pin-to-pin fixing. It is not recommended to be used with soft shackles or strops. The WLL should be adhered closely to prevent damage to the sensor.

## Safety

Please read all instructions before using smartlink<sup>2</sup> EE to measure loads. Always perform a safety evaluation before use to ensure that the use of the sensor is not dangerous to nearby people or property.

smartlink<sup>2</sup> EE is **not intended** to support personnel working aloft. Please follow all standard working aloft safety procedures.

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The sensor should be ceased from operation if there is an error indication either in the app or any external display.

## Overload

The WLL of a smartlink<sup>2</sup> EE must **NOT** be exceeded, as this may cause damage to the internal instrumentation and will invalidate the warranty.

**SHOCK LOADING (i.e. shackles failure) OR OVERLOADING OVER 150% OF WLL MAY RESULT IN PERMANENT DAMAGE TO THE SENSOR THAT WILL REQUIRE RECALIBRATION.**

## Inspection and maintenance

It is recommended to check the dimensions of the sensor periodically as stated in the technical data.

The only maintenance needed is to charge the sensor with the provided charger. Please do not attempt to repair the sensor by removing any parts from the product. Please contact Cyclops for further information.

## Calibration

If smartlink<sup>2</sup> EE has been under load for a significant length of time, the sensor may take 1-2 minutes to return to zero when the load is removed. This is to be expected.

A significant impact on the body of the sensor can affect the calibration. This would require the device to be returned powered-on for inspection and re-calibration.

## smartpower button

smartlink<sup>2</sup> EE has 3 modes: powered on, extended use & off.

Mode	Powered on	Extended use	Powered off
A quick button press shows	Green flash	Red flash	Red flash
How to activate modes	Long press to green flash	Long press to red flash	Very long press to red flash x2
Frequency	1 Hz	0.25Hz	No data
Ideal for	General usage	Battery saving	Shipping
Battery life	2000 hrs	8000 hrs	2 years

Extended use and powered-off modes can only be activated from powered on mode.

Please keep this document for future reference

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## Wireless charging (🔌)

To charge smartlink<sup>2</sup> EE with the wireless charger, plug the charger into a USB port or power plug (not supplied), a quick blue flash on the charger indicates it has been powered on. Place the smartlink<sup>2</sup> EE on the charger with the wireless charging logo facing the charger.



The sensor is charging when the LED constantly flashes red.

The sensor is >90% charged when the LED turns green.

## LED light indication

At <20% charge, LED indications during on and extended use modes will be a double flash.

## Technical Data

Model	WLL (tonnes)	Dimensions (mm)	Safety factor	Mass (g)	Accuracy range* (kg)
<b>2tee (SE01)</b>	2	97x52x17.11	x4	160	±20
<b>5tee (SE02)</b>	5	120x66x19	x4	390	±50
<b>10tee (SE03)</b>	10	140x72x28	x4	710	±100
<b>20tee (SE05)</b>	20	156.9x80x40	x4	770	±200

\*Accuracy range achieved using standard shackles as recommended above.

Frequency 1Hz (from factory)

Accuracy ±1% of WLL (between -10 to +40°C)

Body Material Ti6Al4V

Housing Material PC/ABS, IP68 rated

Battery Lithium Polymer, 0.925Wh

Year manufactured 2024

smartlink<sup>2</sup> EE are not warranted to be accurate for the purposes of buying/selling products by weight.

## Handling and storage

It is recommended to turn off the sensor when it is not going to be used for an extended period.

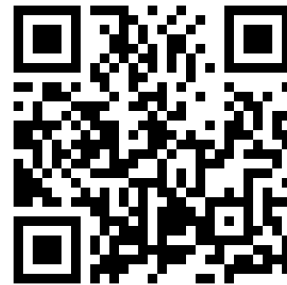
Avoid exposing the sensor to conditions where rapid heat cycles occur and always work between -10 to +40°C for the best performance.

Avoid dropping the sensor or exposing the sensor to high impact as this may affect the calibration and require it to be recalibrated at Cyclops.

## Displaying Load Data

For both seeing live loads and logging load data, either a mobile phone or a Cyclops Marine Gateway should be used. Scan the applicable QR code below for instructions.

smartfittings manager app tutorial:



smartfittings gateway installation guide:



## Declaration of Conformity

This product conforms to the Machinery Directive 2006/42/EC. Scan the QR code to access the certificate digitally.

