

smartlink² Guide

Product Description

smartlinks 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 will help you measure and repeat your fast settings every time.

How it works...

Simply add inline of any 'soft' stay or sheet. Easily connect the sensor to your phone via the latest smartphone app or to marine electronics via optional smartfittings gateway for immediate load data.

Correct loading with soft lines

smartlink is designed to be loaded inline with soft lines/rope/strops, for the most accurate load measurement. If smartlink is loaded in a bridle configuration the displayed load will be inaccurate.

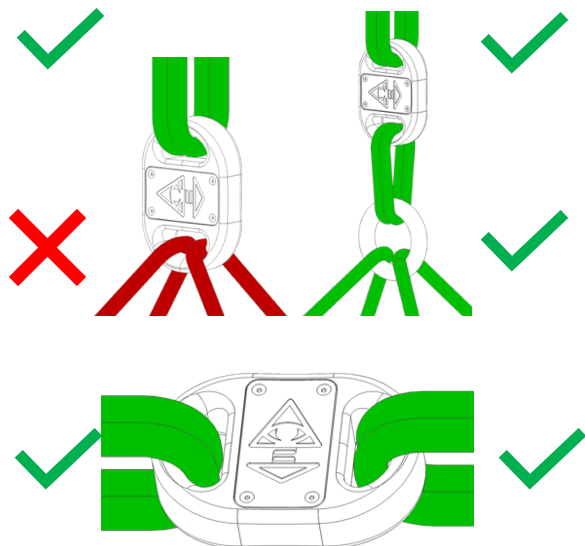


Figure 1 Incorrect and correct strop loading

Use of metal shackles/pins directly on smartlink is not advised as it may mark the titanium body and could cause permanent damage.

Strops

The strops used for final calibration are built using wound Dyneema cored basket loops, to the below finished diameter. Cyclops Marine recommends using strops built to this diameter to achieve the stated $\pm 1\%$ of maximum working load (MWL) accuracy.

Contact us for pricing and availability of strops.

Model	Nano	2t	5t	10t	20t
Finished Diameter (mm)	4.0	9.0	10.7	12.4	15.0

Safety

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

smartlink is not intended to support personnel working aloft. Please follow all standard working aloft safety procedures.

Overload

The MWL of a smartlink must not be exceeded, as this may cause damage to the internal instrumentation and will invalidate the warranty.

SHOCK LOADING (i.e. strop failure) OR OVERLOADING TO 150% OF MWL WILL 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 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 to the body of the sensor can affect the calibration. This would require the device to be returned to Cyclops for inspection and re-calibration.

smartpower button

smartlink² 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 mode	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 & powered off modes can only be activated from powered on mode.

Wireless charging (())

To charge smartlink² with the wireless charger, plug the charger into a USB port or power plug (not supplied), a quick blue flash indicates it has been powered on. Place the smartlink² on the charger with the wireless charging logo facing the charger.



Figure 2: Charging procedure

Ensure that the smartlink² is powered on when charging, or else charging indication will not be visible. 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.

When the LED flashes red & green together, it indicates the sensor is in direct connection mode with the app or with a 3rd party device.

Technical Data

Model	MWL (tonnes)	Dimensions (mm)	Mass (g)	Accuracy range* (kg)
nano	0.6	64x55x17	80	±6
2t	2	79x55x19	160	±20
5t	5	83x66x22	210	±50
10t	10	93x74x25	360	±100
20t	20	107x88x39	770	±200

*Accuracy range achieved using Cyclops Marine supplied straps.

Frequency 1Hz (from factory, adjustable)

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

Body Material Al6082-T6 (600kg), Ti6Al4V (2, 5, 10, 20 tonne)

Housing Material Acetal, IP67 rated

Battery Lithium Polymer, 0.925Wh

*smartlink²s are not warranted to be accurate for the purposes of buying/selling products by weight.

Displaying Load Data

For both seeing live loads and logging load data from a sailing session, either a mobile phone or a Cyclops Marine Gateway should be used. The smartlink² can be added to the application using the data key or QR code that was supplied with the unit. Scan the applicable QR code below for instructions.

smartfittings manager app tutorial:



smartfittings gateway installation guide:

