

# Smarttoggle™ Guide

## Product Description

smarttoggles are wireless load sensors, manufactured in aluminium to be the lightest, strongest and smallest load sensors on the market. Designed in collaboration with leading furling brands, smarttoggle will help you measure and repeat your fast settings whilst having the safest furling experience.

## How it works...

Simply add inline between your flying sail furler and sail cable. Easily connect the sensor to your phone via the latest smartphone app or to marine electronics via optional smartfittings gateway for immediate load data.

## Recommended Installation



Install smarttoggle between the furler and cable



Intuitive pin lock mechanism. Rock the catch to the left to insert the pin. Release and ensure the lock is engaged.

## Safety

Please read all instructions before using smarttoggle 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.

smarttoggle is not intended to support personnel working aloft or in structural rig locations such as forestays. Please follow all standard working aloft safety procedures.

## Overload

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

**SHOCK LOADING OR OVERLOADING TO 150% OF MWL WILL RESULT IN PERMANENT DAMAGE TO THE SENSOR**

## Calibration

If smarttoggle 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

smarttoggle has 3 modes: powered on, extended use & off.

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

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

## Wireless charging

To charge smarttoggle 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 smarttoggle on the charger with the wireless charging logo facing the charger.



The sensor is charging when the LED constantly flashes red.

## LED light indication

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

## Technical Data

Model	MWL (t)	Dimensions (mm)	Pin Dia (mm)	Mass (g)	Accuracy range* (kg)
FE-02	4.5	140/50/35	12	299	±45
FE-03	7	tbc	16	tbc	±70

Frequency 1Hz

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

Body Material Al6082-T6

Housing Material Acetal, IP67 rated

Battery Lithium Polymer, 0.925Wh

smarttoggles 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. Scan the applicable QR code below for instructions.

smartfittings manager app tutorial:



smartfittings gateway installation guide:

