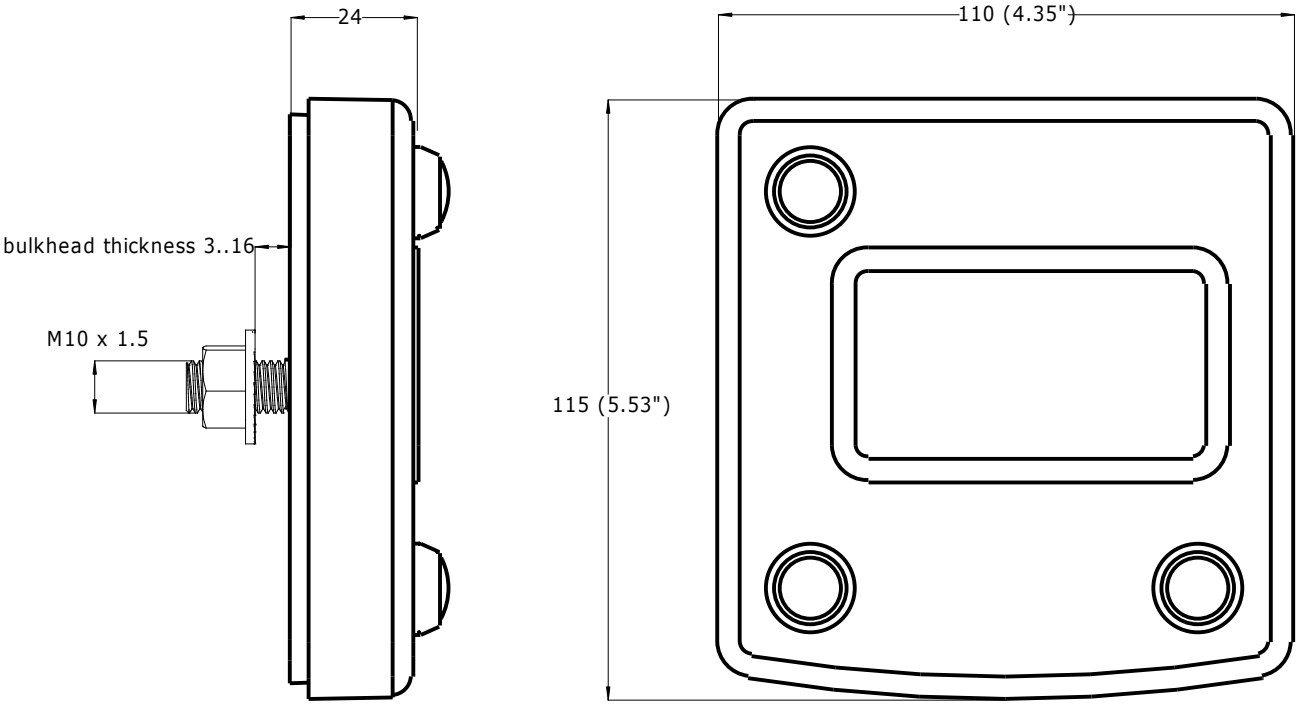
Chain Counter

The LSC Chain Counter MK2 (CC) is an easy to install, accurate digital display of the anchor rode length released, to ensure the desired length to depth ratio is attained for secure anchoring.
The CC provides an accurate method of monitoring rode deployment with either electric or hydraulic powered windlasses.

The CC relies on the consistent rotation of the windlass drive to calculate the length of chain deployed. Calibration is performed in both directions to minimize any load variations.

1. Dimensional outline and mechanical specifications

Parameter	Value	Units
Weight	200	grams
Housing material	Polypropylene	-
Screen material	polyethylene terephthalate	-
Operating range	-20 .. +60	Celsius degrees
Protection	IP 67	-
Maximum allowable shock	3	G
Maximum allowable relative humidity	99	%



All units are millimeters (inches)

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5552 King St., Lincoln, Ontario Canada L3J 1N6
Tel - (905) 325-6230
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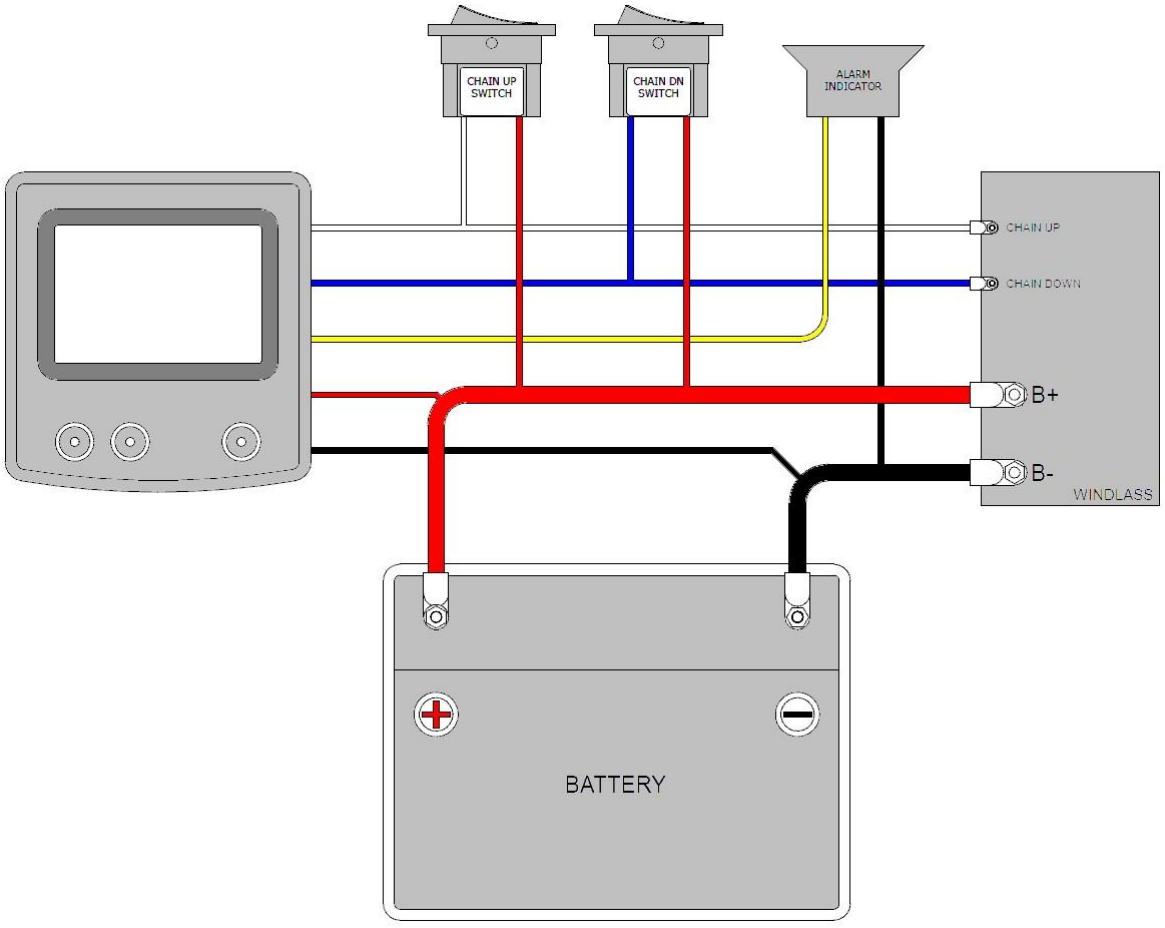
2. Electrical specifications

Parameter	Value	Units
Maximum operating supply voltage	40	Volts
Current consumption	Up to 0.150	Amps
Maximum operating voltage at signal leads	40	Volts
Maximum operating current at signal leads	1.5	Amps
Signal leads ratings	Gauge: 18 AWG Material: tinned copper Insulator Material: PVC Insulation: up to 300 Volts	-

Refer to the connection diagram below for additional information.

Color	Function	Connects to
Black	Negative Power Supply	Battery Negative
Red	Positive Power Supply	Battery Positive
White	"Chain up". Depending on the settings it can be a signal lead or a control lead.	To "Chain Up" windlass control
Blue	"Chain down". Depending on the settings it can be a signal lead or a control lead.	To "Chain Down" windlass control
Yellow	Signal lead "alarm". Signal lead.	To acoustic alarm indicator



3. Bluetooth interface

On power up, the device enters the Bluetooth discovery and pairing mode. When trying to pair, device scan must show "Chain Counter". Use "1234" as the pairing pin-code if required.

REGULATORY APPROVAL

This section outlines the regulatory information for the COM Module PLUS for the following countries:

United States

Contains FCC ID: T9J-RN42.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canada

Contains transmitter module IC: 6514A-RN42

This device complies with Industry Canada license exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

European Union

Certification	Standards	Article	Laboratory	Report Number	Date
Safety	EN 609501:2006 + A11:2009 + A1:2010 + A12:2011	[3.1(a)]	Worldwide Testing Services (Taiwan) Co., Ltd	W6M21402-13966-L	2014-03-24
Health	EN 62479:2010			W6M21402-13966-62479	2014-03-13
EMC	EN 301 489-1 V1.9.2 (2011-09) EN 301 489-17 V2.2.1 (2012-09)	[3.1(b)]		W6M21402-13966-E-16	2014-03-13

Notice

Radio	EN 300 328 V1.8.1 (2012-06)	(3.2)		W6M21402-13966-T-45	2014-03-13
Notified Body Opinion	CE0681	-	Eurofins Product Service GmbH	U9M-1404-3736-C-V01	2014-04-15

4. GPS receiver

Table below shows the parameters of the integrated GPS receiver:

Parameter	Value	Units
Horizontal Position Accuracy	Less than 2.5 (at GPS signal level -130dBm)	meters
Time to first fix	35 seconds (at GPS signal level -130dBm)	seconds
Update rate	10	seconds
Sensitivity	-160	dBm

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