

SmartSwitch DC4

4 Channel DC Switch

Quick Start Guide



ENERGY SOLUTIONS



victron energy
BLUE POWER

Victron Ready

Part Number:

SMARTSWITCH-DC4

The module is a configurable 4 channel DC load controller. With internally powered and isolated CAN interface.

Before installing, please make sure the firmware within the Victron GX device is v3.60 or higher.

This module is intended for DC distribution and load control in marine craft and road vehicles. It should not be used on road vehicles while in motion.

NOT TO BE USED IN SAFETY CRITICAL APPLICATIONS.

All four channels having the same following functions:

Configurable to one of the following modes:

- **Latching** - (on/off) output. On state output voltage will track module Supply voltage.
- **Momentary** - Active only while button pressed.
- **Dimming** - Lamp dimming by 120Hz pulse width modulation.

Current monitoring of each circuit

Output protection with:

- Over current by configurable fuse rating of 2A, 3A, 4A and 5A. With each rating providing simulated characteristics of the equivalent ATO fuse. (i.e. Trip in less 100mS if current > 35A and 100 S if current is 2 times fuse rating)
- Over temperature - Module and local to channel driver

CAN interface implementing:

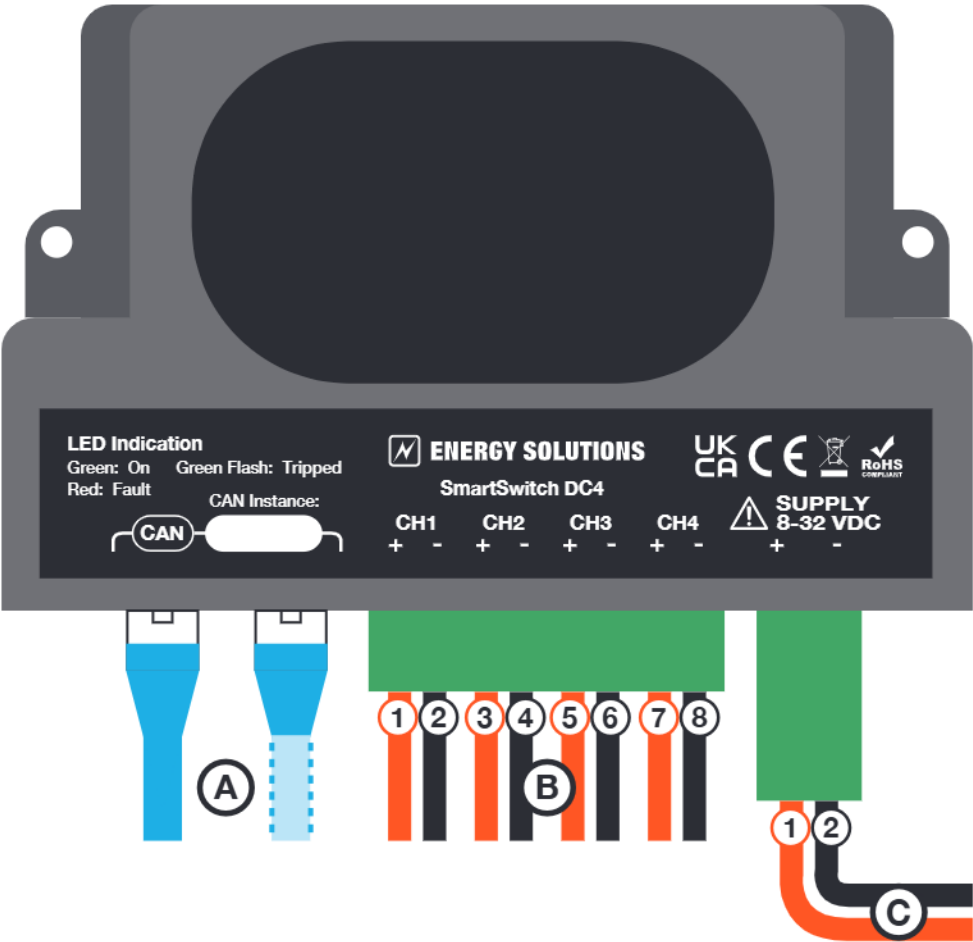
- Designed to work with VE.Can

Flammability: - PCB & enclosure UL94V-0

Weight: - 170g with connectors

Installation

The SmartSwitch can be mounted using M4 bolts or No6 self-tapping screws using the two 4.3mm diameter fixing holes.



Connections

Ⓐ CAN

2 x RJ45 connectors allowing CAN loop through

or

1 x RJ45 connector and 1 x RJ45 terminator

VE.Can compliant pin out

Ⓑ Output

4 x channel pairs (See diagram for polarity)

5A per channel. Module total not exceeding 15A.

Connector wire data

Solid min 0.2mm^2 max 2.5mm^2

Flexible min 0.2mm^2 max 2.5mm^2

Flexible with ferrule min 0.25mm^2 max 2.5mm^2

Ⓒ DC Power

Module input supply (See diagram for polarity)

Connector wire data

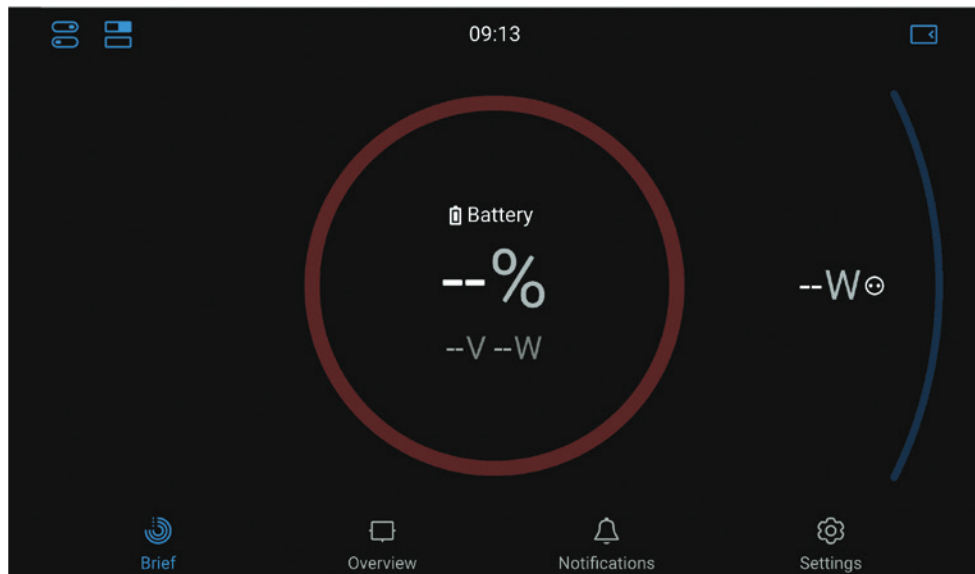
Solid min 0.2mm^2 max 6mm^2

Flexible min 0.2mm^2 max 4mm^2

Flexible with ferrule min 0.25mm^2 max 4mm^2

Setup

From the GX overview or brief pages navigate to the **settings page** using the icon on the lower menu bar  (this auto hides – so you may need to touch the screen to reveal the icons)



Settings - Setup Menu

The first page you are taken to has a number of options. The top option is 'Devices' – select **Devices**

The next page is a list of devices that are connected to the system. A correctly connected and powered SmartSwitch will appear in this list with a name **SmartSwitch DC4X** (with X being the instance number allocated by the system). Select the device by pressing on its name.

The first page for the SmartSwitch shows current data (state, supply voltage and channel states) as well as having a setup option. Press **setup** to change settings.

The first setup page is for the **module**. Here you can change the module name and/or select a channel to make changes to individual channels.

On the individual **channel** page you can name the channel, allocate it to a group, select it's operation to be latching, momentary or dimming and finally select the fuse rating (2 – 5 amps)

More info on naming and grouping conventions – and the use of ‘cards’

The SmartSwitch user interface is accessed by a new icon  in the top left hand corner of the GX home screen (this is immediately to the right of the existing ‘controls’ button ). This ‘page’ will be where all switch functions are accessed – not just SmartSwitch. This page has multiple Cards that each contain channels. If there are more than 4 channels the card grows to accommodate.

To make operation more convenient Victron, and Energy Solutions, have created two different ways of grouping ‘channels’. They can be grouped either by ‘module’ or by ‘group’.

A module is a single SmartSwitch – so all 4 channels appear together. The module can be named (for instance ‘Bobs Camper’) and the channels can be named (for instance ‘Awning Light’).

But it might be that you want to group channels by type, rather than by module. Group name allows you to do this. Each channel can also be allocated to a group name. If a channel has a group name it is put onto a Card titled with that group name. This means that you can chose to group all lighting channels together by giving them all the same group name. Any channels that don’t get given a group name will remain on a card titled with the module name.

The group name is a free text field – so you need to be careful to be consistent with spelling and capitalisation.

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