MASTERVOLT

CZONE
Switch Control Interface (SCI)

Product description:

The Switch Control Interface (SCI) is a module which converts signals from traditional mechanical switches and converts them into a CAN signal to control loads via channels on output interface modules

SCI features:

- 8 switch channels per module (sixteen switch points)
- Single switch position can control multiple OI channels
- Multiple SCI switches can control single OI channel
- Output for backlighting of switch labels (dimmable)
- Outputs systems on and function/fault codes to systems on LED of switches (dimmable)
- Programmable switch types
  - Normally open
  - Normally closed
  - Momentary open or closed
  - Dimmer
  - Timer
  - Interlocking

EMC ratings:
- IEC EN 60945
- IEC EN 61000
- FCC Class B
- ISO 7637 - 1 (12V Passenger cars and light commercial vehicles with nominal 12V supply voltage - Electrical transient conduction along supply lines only)
- ISO 7637 - 2 (24V Commercial vehicles with nominal 24 V supply voltage - Electrical transient conduction along supply lines only)
- IEC Standards for indirect lighting strikes

Dimensions:

H 100mm (3"29/32) x W156mm (6"3/32) x D 42mm (1"5/8)

- IPX5 water ingress rated

Weight: 281g

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LED Flash Codes

Network Status indicator

SWITCH CONTROL INTERFACE

NETWORK
STATUS

Green - Power
Red - Traffic
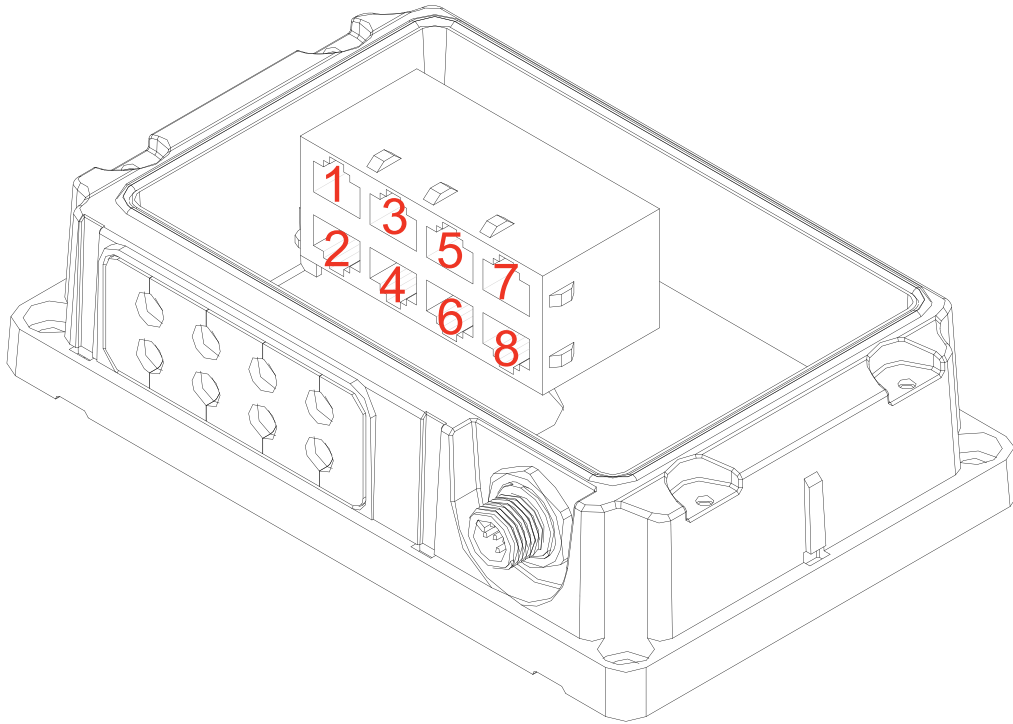
Network Status Indicator

- **Extinguished** = Network power disconnected
- **Green** = Network power connected
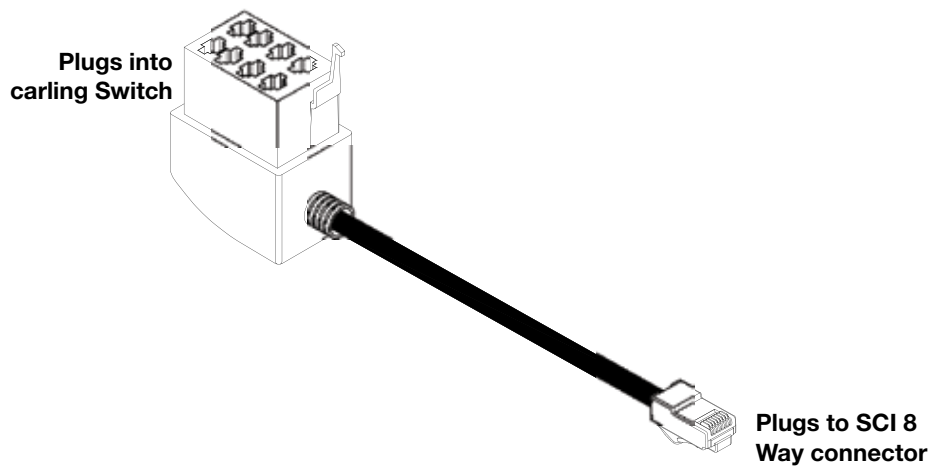- **Red** = Network traffic

Channel Status Indicators

In the Case of the SCI module the LED channel status indicator flashes are displayed on the Carling switches that are connected to the SCI (Systems in operation window)

- Red solid on *SCI ⟹ Output on
- Red slow flash *SCI ⟹ Output in timer mode
- Gn solid on SI/MI ⟹ Valid input signal
- 1 x RED SCI/SI/MI ⟹ Channel not configured
- 2 x RED SCI/SI/MI ⟹ Configuration conflict
- 3 x RED SCI/SI/MI ⟹ Dip switch conflict
- 4 x RED SCI/SI/MI ⟹ Memory comms failure
- 5 x RED SCI/SI/MI ⟹ No modules detected
- 6 x RED SCI/SI ⟹ Fault on output
- 7 x RED SCI/SI ⟹ Output not detected
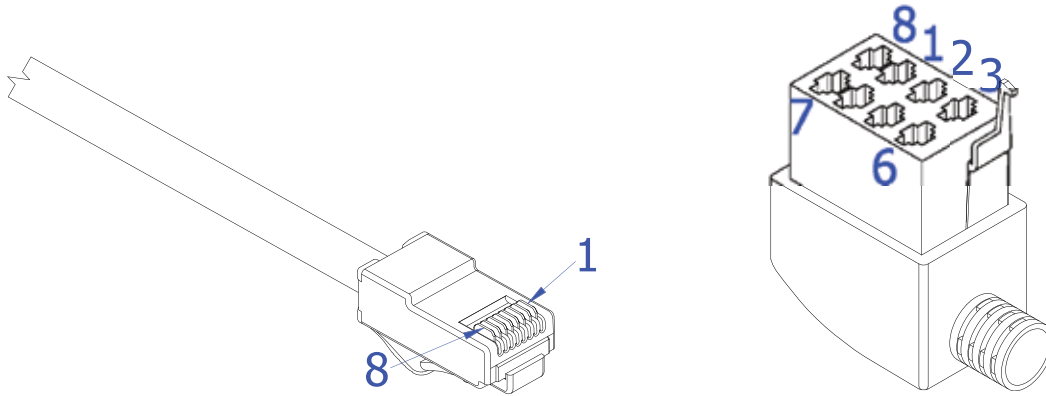- 8 x RED SI/MI ⟹ Invalid input signal

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SCI – 8 Way connector housing

1 3 5 7
2 4 6 8

1 3 5 7
2 4 6 8

Front View

Plugs into carling Switch

Plugs to SCI 8 Way connector

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Connections

Internal SCI Conductor connections

SCI Cable Connections

RJ45	Conductor Colour	Carling terminal Housing	Conductor Designation (in relation to SCI)
1	Green/White	8	Backlighting + 2V
2	Green	1	Switch O/P Position 2
3		NC	
4	Blue	7	NEG
5		NC	
6	Orange	6	Systems on + 2V
7	Brown/White	3	Switch O/P Position 1
8	Brown	2	Switch I/P centre position

Connections/LED flash code label

This label is located on the inside of the front lid of the unit, it shows the LED codes and electrical connections to the unit

LED Codes/Module: Fault Description:

Channel Status LED indicator

Red solid on *SCI ⟹ Output on
Red slow flash *SCI ⟶ Output in timer mode
Gn solid on SI/MI ⟹ Valid input signal
1 x RED SCI/SI/MI ⟹ Channel not configured
2 x RED SCI/SI/MI ⟹ Configuration conflict
3 x RED SCI/SI/MI ⟹ Dip switch conflict
4 x RED SCI/SI/MI ⟹ Memory comms failure
5 x RED SCI/SI/MI ⟹ No modules detected
6 x RED SCI/SI ⟹ Fault on output
7 x RED SCI/SI ⟹ Output not detected
8 x RED SI/MI ⟹ Invalid input signal

*SCI LEDS are located on SCI control switches

SI 8 Way
DC -
NC
I/P 6
I/P 5
I/P 4
I/P 3
I/P 2
I/P 1
8 7 6 5 4 3 2 1

SCI 8 way
1 3 5 7
2 4 6 8

MI 8 Way
DC -
DC V 3 +
DC V 2 +
DC V 1 +
Shunt 2 (L)
Shunt 2 (B)
Shunt 1 (L)
Shunt 1 (B)
8 7 6 5 4 3 2 1

MI 6 Way
TXFM common
AC V 3 (TXFM)
AC V 2 (TXFM)
AC I 2 (TXFM)
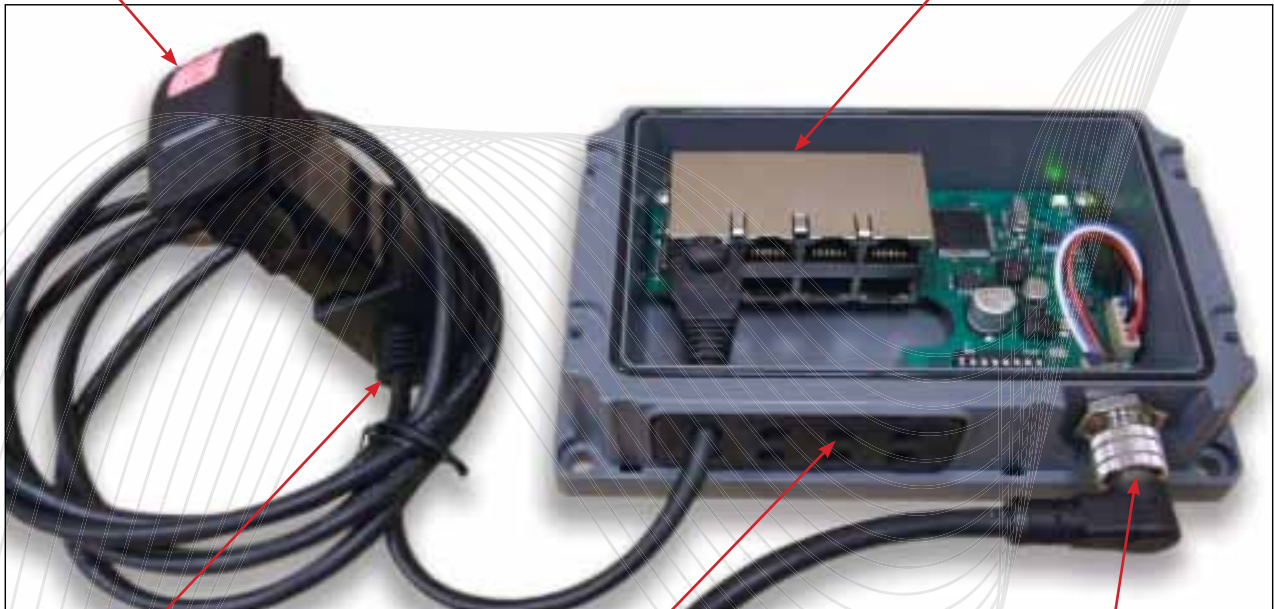AC V 1 (TXFM)
AC I 1 (TXFM)
6 5 4 3 2 1

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Pictorial Overview

Carling

8 way RJ45 connector bank

Proprietary cable assembly

Waterproof Cable grommet

NMEA 2000 connector

155.5000mm [6 1/16]

100mm [3 29/32]

86mm [3 11/32]

7 8

142.0000mm [5 17/32]

Ø5.0000mm [Ø3/16]

156mm [6 3/32]

100mm [3 29/32]

NETWORK
STATUS

Green - Power
Red - Traffic

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42mm [1 5/8]