

Meter Interface (MI)

Product description:

The Meter Interface is designed to accept multiple inputs from AC current and voltage transformers as well as DC voltage inputs and current inputs from shunts. The MI processes the information from these inputs and broadcasts it onto the CZone bus.

MI Features

AC:

- 3 x AC voltage inputs (multi voltage)
- 2 x AC current inputs
- Calculates true RMS power
- IPX5 water ingress protection

DC:

- 3 x DC voltage inputs (multi voltage)
- 2 x DC current inputs
- Calculates battery capacity as Ampere hours and percentage charge remaining
- Resolution for current metering down to 0.1A

Dimensions:

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

Weight: 281g

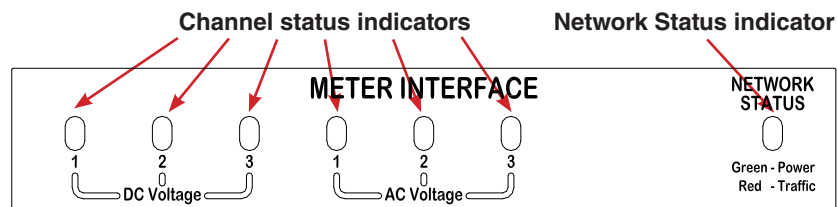
Note: High and low alarm levels can be set for all inputs

EMC ratings:

- IEC EN 60945
- IEC EN 61000
- FCC Class B
- ISO 7637 - 1 (12V Passenger cars and light commercial vehicles with nominal 12 V 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



LED Flash Codes



Network Status Indicator

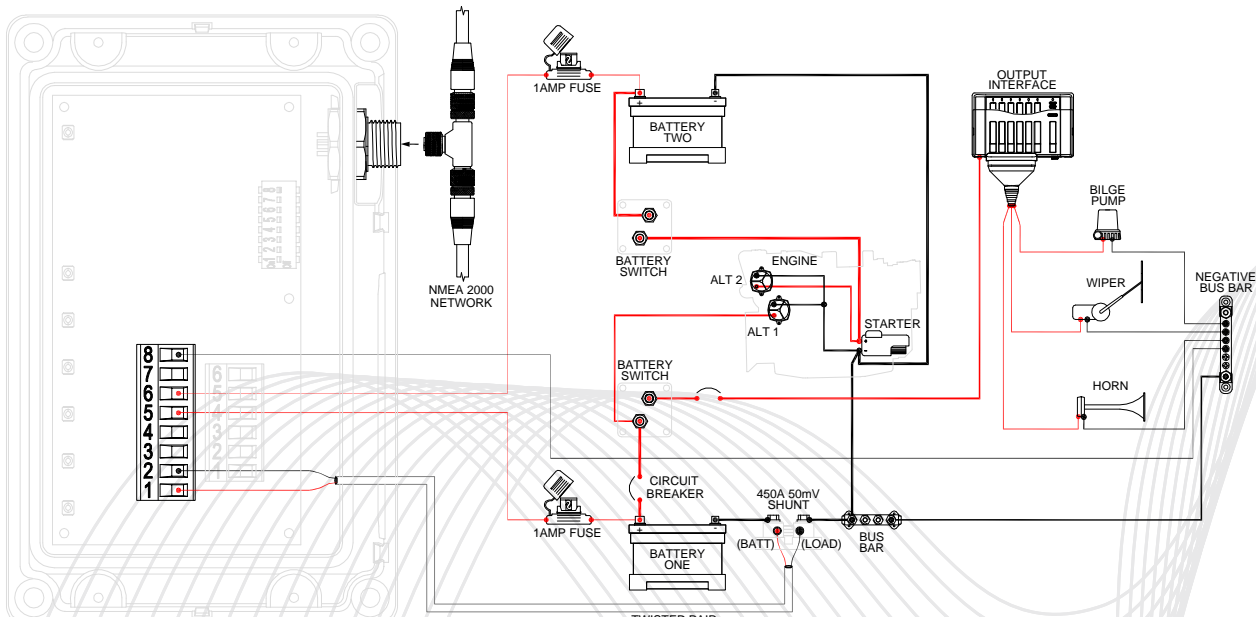
- **Extinguished** = Network power disconnected
- **Green** = Network power connected
- **Red** = Network traffic

Channel Status Indicators

- 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

Connections

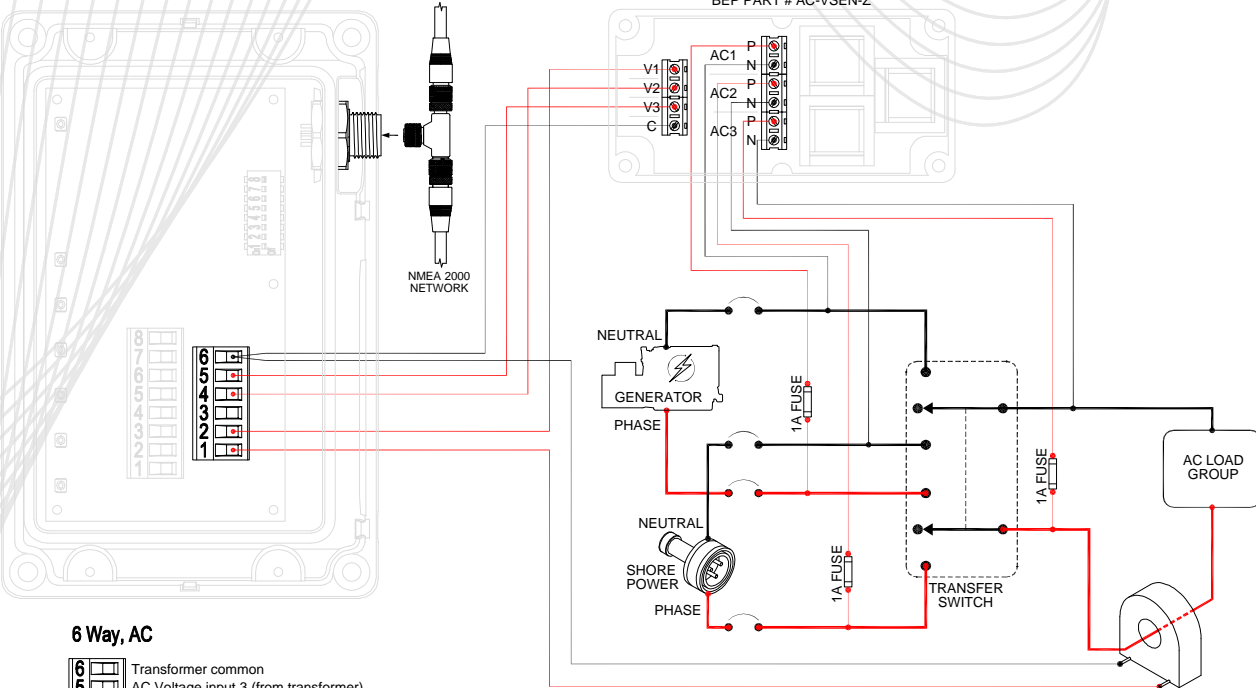
Electrical Connections DC



8 Way, DC

8	DC Negative
7	DC voltage positive input 3
6	DC voltage positive input 2
5	DC voltage positive input 1
4	DC current 2 Shunt input 2 (LOAD)
3	DC current 2 Shunt input 1 (BATT)
2	DC current 1 Shunt input 2 (LOAD)
1	DC current 1 Shunt input 1 (BATT)

Electrical Connections AC



6 Way, AC

6	Transformer common
5	AC Voltage input 3 (from transformer)
4	AC Voltage input 2 (from transformer)
3	AC Current input 2 (from transformer)
2	AC Voltage input 1 (from transformer)
1	AC Current input 1 (from transformer)



Labelling

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

Channel Status LED indicator

LED Codes/Module:

Fault Description:

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

Module Identification and Dipswitch label

OI

SI

MI

XX

MOI

SCI

DI

DIP 1

2

3

4

5

6

7

8

These labels allow easy identification of each module whilst recording the dipswitch setting. These labels are to be fitted to the cover and to the module (this prevents covers being swapped). To record the module type and dipswitch settings use a permanent marker and strike through the applicable boxes (a strike through on a dipswitch box indicates that switch is on).

Installation Guidelines

Ensure the modules are installed vertically with the cables exiting downwards

All seals and cable glands must be fitted including blanking plugs inserted in any unused positions.

Ensure all labels are fitted and correct

Dimensions

