cangoee™ power

CAN-SEN1000 Information Guide

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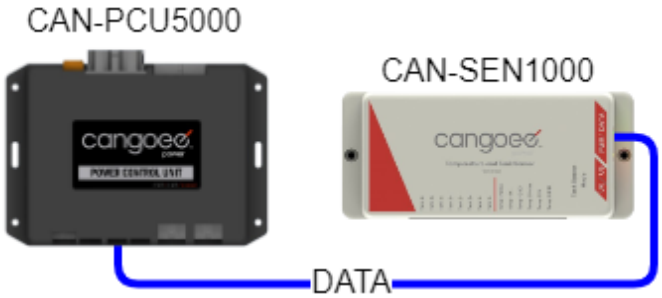
1. Safety Precautions

WARNING

- Avoid mechanical shock.
- Avoid direct sunlight exposure.
- Do not expose the module (with Printed Circuit Board) to water.
- Do not expose the module or any components to fire.
- Do not pierce the module.
- Do not disassemble.
- Do not drill into the module enclosure.
- Do not operate outside the range of 0˚C - 45˚C.
- Always follow safe working practices.
- All minimum cable gauges and maximum lengths must be followed.

2. Key Components for Product Operation

In addition to compatible tank and temperature sensors, the CAN-SEN1000 Tank and Temperature Sensor Module operates in conjunction with the CAN-PCU5000 Power Control Unit.



3. Specifications

Maximum Tank Sensors	4
Maximum Temperature Sensors	2
Connections	1 x RJ45 Connection 1 x Green 5.08mm Pitch 8 Way Pluggable Terminal Block 1 x Green 5.08mm Pitch 6 Way Pluggable Terminal Block
Switch	1 x 1 Way SPST DIP Switch
Dimensions (L x W x H)	150 mm x 65.50 mm x 49.80 mm

Table 1 CAN-SEN1000 Specifications

4. Quick Start Guide – CAN-SEN1000

The CAN-SEN1000 Tank and Temperature Sensor Module is a specially designed comprehensive monitoring solution for off-grid adventures. With the capability to support up to four tank sensors and two temperature sensors simultaneously, the module offers great versatility and flexibility for installation into vehicles and caravans. With connections to the CAN-PCU5000 Power Control Unit and the CAN-TCH2000 Touchscreen Module (both sold separately), the CAN-SEN1000 allows monitoring of tank levels and temperatures in real time on a visual interface with precision and reliability.

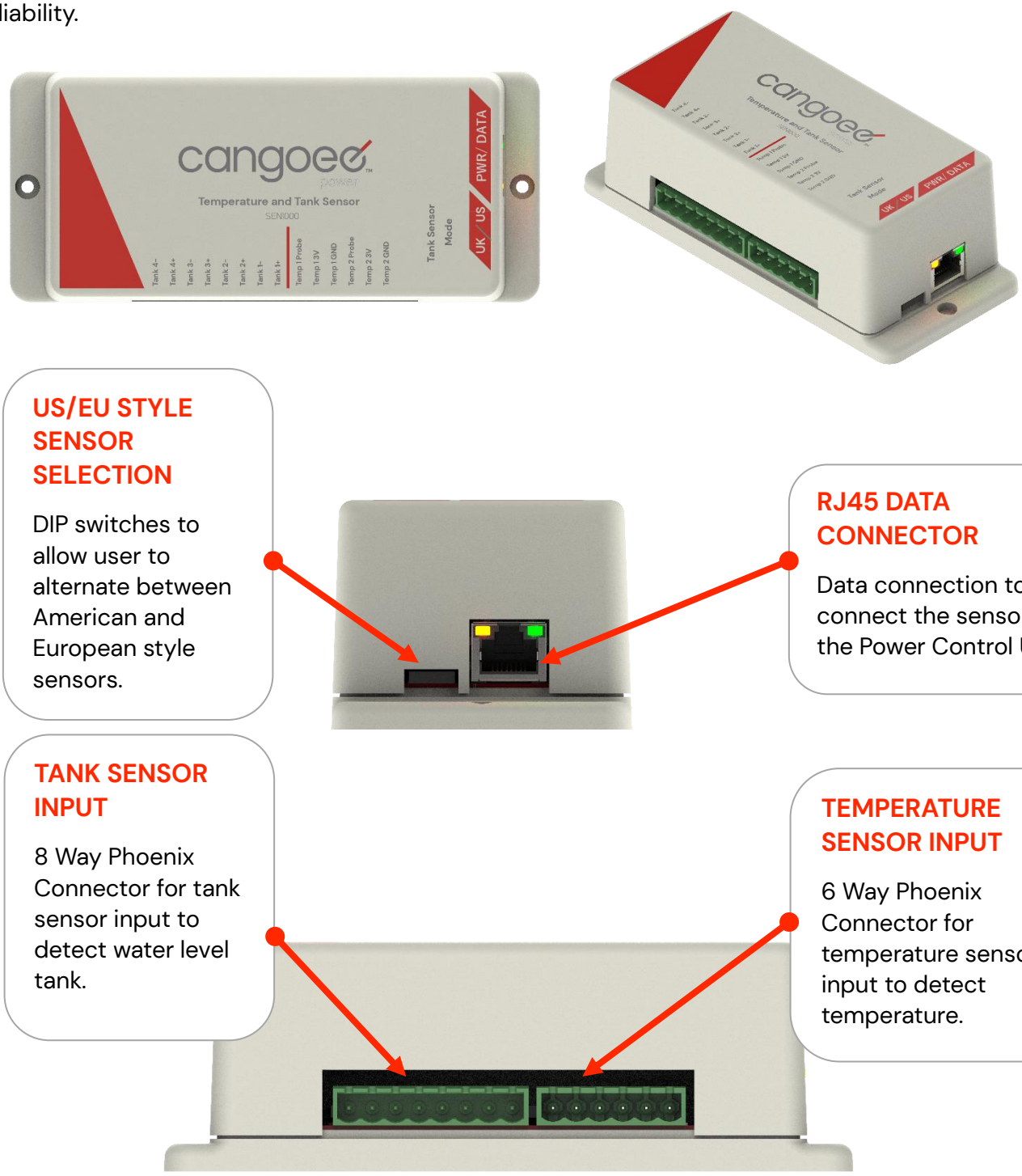


Figure 1 CAN-SEN1000 Connection Description

5. CAN-SEN1000 Dimensions

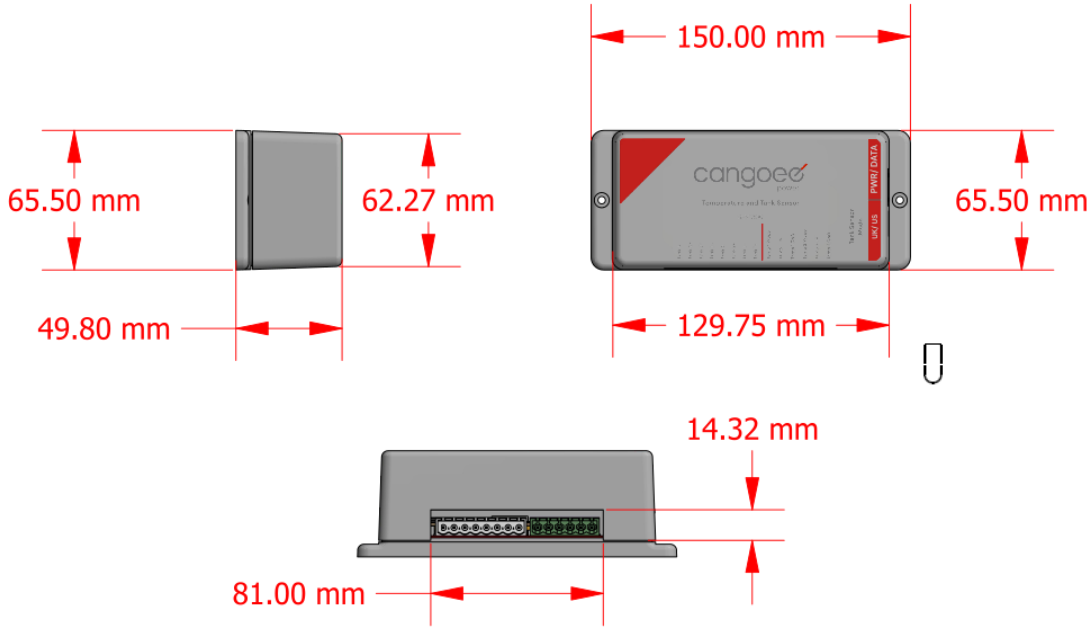


Figure 2 CAN-SEN1000 Tank and Temperature Sensor Module Dimensions

6. CAN-SEN1000 Wiring Diagram

The CAN-SEN1000 connects to the PCU via a CAT5/6 Data Cable.

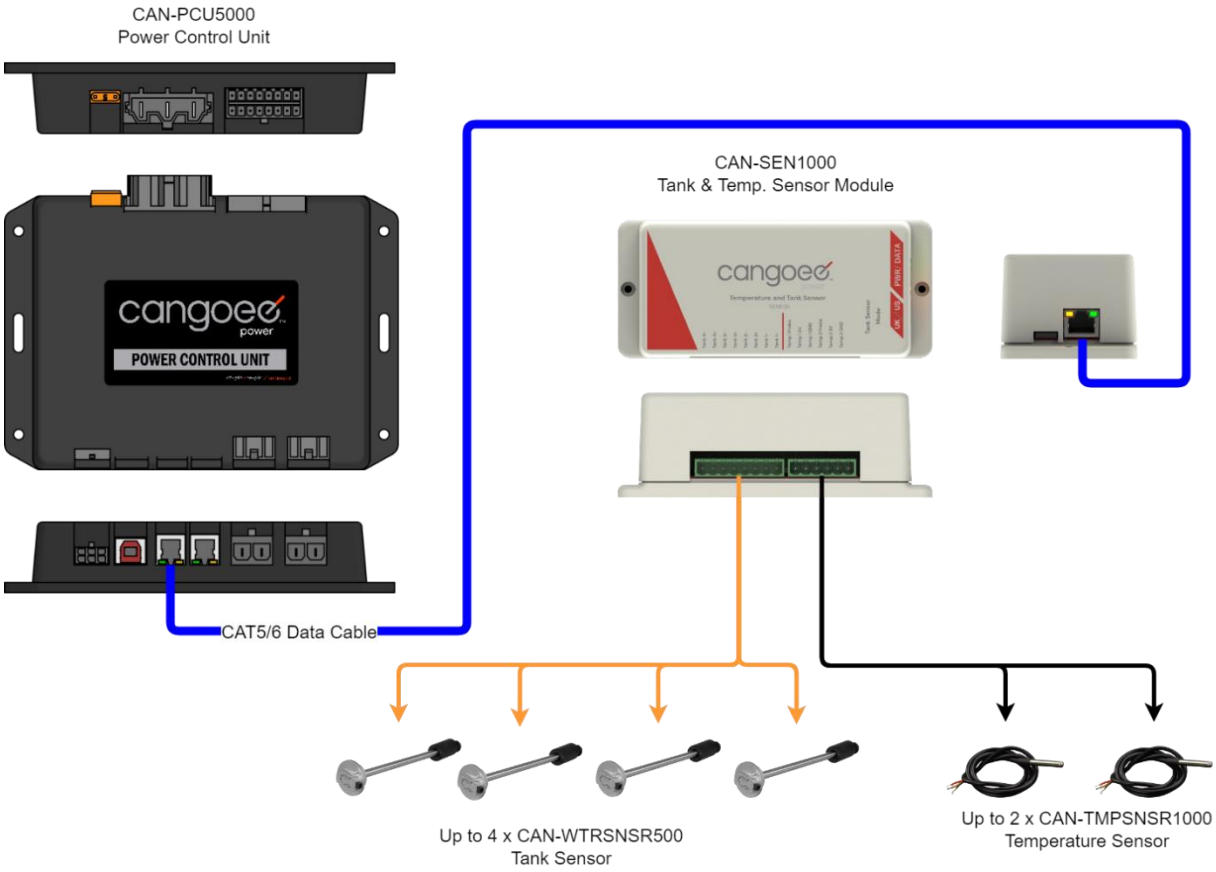


Figure 3 CAN-SEN1000 Wiring Diagram

7. CAN-TMPSNSR1000

The CAN-TMPSNSR1000 is an IP68 rated temperature sensor suitable for measuring in various conditions. The sensor probe can handle temperatures up to 125°C, but it is recommended to keep the cable under 100°C due to its PVC jacket.

As a digital sensor, there is no signal degradation even over long distances. It provides temperature readings in 9 to 12 bits resolution and is accurate to ±0.5°C within the range of -10°C to +85°C.

The sensor connects to a central microprocessor within the CAN-SEN1000 module via phoenix connects which also allows for multiple temperature sensors to be connected to. With the addition of the CAN-TCH2000, users can monitor the temperature in real time.

7.1 CAN-TMPSNSR1000 Specifications

Ingress Rating	IP68
Accuracy	±0.5°C from -10°C to +85°C
Usable Temperature Range	-55°C to 125°C
Data Resolution	9 to 12 Bits
Probe Material	Stainless Steel
Probe Dimension	6mm Diameter x 35mm Length
Cable Diameter	4mm
Cable Length	0.95m
Cable Material	PVC

8. CAN-WTRSNSR500

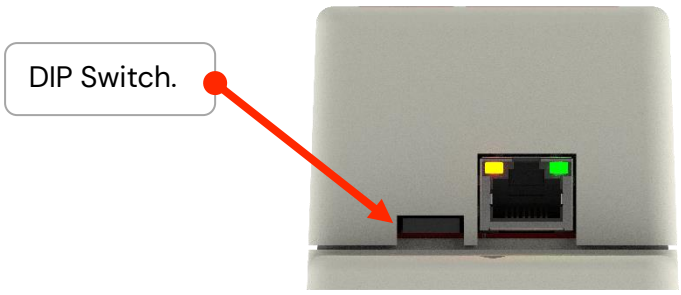
The CAN-WTRSNSR500 offers accuracy and reliability in monitoring water levels. The sensor provides real-time insights to ensure efficient usage within an easy-to-install package.

The sensor connects to a central microprocessor within the CAN-SEN1000 module via an 8 way phoenix connector which also allows for multiple tank sensors to be connected. With the addition of the CAN-TCH2000, users can monitor tank levels in real time.

8.1 CAN-WTRSNSR500 Specification

Ingress Rating	IP65
Resolution Range	21mm
Application	Fuel/Diesel/Water/AdBlue
Material	Aluminium Header and Stainless Steel (#316) Sensor Tube
Assembly	1-1/4" BSP Thread
Accessories	Rubber O-Ring
Resistance Range	2.3 Ω to 198 Ω
Module Length	520mm

8.2 US/UK Style Sensor



The CAN-SEN1000 includes a DIP switch to allow for the selection between US and UK style sensors.

European (UK) style sensors work on a variable resistance where in the case of the CAN-WTRSNSR500, the higher the resistance (with a maximum of 198 Ω) means the higher the water level within the tank. On the other hand, the lower the resistance (with a minimum of 2.3 Ω), the lower the water level within the tank.

American (US) style sensors work opposite to the UK style sensors where the higher the resistance means the lower the water level within the tank. While the lower the resistance, the higher the water level within the tank.

9. CAN-SEN1000 Example Overall Use Case Schematics

Please Note: This is for illustration purposes only and is **NOT** intended to be used as a guide for installation.

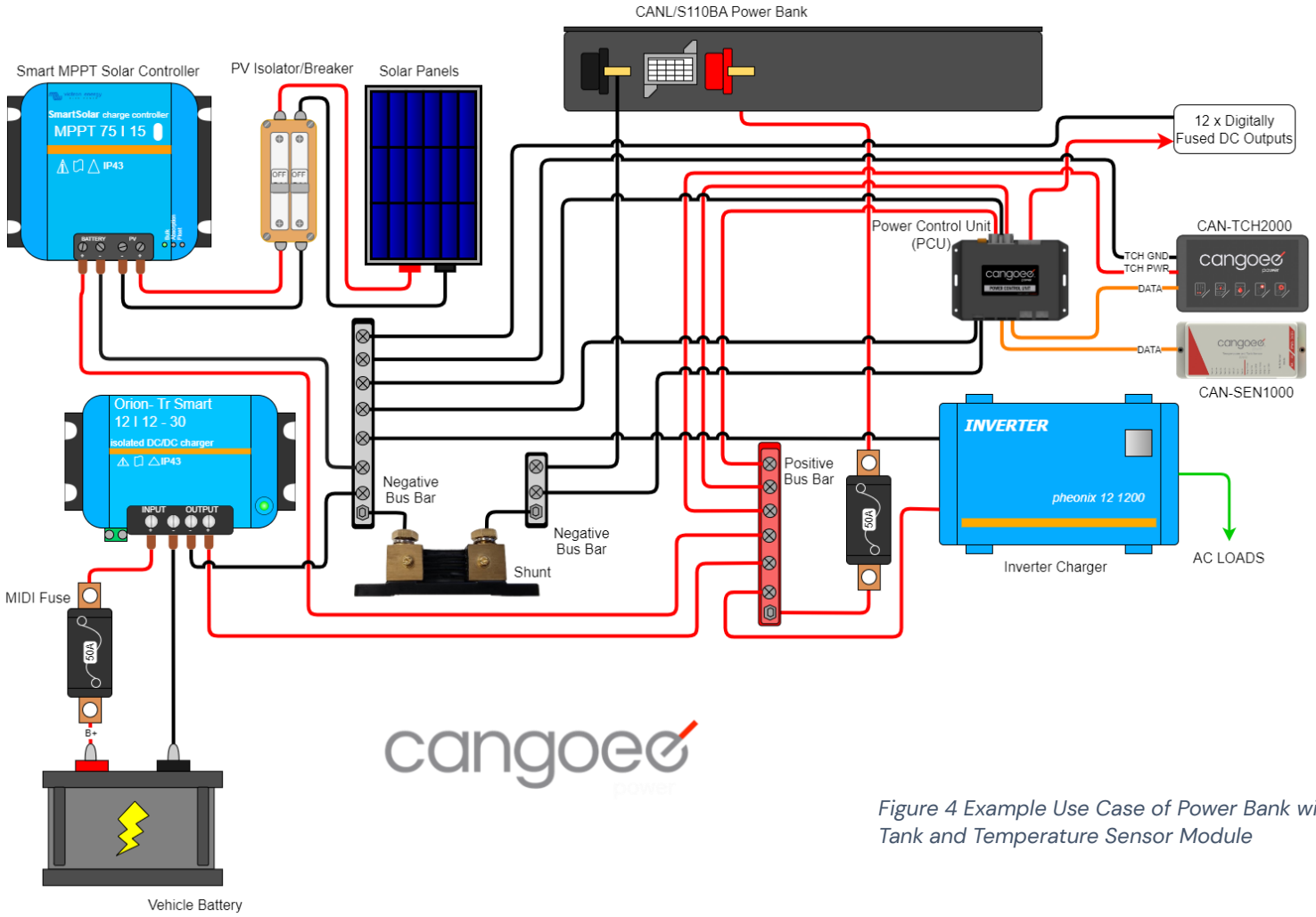


Figure 4 Example Use Case of Power Bank with CAN-SEN1000 Tank and Temperature Sensor Module