



# **SIMARINE SN01**

## **SiCOM NMEA 2000 gateway module**

### **USERS MANUAL**

Revision 1.0

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S I M A R I N E

## 1 Introduction

Simarine SN01 SiCOM NMEA 2000 gateway module allows your PICO to transmit and receive information from certain devices connected to an existing NMEA 2000 network. It allows control of switch banks, transmitting battery status, tank levels and some environmental information. Using the gateway, PICO can also display a range of engine and transmission parameters if they are connected to the NMEA network.

## 2 Safety

Installation of Simarine electronics should be made by electrical specialists with proper safety equipment. When working with batteries you should wear protective clothing and eye protection.

**CAUTION:** Batteries contain acid, a corrosive, colorless liquid that will burn your eyes, skin and clothing. Should the acid come in contact with eyes, skin or clothing, wash it immediately with soap under fresh water for at least 15 minutes, and seek medical support immediately.

**CAUTION:** Do NOT connect anything to a damaged battery. It could heat up, catch fire or explode.

**CAUTION:** Lead-acid Batteries can generate explosive gases during operation. Never smoke, allow flames or sparks near the battery. Make sure to keep sufficient ventilation around the battery.

**CAUTION:** When working with a battery remove all personal metal items like watches, rings, necklaces and bracelets. Metal items in contact with the battery terminals might cause a short circuit with a very high electric current, which may heat up and melt nearby objects and cause severe burns.

## 3 Overview

*Picture 1 SN01*

x – 1x NMEA 2000 port

x – 2x SiCOM port



## 4 List of supported NMEA 2000 PGN

Below is a list of supported NMEA 2000 PGN's. PICO allows transmitting or receiving of certain PGN's according to the table below.

PGN	PGN Name	receiving	transmitting
59904	ISO Request	Yes	No
60928	ISO Address Claim	Yes	Yes
126996	Product Information	No	Yes
127257	Attitude	No	Yes
127502	Switch Bank Control	No	Yes
127505	Fluid Level	No	Yes
127506	DC Detailed Status	No	Yes
127508	Battery Status	No	Yes
130310	Environmental Parameters	No	Yes
130314	Actual Pressure	No	Yes

## 5 Installation

### 5.1 Mounting

**CAUTION:** install the gateway module in a clean dry place, protected from accidental spilling of liquids.

- You can fix the module with the supplied screws using four holes on both sides of the module.
- Connect all cables (see section 5.3 Connecting).

### 5.2 Cables

#### 5.2.1 SiCOM data cable

For the SiCOM connection use the supplied cable. If not possible, use the following table to determinate the right cable type.

Cable length	Cable type
< 5m	No limitations
>= 5m	2x2x0.25 mm <sup>2</sup> Twisted pair (recommended)

#### 5.2.2 NMEA 2000 backbone cable

Cable length	Cable type
< 5m	xyz
>= 5m	xyz

### 5.3 Connecting

For proper function of Simarine SN01 SiCOM NMEA 2000 gateway module it is necessary to:

1. Connect SN01 to Simarine PICO via the SiCOM port.
2. Connect to NMEA 2000 backbone via the marked NMEA 2000 port connector.



## 6 Technical specifications

<b>Operating</b>	
Voltage range	6 - 35 V
Temperature range	-20 – 70 °C (-4 – 158 °F)
<b>Power consumption at 12V</b>	
Operating	x mA
<b>Dimensions</b>	<b>183x91x34 mm</b>
<b>Connectivity</b>	
<b>Up to</b>	
NMEA 2000 backbone	1
SICOM port	2

Table 1 Technical specification