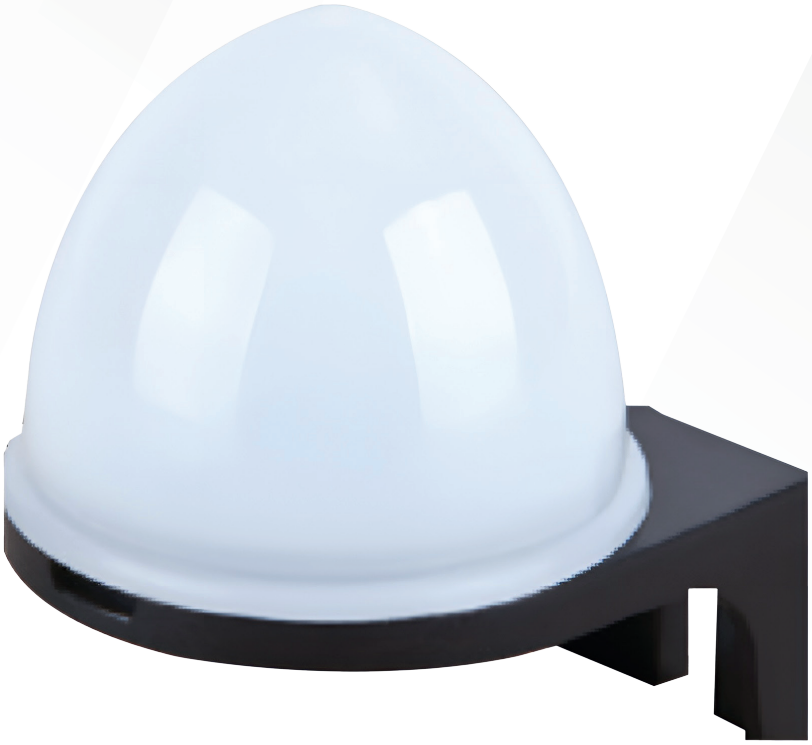
Temperature Sensor User Manual



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PROPER USE AND SAFETY REQUIREMENTS

Cut all the power when connecting and disconnecting the device to a panel.

Do not clean the device with a solvent or similar material. Only use a dry cloth.

Please do not intervene to the device when a technical problem is encountered and get in contact with a technical service within the shortest time.

If the warnings are not taken into account, our company or the authorized dealer shall not be held responsible for the negative consequences.

Do not dispose in the trash, the device must be delivered to the collection centers (electronic device recycling centers). It should be recycled or disposed of without harming human health and environment.

The installation, assembly, activation and operation of the device should be done and used by only expert professionals and in accordance with safety regulations and instructions.

1. INTRODUCTION

1.1. General Features

The temperature sensor device is used in conjunction with an Ethernet Terminal, GSM Automation Terminal, or GSM Terminal. It enables the opening or closing operation of the device monitored by the output module within the value ranges determined by measuring the temperature.

1.2. Technical Features

- Microprocessor based.
- It works with 12 V DC supply.
- It supports RS-485 Standard Modbus RTU protocol.
- Cable cross section is 4 x 0,22 mm².
- The temperature sensor cables can be connected directly to the terminal block.
- The temperature measuring range is -55 °C to +150 °C
- The device weight including the connecting cable is 40 grams in total .
- The dimensions of the device are (Width-Length-Depth) 50 x 50 x 50 mm .
- The power consumption is less than 1 VA.
- It has IP40 protection class.

1.3. Connection Diagrams

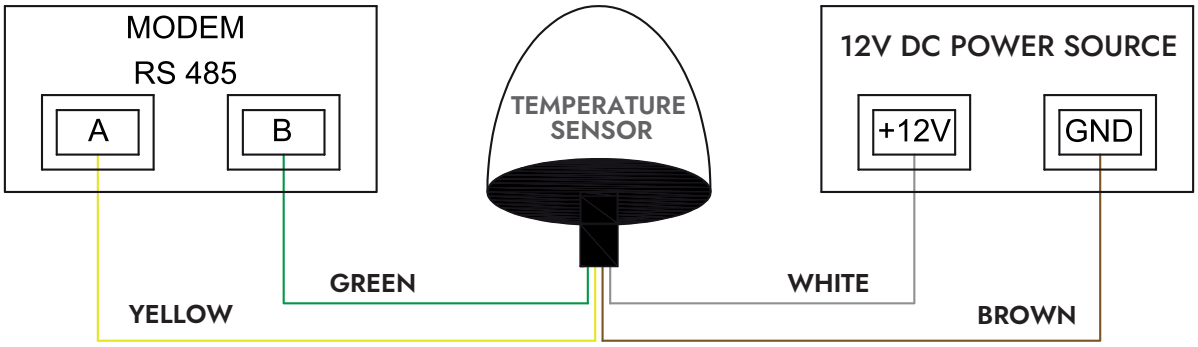

Figure 1

It is recommended to select the cable for RS-485 communications according to the table below.

Cable Distance	Recommended Cable	Alternative Recommendation
Up to 30 m	3*0,22 Shielded and Twisted Signal Cable	CAT-5 Ethernet Cable
Over 30 m	3*0,50 Shielded and Twisted Signal Cable	CAT-6 Ethernet Cable

2. MODBUS MAP

2.1. Modbus Map

MODBUS MAP					
TEMPERATURE SENSOR					
Device Information	Address	Multiplier	Unit	Type	W/R
Holding Register					
Serial Number	100	1	-	uint32	R
Temperature (°C)	1501	10	-	uint16	R

2.2. Communication Parameters

Baudrate	9600 bps
Data Bits	8
Parity	None
Stop Bits	1

NOTE: The default Modbus address is the number obtained by adding 100 to the last two digits of the serial number of the device. For example, suppose the serial number is 185247. Since it ends with 47, Modbus address becomes 147.