PASSPORT

User Manual

TEMPERATURE SENSOR (TS)

MIELTA
TECHNOLOGY

DESCRIPTION

The device is designed to measure the ambient temperature

TECHNICAL SPECIFICATIONS

The Temperature Sensor (TS) has a DS18B20 chip and a power supply circuit, the device body is brass with electroplated coating. The product has a connecting cable length of 5, 10 or 15 meters, depending on the version.

Supply voltage	10 ... 36 V		
Current consumption	3 mA		
Digital interface	1-Wire		
Operating temperature	-40 ... +100 ℃		
Measurement accuracy	+ / - 1 ℃		
Ingress Protection	IP66		
Weight	TS (5 m cable)	TS(10 m cable)	TS (15 m cable)
	0.13 kg	0.24 kg	0.35 kg

The color marking and pin assignment are shown in the table below:

№	Color	Purpose
1	Red	Power Supply Plus
2	Black	Power Supply minus
3	White	1-Wire Output

Using a single-wire digital data transfer protocol, multiple temperature sensors can be connected in parallel. Each sensor has a factory serial number, which the master device uses to distinguish them on the bus (connection point). The sensor is mounted on any surface with appropriate fasteners, the cable is laid away from sources of heat and electromagnetic radiation (high-voltage wires) and secured with clamps along the entire length.
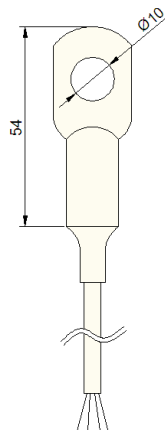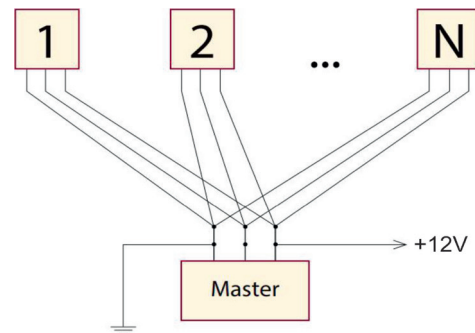

Figure1.
Sensor appearance

The cable length should not exceed 20 meters for stable data transmission.
When several sensors are connected in parallel, the power wires for each sensor should be connected as close as possible to the master device (logger). The power source for all sensors and the master device must have only one connection point to the vehicle's mass, if necessary. Do not connect any other devices along the entire length of the sensor's power cord.
The sensor is not intended to be attached directly to the vehicle engine. Prolonged vibration with high acceleration on the sensor may cause the product to fail.

CERTIFICATE OF ACCEPTANCE

Temperature Sensor is recognized as suitable for operation.