

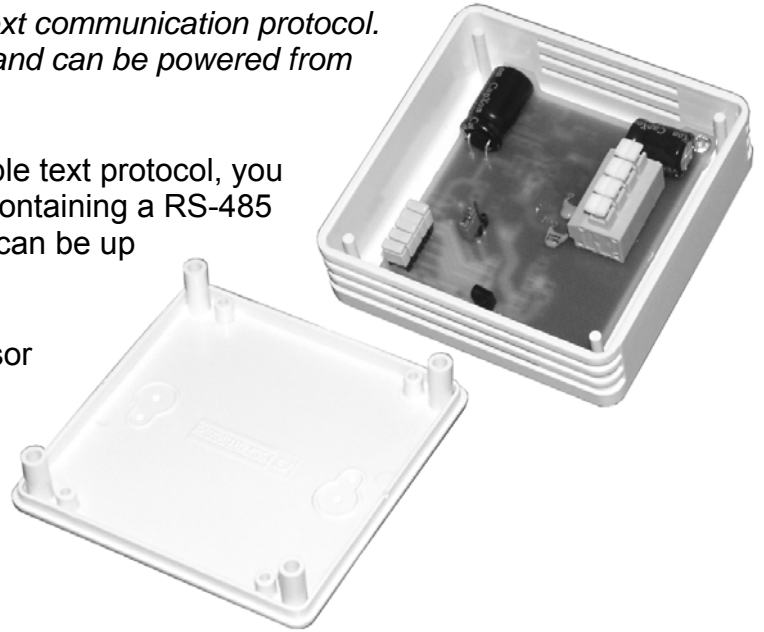
Temp-485

RS-485 indoor temperature sensor

An RS-485 temperature sensor with a simple text communication protocol. The sensor has a minimal power consumption and can be powered from a non-stabilize power supply.

The measured temperature is sent using a simple text protocol, you can connect up to 32 sensors on a 4-wire bus containing a RS-485 line and a power source. The length of the bus can be up to 1200 meters.

Temp-485 uses an integrated temperature sensor with $\pm 0.5^{\circ}\text{C}$ accuracy. The module is equipped with LED indicating that measurement is in progress.



Applications

- Wide temperature measuring systems
- Industry measurement and regulation
- Measuring temperature of storage, industrial or residential premises.
- When connected to a Poseidon device – measurements in technological premises and data transfer over Ethernet network.

Basic features

- Temperature measurement form -10°C up to $+85^{\circ}\text{C}$
- The address can be set using jumpers or terminal SETUP mode
- Each sensor is calibrated
- RS-485 communication
- LED indication
- Simple communications protocol
- Easy wall mounting
- Minimum power consumption, no need for voltage regulation
- The sensors are designed for the Poseidon SNMP thermometer device,

```
#### Temp485  SETUP  ####  
#### Hw:r1  Fw:r1  ####
```

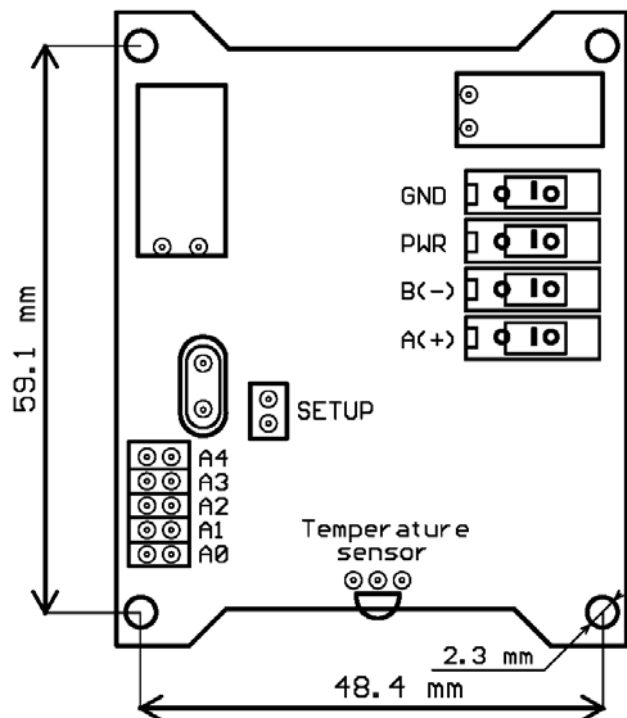
```
Temperature:      +030.3C  
D: Outg. delay:      0s  
A: Address:         8  
R: Resolution:      L  
X: Exit
```

```
### www.HW-group.com ###
```

```
Temp485>
```

SETUP mode

Temp-485 – parameters



Outside dimensions: 71 x 71 x 27 mm
Inside spacing for wall mounting: 47 mm
Protection category: IP 20

Temperature range.....	-10°C up to +80°C
Accuracy	+/- 0,5 °C in range from -10°C to +85°C
Calibrating temperature	+25°C
Resolution.....	0,1 / 0,01°C (L / H mode)
Sensor	DS18B20

Power source	+8V to +18V DC, polarity reversing protection
Power consumption.....	Typ. 6 to 10 mA,
RS-485 termination	Optional, always equipped with 10 kΩ resistors defining idle state of the line
Wire connection	WAGO connection block, max. wire diameter:1,0 mm

LED indication

The module is equipped with a LED indication:

- Power source connected (LED blinks once for approx. 0.5 sec)
- Temperature reading in progress (LED blinks for approx. 0.5 sec during every reading)
- SETUP mode activated (LED is lit while the device is in SETUP mode)

Communication protocol

The sensor works in question-answer mode. Response time is max. 50ms.

Communication bus	RS-485 / 9600 / 8N1
Address range.....	“0” to “9” (10), “A” to “Z” (26), “a” to “z” (26) = 62 addresses
Communication.....	ASCII
Response time.....	max. 50 ms for each command