Professional weather stations

USER MANUAL

CONTENT

1. General information

The PRO 150 automatic weather station is a professional weather station from the company Jcom-IoT. The weather station is equipped with a data transfer interface, enabling remote monitoring of meteorological parameters in real time.

The PRO 150 weather station measures air temperature and relative humidity.

Relative humidity is measured using a capacitive sensing element. A precise NTC measuring element is used to measure air temperature. To minimize the impact of external factors (such as solar radiation), the sensing elements are housed in a ventilated, radiation-shielded enclosure.

The PRO 150 weather station is characterized by high measurement accuracy, high performance and high reliability.

The main technical characteristics are given in Table 1.

Table1- Technical characteristics of the module

DC supply voltage, V	12
Current consumption at 12 V DC, no more than, mA	30
Air temperature measurement range, ºC	from -50 to +60
Limits of permissible absolute error in air temperature measurements, ºC	± 0.1
Relative humidity measurement range, %	from 1 to 100
Limits of permissible absolute error in measurements of relative air humidity, %	± 3
Mean time between failures, h	10000
Service life, years	8
Availability of interfaces	RS485 or RS232 (specified when ordering)
Fastening	on a stainless steel mast for Ø 60 – 76 mm
Degree of protection	IP66
Body material	Plastic
Overall dimensions: Diameter, mm Length, mm	 140 180
Weight, including mast mount, excluding connecting cable, kg	0.8
Terms of Use: Ambient air temperature, °C Relative air humidity, % Atmospheric pressure, hPa	 from -50 to + 60 from 0 to 100 from 300 to 1200
Storage conditions: Ambient air temperature, °C Relative air humidity, %	 from -50 to +70 from 0 to 100

2. Appearance

The external appearance of the weather station is shown in Figure 1:

Drawing1– Appearance of the PRO 150 weather station

3. Installation of a weather station

To ensure a long service life and proper operation of the weather station, please pay attention to the following points when choosing an installation location:

- The weather station should be located in an open area with easy access to the equipment. The area around the weather station should be free of significant obstacles (large buildings, groups of trees).
- In no case is it recommended to install a weather station near highly heated surfaces, such as roofing felt.
- The installation site is selected in an area that is characteristic (typical) of the surrounding area and does not differ from the surrounding territory in any features of heat and moisture exchange.
- The weather station should not be located in the shade.
- The weather station is installed above ground level. The installation height is at least 2 meters above ground.

Note:The measured parameter values are valid only for the location where the weather station is installed. These data should not be used to draw conclusions for the entire surrounding area.

4. Maintenance

In principle, the equipment is maintenance-free. However, it is recommended to perform a functional check once a year. During this check, pay attention to the following:

- Visual inspection to detect contamination of the device.
- Checking the operation of sensors by polling measured values.

5. Manufacturer's (supplier's) warranties

The manufacturer guarantees that the device complies with technical specifications when used in accordance with the operating conditions. The warranty period for the device is one year, counting from the date of delivery to the buyer.