PRODUCT DESCRIPTION

Thermometers and hygrometers Web Sensor P85xx with Ethernet connection are designed to measure temperature and relative humidity of air. Devices are available either with built-in sensor for temperature measurement in place of installation or with CINCH connectors for external temperature or relative humidity probes connection.

Measured values can be read and then processed using an Ethernet connection. The following formats of Ethernet communication are supported: www pages with user-design possibility, Modbus TCP protocol, SNMPv1 protocol, SOAP protocol and XML. The instrument may send also a warning message if the measured value exceeds adjusted limit. The messages can be sent up to 3 e-mail addresses or to Syslog server and can be sent by SNMP Trap too. The alarm states are also displayed on the websites. The device setup can be made by the TSensor software (see http://www.cometsystem.com) or using the www interface.

<table>
<thead>
<tr>
<th>type</th>
<th>measured value</th>
<th>design</th>
<th>mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>P8510</td>
<td>temperature</td>
<td>built-in temperature sensor</td>
<td>wall</td>
</tr>
<tr>
<td>P8511</td>
<td>temperature, relative humidity</td>
<td>1-channel transducer for external probe using</td>
<td>wall</td>
</tr>
<tr>
<td>P8541</td>
<td>temperature, relative humidity</td>
<td>4-channel transducer for external probe using</td>
<td>wall</td>
</tr>
</tbody>
</table>

* models marked PxxxxZ are custom - specified devices

INSTALLATION AND OPERATION

The devices are designed for wall mounting with two screws or bolts. Pay attention to the location of the device and probe. Incorrect choice of working position could adversely affect accuracy and long-term stability of measured values. The Web Sensor with attached DSRH/C or DST/C probe install always vertically with the sensor cover downwards. Devices don’t require any special operation and maintenance. We recommend you periodic calibration for measurement accuracy validation.

DEVICE SETUP

For network device connection it is necessary to know new suitable IP address. The device can obtain this address automatically from a DHCP server or you can use the static IP address, which you can get from your network administrator.

Connect the external probes, Ethernet cable and power adapter or PoE splitter according to the “Device connection procedure” (see next page). Then you run the latest version of TSensor software, set the new IP address, configure the device in accordance with your requirements and finally store the settings. The device setting can also be made by the web interface (see manual for devices at www.cometsystem.com). The IP address of each device is set by the manufacturer to 192.168.1.213.

ALARM LIMITS AND ERROR STATES

It is possible to set an upper limit, lower limit, time delay (for alarm activation) and hysteresis (for alarm clearing) to each measured channel. If the measured value exceeds the upper limit for longer than the set time delay, the alarm occurs and a warning e-mails or traps are send. When the measured value drops below the upper limit minus hysteresis, the alarm will be cancelled. If the measured value drops below the lower limit, alarm is causes similar.

Alarm message is sent when new alarm occurs. You can set re-sending of warning e-mails too. In case of power failure or reset the device (e.g. changing the configuration) will new alarm state evaluated and new alarm message will be sent.

Device continuously checks its state during operation and if an error appears, it is displayed Error instead measured value. The detailed description of the error messages is given in the user manual.

SAFETY INSTRUCTIONS

- Don’t use and don’t store the relative humidity probe without a sensor cover.
- It is not recommended to use the relative humidity probe for long time under condensation conditions.
- Don’t connect or disconnect thermometers while power supply voltage is on.
- Don’t use the device without the cover.
- Installation, electrical connection and commissioning should be performed by qualified personnel only.
- Use the power adapter according to technical specifications and approved according to relevant standards only.
- The external probe cable should be located as far as possible from potential interference sources.
- If it is necessary connect the device to the Internet, properly configured firewall must be used.
- The device should not be used for applications, where malfunction could cause to injury or damage to property.
- Devices contain electronic components, it needs to liquidate them according to legal requirements.
- To supplement the information provided in this data sheet, use the manuals and other documentations which are available at www.cometsystem.com
Technical specifications

Device type
Supply voltage - power coaxial connector, diameter 5.1 x 2.1mm, (+) in the middle
Power consumption
Temperature measuring range
Accuracy of temperature measurement
Relative humidity measuring range
Accuracy of relative humidity measurement
Temperature operating range (humidity 0 to 100%RH, no condensation)
Protection class
Recommended calibration interval
Electromagnetic compatibility according to
Mounting position
Weight
Dimensions [mm]

Device connection procedure

External probes
Probe type
Temperature measuring range
Accuracy of temperature measurement
Relative humidity measuring range
Accuracy of humidity measurement
Temperature operating range
Humidity operating range (no condensation)
Protection class
Recommended calibration interval
Cable length
Mounting position
Dimensions of the sensor [mm]

Power over Ethernet

---

** Notice:
The number of DSRHxx+ probes connected to the P8541 sensor is limited. It is possible connect one DSRHxx+ probe and a max. of three temperature probes, or two DSRHxx+ probes and a max. of one temperature probe.