SENSORS WITH WiFi INTERFACE

2.4 GHz WiFi network for wireless measuring and monitoring

- High quality, accurate and stable sensors of
  - Temperature
  - Humidity
  - Dew point
  - Bar. pressure
  - CO₂

- Alarm signalisation
- Wireless data transmitting via 2.4 GHz
On-line Wireless Measurement and Monitoring

Temperature ● Humidity ● Humidity computed values ● Atm. pressure ● CO₂

Sensors with WiFi interface are designed to measure temperature, relative humidity, barometric pressure and CO₂ concentration of the air in non-aggressive environment. Communication with the sensor is done via wireless WiFi network. The instrument measures with 1sec interval and the shortest sending interval to COMET Cloud is 5min.

Indoor applications are the most suitable for sensors with Wi-Fi interface. It is extremely easy to mount them on monitored places and run them on.

The measured values are displayed on the LCD display and can be send to the COMET cloud or COMET Database software at a set interval.

Application examples

Monitoring of temperature in stock rooms

Due to standards and directives, or at will, it is necessary to monitor the temperature in storage areas associated with food production, drug storage, restaurants, laboratories, factories, etc. Every such business must have a warehouse.

The sensor W3721 allows to measure temperature and humidity from two external probes within 15 meters.

Very easy installation on metal construction of shelves thanks to holder with two powerful neodymium magnets.

Mapping - creating a temperature and humidity plan of an enclosure

Why map? The answer is homogeneity when you measure from two set locations within the enclosure and environmental effects to check if the operating conditions are having an effect on the performance of a room.

Why lock it down? Because it cannot be taken away.

Alarm Indication

Exceeding of alarm limits on the channel ● Device failure ● External power failure

For each measurement channel can be set upper and lower limit. In case the limits are exceeded this alarm is indicated on the display, visually by LED or acoustically.

The COMET Cloud or COMET Database software can create alarm an e-mail and send it to user. SMS alarm text is also possible with database software and with proper accessories.

Connect the device to WiFi network for settings

Setting through sensor’s web browser interface is simple and without the need for special software. In that case the sensor must be connected to the WiFi network to enable web settings and configuration. Enter the IP address of the sensor into your internet browser, load its website, click on „Settings“ and make the settings.

Sensor setting can be also done via USB cable from COMET Vision software.

WiFi sensor W4710 measures air we brief.

For more information visit www.cometsystem.com
COMET Cloud
Measured data where you need

COMET Cloud is the internet storage of data measured by COMET sensors. The data is accessible in the internet and displayed in an internet browser. Every user has the access to his account COMET Cloud protected by password. COMET Cloud enables to add sensors, creates organisational structures such as sensor groups and user groups. The different rights can be set up for displaying and administration for each user.

- unlimited space for data
- management and organization of
equipments
- measured points
- users and their access rights
- e-mail alarming when
  - exceeding alarm limits with
    the option define recipients
    according to the level
    of exceedance
  - a fault occurs (connection,
    measurement error)
- easy report creating
- device setup from
  COMET Cloud (only once a day)

Database software
Data storage place for COMET sensors

For users of COMET products exists a solution for data collection to one central place. It is software solution based on MS SQL and installed on customer's server or personal computer.

- 24 - hour supervision
- unlimited data storage
- simple and clear access to your measured values
- single repository for all devices COMET
- alarm SMS texts and e-mails
- acoustic and visual signalization of alarms

Device communication to third party systems

Devices use Modbus TCP protocol version. Two Modbus clients can be connected to the device at one moment.

Webserver to display values, it supports also https.

JSON protocol for sending data to COMET Cloud or to own server.

Alarm e-mails with encrypted communication support (i.e. sending via G-mail SMTP server), support of text and html emails.

No limits for router selection

With conventional communication based on 2.4GHz IEEE 802.11b/g/n WiFi radio

For more information visit: www.cometsystem.com

How to create account
How to add device
How to set role – administrator/user
How to create measured place
Try GUEST access at
https://cometsystem.cloud/device/list
The complete range of probes can be found at www.cometsystem.com

Universal temperature watertight probe with IP68 for long-term monitoring of temperature in liquids.

**Pt1000TG68/E** (-80°C to +200°C)  
Brass probe for surface temperature measurements. Probe is not resistant to moisture.

Pt1000TG68/E  
(-80°C to +200°C)

**Pt1000TG7/E**  
(-30°C to +200°C)

Strap-on probe for pipe mounting and flat surfaces. Class of protection - IP65.

200-80/E, P11000  
(-30°C to +80°C)

Universal temperature watertight probe with IP68 for long-term monitoring of temperature in liquids.

P11000TG68/E  
(-80°C to +200°C)

Fast accurate air probe with fast response time without protection against moisture.

F0000 - sintered bronze sensor cover for moderate aggressive environments. Filtering ability 0.025mm.

FS200B - sensor cover with filter from stainless steel mesh, suitable for moderately dusty environment. Filtering ability 0.025 mm.

**FS200** - Teflon (PTFE) sensor cover (white colour), with increased resistance against splashing water, nonabsorbent surface, does not rust. Porous size 25μm. Temperature range -40°C to +125°C.

Ultra thin digital probe.

DIGIL/E  
(-30 to +105 °C; 0 to 100% RH)

Probe with interchangeable protection filter.

FS200B -  
sensor cover with filter from stainless steel mesh, suitable for moderately dusty environment. Filtering ability 0.025mm.

Power supply

The device is equipped with a connector USB Type-C, which is used to connect the power supply and to communicate with the computer. The sensor can be powered from main power supply, power bank or solar panel.

**A1879** - Switching power supply 5 V DC. Standard plug type EU, optional UK or US.

**MP053** - USB-C cable, 1 meter

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### External temperature/humidity probes

The probe is interchangeable with calibration certificate. The probe line wire must not exceed 30 m.

<table>
<thead>
<tr>
<th>Measured values</th>
<th>Temperature</th>
<th>Temperature, relative humidity</th>
<th>Temperature, relative humidity, atm. pressure</th>
<th>Temperature, relative humidity, CO₂, atm. Pressure</th>
<th>CO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor model</td>
<td>W0710</td>
<td>W0711</td>
<td>W0741</td>
<td>W3710</td>
<td>W3721</td>
</tr>
<tr>
<td>temperature</td>
<td>internal</td>
<td>range</td>
<td>±0.4°C</td>
<td>according the probe</td>
<td>according the probe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-30 to +60°C</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>external</td>
<td>range</td>
<td>±0.2°C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-90 to +260°C</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>relative humidity</td>
<td>range</td>
<td>-</td>
<td>0 to 95 % RH</td>
<td>0 to 95 % RH</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>accuracy</td>
<td>±1.8 % RH</td>
<td>±1.5°C</td>
<td>±1.5°C</td>
<td>-</td>
</tr>
<tr>
<td>dew point accuracy</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>CO₂</td>
<td>range</td>
<td>-</td>
<td>0 to 5000 ppm</td>
<td>0 to 5000 ppm</td>
</tr>
<tr>
<td></td>
<td>accuracy</td>
<td>±(50ppm+3% MV)</td>
<td>±(50ppm+3% MV)</td>
<td>±(50ppm+3% MV)</td>
<td>-</td>
</tr>
<tr>
<td>atm. pressure</td>
<td>range</td>
<td>-</td>
<td>-</td>
<td>600 to 1100 hPa</td>
<td>600 to 1100 hPa</td>
</tr>
<tr>
<td></td>
<td>accuracy</td>
<td>-</td>
<td>-</td>
<td>±1.3 hPa</td>
<td>±1.3 hPa</td>
</tr>
<tr>
<td>power supply</td>
<td>connector</td>
<td>USB-C</td>
<td>5.0 to 5.4 VDC</td>
<td>consumption 300 mA</td>
<td>(max. 500 mA)</td>
</tr>
<tr>
<td>radio section</td>
<td>frequency</td>
<td>2.4 GHz</td>
<td>max. transmit power: 18 dBm</td>
<td>standard: 802.11 b/g/n; contain CC3220MODSF with FCC ID: Z64-CC3220MOD</td>
<td></td>
</tr>
<tr>
<td>IP protection class</td>
<td></td>
<td>IP30</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
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The COMET System, s.r.o. company is continuously developing and improving its product. COMET System, s.r.o. reserves the right to carry out technical changes in equipment or product without any previous notice.