Data sheet:

Web-Thermometer Air Quality

Article no.: 57718

This article has been replaced by the expanded successor model #57721.

Monitor air quality

On-demand ventilation control in office buildings, schools, education and centers and sports facilities often involve measurement of CO_2. But a drawback of CO_2 measurement is that odors caused by VOC are not detected, since they have only a slight effect on the CO_2 measurements.

Even though there is an actual ventilation need, this condition is not detected using traditional technology. With this VOC measuring instrument the room air quality can be determined based on human perception.

More information on VOC can be found here

Properties

Sensor:

- **Temperature sensor:**
  - Measuring range: 0°C...50°C
- **Relative humidity sensor:**
  - Measuring range 5..95% RH, permissible ambient 0..95% (non-condensing)
- **Air quality sensor:**
  - Measuring range 450..2000ppm VOC as CO_2 equivalent

Connectivity:

- **Configurable LED tower** on sensor for optical indication of limit values
- **Monitor temperatures and trends from a browser**
- **Alarm and reporting function:**
  - E-mail for alarm or reporting functions
  - SNMP polling / alarm traps
  - Configure up to 12 alarm messages
- **Dynamic integration into other Web sites:**
  - Direct access to current measurement values, e.g. JavaScript (AJAX).
- **Current Industry 4.0 protocols:**
  - REST and MQTT support
- **Additional software interfaces for incorporating into your systems/databases:**
  - OPC server
  - Syslog
  - Sensobase (database integration via ODBC)
  - TCP and UDP sockets, client and server
  - FTP (data logging)
- **Possible applications:**
  - Monitor temperatures in the server room, network cabinet or office
  - Logging of measurements via FTP, Excel file, email attachment and internal memory
  - Dewpoint measurement, climate monitoring
  - Green IT: Monitor efficiency of the server room climate control

Data logger:

- **Internal data logger**
  - Memory capacity: min. 7 weeks, max. 20 years
  - Save frequency: 15, 30 sec, 1, 5, 15, 60 min
- **Document measurement data online in the W&T Cloud and access** from anywhere in the world
- **Internal clock**
  - Time synchronization via time server calibration
  - Battery-backed device clock

Standards & more

- optional: **ISO factory calibration** per DIN EN ISO/IEC 17025
  - with calibration certificate for verified documentation of the measured value deviations
  - Valid for 12 months
- optional: **DAkkS/DKD calibration** per DIN EN ISO/IEC 17025
  - with calibration certificate for verified traceability to national standards
  - Valid for 12 months
- **Supply voltage via Power-over-Ethernet (PoE)**
  - Phantom power using data pairs
  - Power over unused wire pairs
  - External power supply is an alternative
- **Conforms to standards both in office and industrial environments:**
  - High noise resistance per EN 61000-6-2
  - Low noise emission per EN 55032:2015 + A1 Cl. B, EN 61000-3-2 & EN 61000-3-3
- **5 year guarantee**

Wish for something!
Your suggestions for improvement and additions

Technical data

Connections and displays:

Combined sensor:	Temperature, relative humidity, air quality measurement DB9 receptacle Cable length: 2m (can be extended to max. 20m)
Network:	10/100BaseT Autosensing/Auto-MDIX RJ45 IPv6 on request
Galvanic isolation:	Network connection min. 1500 V
Power supply:	Power-over-Ethernet (PoE) or DC 12V .. 48V (+/-10%) or AC 18Veff .. 30Veff (+/-10%)
Supply connection:	Plug-in screw terminal, 5.08mm spacing Labeled "L+" and "M"
Power consumption:	PoE Class 1 (0.44 - 3.84W) typ. 87mA @24VDC, 110mA @20VAC, max. 95mA @24VDC, 55mA @48VDC
Displays:	1 LED power 2 LEDs network status 4 LEDs status and error 3 LEDs traffic-light display in sensor

Measuring unit:

Measuring range:	0°C...50°C, 5..95% RH, 450-2000ppm VOC as CO_2 equivalent
Resolution:	1/10 °C, 1/10% rH

VOC sensor, detected substances:

Substance class	Occurrence/use (example)
Aldehydes	Disinfectants, paints, varnishes, tabacco smoke, perspiration, transpiration
Aliphatic hydrocarbons	Gasoline and diesel engine fuels, vehicle exhaust, LPG, solvents, cosmetics, flatulence, household materials, PVC
Alcohols	Coating agents, household materials, adhesives, solvents, carpets, disinfectants, cosmetics
Amines	Dyestuffs, agricultural and pharmaceutical chemicals
Aromatic hydrocarbons	Printers/copiers, computers, solvents, PVC, gasoline and diesel engine fuels, tobacco smoke
Ketones	Solvents, coating agents, adhesives, fingernail polish removers, paints, varnishes, carpets

Measuring error:	Temperature: typ. @ 25°C ±0.3°C max. @ 0..50°C ±1.2°C Relative humidity: typ. @ 25°C ±3%rH max. @ 0..50°C ±7%rH (0-100%rH) Long-term stability typ. <0.5%rH / year
Aging of the VOC sensor:	Aging of the sensor is internally compensated for. It is however recommended that a CO_2 comparison measurement be performed once a year.
Measuring frequency:	4s
Storage frequency:	15s, 30s, 1m, 5m, 15m, 60m
Memory depth (4MB):	min. 7 weeks, max. 20 years

Housing and other data:

Housing:	Plastic compact housing for top-hat rail mount 105x22x75mm (LxWxH)
Enclosure rating:	IP20
Weight:	approx. 200g
Ambient temperature	Storage: -40..+70°C Operating: Non-contiguous mounting: 0 .. +60°C contiguous mounting: 0 .. +50°C
Permissible relative humidity:	0..95% RH (non-condensing)
Scope of delivery:	1x Web-Thermometer Air Quality for DIN rail mounting 1x W&T prober, 2m (temperature/relative humidity & VOC) 1x Quick Guide 1x product CD with WuTility management tool, OPC server, SNMP-MIB, reference manual German/English

We are available to you in person:

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