



Web Sensor with built-in sensors and Power over Ethernet (PoE) QUICK START MANUAL

TA0610 • TA3610 • TA5640 • TA7610 • TA7640

PRODUCT DESCRIPTION

Web Sensors TA6x0 with an Ethernet connection are compact devices featuring internal sensors for temperature, relative humidity, barometric pressure, and CO₂ concentration measurement. The devices can be powered either by a power supply adapter or via Power over Ethernet (PoE).

The **CO₂ concentration** is measured by an NDIR sensor using LED technology, ensuring low energy consumption and long-term measurement stability.

Sensors with relative humidity measurement can also calculate derived humidity quantities such as dew point temperature, absolute humidity, specific humidity, mixing ratio, specific enthalpy, humidex, and heat index.

Measured and calculated values are displayed on a two-line LCD or can be read and processed via the Ethernet connection. The values are available on the device's web interface and can be sent to the COMET Cloud online portal or the local COMET Database storage. The sensors also support integration with third-party data collection systems via Modbus TCP, HTTP GET (JSON and XML), HTTP POST (JSON), and SNMP protocols. An important feature of the devices are the ability to check measured values and notify via warning messages or acoustic/optical signals. Notification methods include status indication on the device's website, e-mail alerts, and the Syslog protocol. The device can be configured through its web interface or via COMET Vision software, which is available free of charge from the manufacturer's website (www.cometsystem.com).

type	measured values	version	mounting
TA0610	T	ambient air	wall
TA3610	T + RH + CV	ambient air	wall
TA5640	P + CO ₂	ambient air	wall
TA7610	T + RH + P + CV	ambient air	wall
TA7640	T + RH + P + CO ₂ + CV	ambient air	wall

T...temperature, RH...relative humidity, CO₂ ...concentration of CO₂ in air, P...barometric pressure, CV...computed values

INSTALLATION AND OPERATION

The devices should be mounted on a flat surface according to the procedure on the other side of this manual. Careful attention should be paid to the installation of the devices and probes. Incorrect positioning or placement can adversely affect the accuracy and long-term stability of the measured values. Devices with a measuring stem must always be installed with the sensor cover facing downwards.

The devices do not require any special operation or maintenance. Periodic calibration is recommended to ensure measurement accuracy.

DEVICE SETUP

To install the device and connect it to the network, you must have a free IP address. This address can be either static or obtained automatically from a DHCP server. Contact your network administrator and request permission before connecting the device. The device supports both IPv4 and IPv6 protocols. **The device is configured to use DHCP by default.** The IPv6 protocol is enabled in automatic mode (DHCPv6 or SLAAC) by default. Connect the network cable and, if necessary, plug in the power adapter. Since the device is set to DHCP by default, you need to determine its IP address after connecting it. This can be done by searching for the device using the COMET Vision program, viewing the IP address in the gateway/DHCP server configuration, or displaying the IP address on the device's display by pressing the button. Then enter the IP address into your web browser. From there, you can change the device settings. Configuration mode is activated by pressing the button on the home  page. The changes are applied after saving the configuration.

COMMUNICATION PROTOCOLS AND ERROR STATES

A detailed description of communication protocols and error states is available in the user manual on the manufacturer's website. A brief overview of the communication protocols can also be viewed directly on the device's web interface.

SAFETY INSTRUCTION



- The device does not have enhanced protection against water or dust ingress. Never use it in environments with splashing or dripping water, condensation, aerosols, or excessive dust.
- The device must not be operated or stored without a sensor cover.
- The humidity sensors should not be exposed to water or other liquids.
- Use a power adapter approved according to the relevant standards. Use only IEEE 802.3af PoE.
- The device is not intended for use in critical applications where a communication failure could endanger health or cause material damage. Ensure proper cybersecurity measures when operating the device.
- Installation should only be performed by qualified personnel in accordance with applicable regulations and standards.
- The devices contain electronic components and must be disposed of in accordance with current regulations.
- **For additional information**, refer to the manuals and other documentation available in the "Download" section for each device at www.cometsystem.com

Technical specifications

Web Sensor device type	TA0610	TA3610, TA7610	TA5640	TA7640
Supply voltage - coaxial connector, diameter 5.1 x 2.1 mm	5 to 24 Vdc	5 to 24 Vdc	5 to 24 Vdc	5 to 24 Vdc
Power over Ethernet	according to IEEE 802.3af, PD Class 0 (max. 15.4W), voltage from 36V to 57Vdc			
Power consumption	approx. 1W	approx. 1W	approx. 1W	approx. 1W
Temperature measuring range	-30 to +60°C	-30 to +60°C	—	-30 to +60°C
Accuracy of temperature measurement	± 0.4°C	± 0.4°C	—	± 0.4°C
Relative humidity measuring range	—	0 to 100 %RH	—	0 to 100 %RH
Accuracy of humidity measurement from 5 to 95 %RH at 23°C	—	± 2.5 %RH	—	± 2.5 %RH
Barometric pressure measuring range	—	600 to 1100 hPa *	600 to 1100 hPa	600 to 1100 hPa
Accuracy of barometric pressure measurement at 23°C	—	±1.3 hPa *	±1.3 hPa	±1.3 hPa
CO ₂ concentration measuring range	—	—	400 to 10 000 ppm	400 to 10 000 ppm
Accuracy of CO ₂ measurement in the range of 400 to 5 000 ppm **	—	—	±(50ppm+3% of measured value)	±(50ppm+3% of measured value)
Other calculated humidity variables	—	yes	—	yes
Recommended calibration interval of the device	2 years	1 year	5 years	1 year
Protection class - case with electronics / measuring end of stem	IP30 / —	IP30 / IP40	IP30 / —	IP30 / IP40
Temperature operating range	-30 to +60°C	-30 to +60°C	-30 to +60°C	-30 to +60°C
Humidity operating range (no condensation)	0 to 100 %RH	0 to 100 %RH	0 to 85 %RH	0 to 85 %RH
Mounting position	sensor cover downwards	sensor cover downwards	any position	sensor cover downwards
Storage temperature range (0 to 100 %RH, no condensation)	-30 to +60°C	-30 to +60°C	-30 to +60°C	-30 to +60°C
Weight	220 g	230 g	210 g	240 g
Dimensions [mm]				

** valid at a temperature of 15-35°C and a relative humidity of 0-80%RH. In the measurement range of 5 000 to 10 000 ppm, the accuracy is ±10% of the measured value.

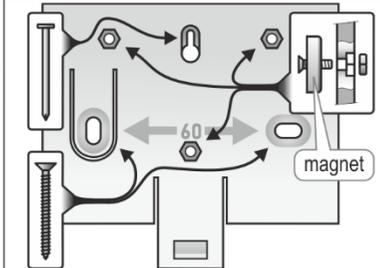
Button - functions



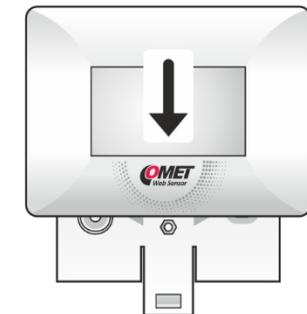
- Factory defaults procedure - turn off the device • press and hold the button • turn on the device • release the button
- Mute of active acoustic signaling - press the button briefly
- Displaying device IP address in case of the acoustic signaling is not active - press the button briefly

Device installation

1. select one of the device holder mounting methods and fasten the holder



2. slide the device onto the holder



3. connect the Ethernet cable (if PoE power supply is not used, connect the adapter)

