Application possibilities of Zertico Monitoring devices:
- Monitoring of IT infrastructure (e.g. data center)
- Monitoring of technical rooms in branch offices
- Remote monitoring of power systems
- Monitoring of telecommunication infrastructure
- Remote Tower monitoring
- 7/24 monitoring of aircon / HVAC systems
- Monitoring of UPS and generators
- Monitoring of enclosures / server cabinets / rack monitoring
- Remote Monitoring of production & logistics infrastructure
- Temperature monitoring of cold rooms / cold storage
- Remote monitoring of building systems
- Monitoring of warehouse, depot and archive
- and many more •

Features of Zertico Monitoring System 500:
- Made in E.U.
- 1U, 19" rack mount kit included
- Stand-alone operation, no additional software required
- DHCP-, HTTPS-, SNMP-, SFTP-, SSL-, CAN- FTP, Syslog
- SNMP v1/v2c/v3 compatible for integration in SNMP tools & NMS (e.g. Nagios, OpenNMS)
- 10/100 Mbit Ethernet Port, 64 MB RAM, 128 MB ROM
- SD-Slot for optional SD Card (up to 64 GB)
- 8x Automatic Identification Sensor Ports
- 2 CAN-Bus Ports for CAN-Sensors & -Units (Control Area Network)
- 4 integrated relays (manual / sensor controlled switching)
- 2x USB ports for optional video monitoring
- 16 Dry Contact Ports (optional feature)
- Future-ready with optional CAN-Units
- Extensive portfolio of Zertico Sensors
- Status indicators on the front panel (LED)
- Multilingual Web GUI with integrated logic
- Alerts such as SNMP, e-mail, SMS *(GSM modem required)*
- SMS command functions, including acknowledgement*
- Separate logins for Users and Admins, LDAP Support
- SNMP-Traps to NMS (e.g. Nagios, OpenNMS)
- SNMP MIB Files included, free Nagios plugin
- Integrated graphing functions
- XML- & CSV- export of measured sensor data
- Integrated mapping function
- Integrated logic schemes, time and date filters
- Free firmware updates (via Internet)
- and many more •

This sensor is specifically designed for the measurement of the two important environmental parameters temperature and relative humidity (RH). This combined sensor belongs to the group of Zertico’s CAN based sensors (Control Area Network). This dual temperature and humidity sensor is compatible to all Zertico remote monitoring systems and PDU’s.

Typical applications of the combined CAN bus sensor temperature and humidity are:
- Measurement and monitoring of humidity and temperature in IT infrastructure (computer room, server room, data center)
- Monitoring of cabinets and server racks (Rack Monitoring)
- Temperature and humidity monitoring of production and logistics areas
- Measuring the temperature and relative humidity in warehouses, depots, and archives
- Control and regulation of temperature and humidity in remote infrastructure
- Prevention of the formation of mold and corrosion

Easy installation of the CAN-bus sensor temperature & humidity
This temp / humidity sensor is simply connected to one of the 2 CAN-Bus ports of your Zertico monitoring systems 500/ 500 DC/ 600. Here you get a so called IP thermometer plus a Web hygrometer. The sensors are long-term calibrated.

A two meter long patch cable is included with this CAN sensor. On request, this CAN bus sensor can be extended up to 200 meters.

Thank to the integrated autodetection feature of Zertico’s remote monitoring devices, the CAN-Bus temperature and humidity sensor is automatically detected. Simultaneously the network enabled measuring of temperature and humidity is started. The measurement data is stored in the data logger of the Zertico monitoring device and can be directly displayed in web interface for graphical analysis. By mounting an optional SD card, the memory of Zertico’s SNMP-enabled data logger can be increased easily.

With a few mouse clicks, you can check temperature and humidity in the monitored infrastructure. Find out if your ventilation, refrigeration and air conditioning systems work properly. As part of the documentation of temperature and humidity monitoring, you can comfortably export the data in the form of CSV and XML files for your reports. Of course you can edit your measured sensor data with SNMP tools such as RRDtool or Cacti.

Alert in case of critical temperature or humidity
In the context of network-based measurement and control of temperature and humidity, it is advisable to be informed and alerted in time for critical values or states.

Sensitive technology such as server systems can react with disorders or even total failure in relation to the current temperature and/or humidity. Many administrators and IT managers have already made here their experiences with critical temperature.

Production environments such as Pharmaceutical production and food processing can be monitored around the clock to reduce temperature-related or humidity-related downtime.

Each Zertico remote monitoring unit can send alerts by e-mail, by SMS (internal Quad GSM modem needed) and via SNMP traps to automation software or IT management systems (HP OpenView, Nagios, Icinga, OpenNMS, PRTG etc.). Switching the integrated relays of Zertico monitoring appliances, the alert can also be transmitted to building control systems.

Zertico CAN-Bus sensor
Temperature & Humidity

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**Zertico datasheet**

**CAN-Bus Sensor Temperature & Humidity (RH)**

© Zertico® updated 09/2014

**Item number:**

14044  Zertico CAN-Bus sensor temperature and humidity (RH); suitable for all Zertico SNMP enabled remote monitoring devices; 2m RJ12 cable, screws and mounting tape included

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**Useable for:**

- all Zertico Rack Monitoring units

**Measurement range temperature:**

-10° up to +85°C / 14°F up to 185°F

**Accuracy temperature sensor:**

±1°C / 1.8°F

**Measurement range humidity:**

0- 80% (RH)

**Accuracy humidity sensor:**

±2% (RH)

**Dimensions:**

68x47x26 mm (LHW)

**Net weight:**

100g

**Maximum cable length:**

200m / 656 ft

**Autodetection:**

each Multi Sensor is automatically identified

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**Fig:** Export of measured sensor data as CSV or XML file directly from the Web GUI of Zertico’s Remote Monitoring device. Ideal for reports.

**Fig:** The multilingual web interface supports a comfortable installation of your IP-based Zertico measuring and remote monitoring system.

**Fig:** The current measurement data of Zertico’s monitoring device can also be displayed on mobile devices.

**Fig:** The innovative Zertico Monitoring System 500 is flexibly expandable.

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**Exemplary installation of a Zertico Monitoring System 500 (item No. 14000)**

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**Zertico Cabinet Monitoring Solutions**

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Qr code: Zertico datasheet CAN-Bus Sensor Temperature & Humidity (RH) © Zertico® updated 09/2014
Zertico Monitoring System 500 (item No. 14000)
With Zertico Monitoring System 500 you get a high-end monitoring solution to protect sensitive infrastructure. This device is suitable for monitoring of IT infrastructure, as well as for production and technical rooms. With its full SNMP support this Zertico monitoring system can be included in management solutions and network monitoring software. The Zertico Monitoring System 500 provides 8 ports for analog sensors. 2 CAN-bus ports support you in the future expansion of your (IT) infrastructure monitoring. Additional 4 relay ports enable IP-based control important equipment such as fans. The Zertico Monitoring System 500 can be equipped with a 16 port dry contact board and a Quad-Band GSM modem.

Zertico Monitoring System 500 DC (item No. 14004)
This IT Monitoring appliances was specially developed for the monitoring of energy and telecommunications infrastructure and is equipped with an internal 24-48V DC power supply. With 2x CAN bus ports and 8 analog sensor ports, this monitoring device can monitor your critical equipment over network or the Web. 4 integrated relays can be switched on and off manually, via SNMP command or in combination with the connected sensors. With optional 16-port dry contact board you can monitor critical UPS or HVAC systems around the clock. The Zertico Monitoring System 600 is fully SNMPv1/v2c/v3 compatible and can in integrated in almost all SNMP-enabled monitoring tools and network management systems.

Zertico Monitoring System 600 (item No. 14001)
This high-end monitoring appliance is currently the top product of Zertico’s SNMP enabled monitoring systems. In addition to 2x CAN bus ports, 8 analog sensor ports and 4x C13 relay connections are offered. The full SNMPv1/v2c/v3 support allows integration with SNMP-based building and network management solutions. Optionally, dry contacts of installations of the building and security technology can be integrated into the 7/24 surveillance of this device.

Zertico 8-Port PDU (item No. 14038)
This power distribution unit supplies up to 8 devices in the cabinet. With remote access, you can manage the power of mission-critical devices. At the same time, you can attach CAN bus sensors and CAN bus extension units to the Zertico PDU to intensify your infrastructure monitoring. Per optional GSM modem, you can even send remote SMS commands to this PDU.

Integration of Zertico Monitoring Systems in Network Management Systems
Customers use the SNMP-enabled Zertico monitoring devices under the following software (excerpt):

- Acceleops
- AdRem NetCrunch
- AggreGate Network Manager
- CA Spectrum
- Cacti
- Centina Systems NetOmnia
- Collectd
- Dhyan Network Management System
- Ganglia Monitoring System
- GroundWork
- HP Network Node Manager
- IBM Tivoli
- Icinga
- InterMapper
- iPhost Network Monitor
- Kaseya Network Monitor
- LiveAction QoS Monitor
- Monitorix
- MRTG
- Munin
- Nagios
- NetXMS
- NeutralStar
- Observium
- OpenNMS
- OpManager
- OpManteck NMS
- OSI NetExpert
- PRTG
- SevOne
- Shinken
- Solarwinds
- Spiceworks
- TcLMon
- Verax NMS
- WhatsApp Gold
- Xymon Monitor
- Zabbix
- Zenoss
Options for Zertico Monitoring Systems:

Zertico 16 Port Dry Contact board (Art.Nr. 14027)
Your Zertico Monitoring System can monitor dry contacts over TCP/IP or web with optional 16 Port Dry Contact board. Here you can attach dry contacts of your UPS, HVAC or security systems. In Web GUI of Zertico Monitoring System you can configure the dry contacts (normally open (NO) or Normally closed (NC)). Zertico’s monitoring devices can send you E-Mail, SMS (GSM modem required) or SNMP traps to automation systems or Network Management Software.

Zertico GSM Modem (item No. 14025)
All Zertico Monitoring Systems can be equipped with an optional quad-band GSM modem to send notifications and alarms via SMS. In case of total loss of network connection, you can even control the Zertico remote security devices via SMS command function. Each command is acknowledged by the Zertico monitoring system via SMS. On request, a weatherproof outdoor antenna can also be mounted to Zertico GSM modem.

CAN-Bus Extension Units:

Zertico Expansion Unit for Analog Sensors (item No. 14029)
This CAN expansion unit is connected to one of the two CAN bus ports on your SNMP compatible Zertico remote monitor device. At each of these units, up to 8 different Zertico analog sensors can be connected. By automatic identification feature, each connected sensor is immediately recognized by the Zertico monitoring appliance. In the Web GUI, you can define limits and warning thresholds for each sensor. Then just set the desired alert or notification for each sensor. The maximum distance between the CAN extension unit and the Zertico Monitoring System can be up to 300 meters. Individual CAN sensors and CAN expansion units can be connected in series.

Zertico Dry Contact Module (item No. 14028)
Monitor with this CAN module, up to 64 dry contacts of critical equipment and systems. You can configure the Dry Contact Module in the Web GUI.
Combined CAN-Bus Sensor Units

**Zertico Combined Sensor Unit for Rack Monitoring (item No. 14030)**
This Zertico sensor unit has been specially designed for monitoring of server cabinets. In this sensor unit, a passive infrared sensor, a humidity sensor and two dry contact are integrated. This sensor unit is connected via CAN bus with your SNMP-enabled Zertico measuring and remote monitoring device. In its Web GUI, you can then specify the desired actions and notifications. By use of patch cable, the total length between sensor unit and Zertico main device can be up to 300 meters.

**Zertico Combined Sensor Unit AirFlow & Temperature (item No. 14034)**
This combined sensor unit has been specially designed for the measurement and monitoring of ventilation and air-cooling systems. Monitor the presence of the Air Flow and control its temperature. The sensor unit has 6 ports for the combined Zertico AirFlow & Temperature sensors. 2 of these combined sensors are already included in the package. This CAN-Bus unit connected via patch cable to one of two CAN bus ports of your Zertico infrastructure monitoring appliance and configured via its multi-language web interface.

**Zertico Combined Sensor Unit Temperature, Motion and Vibration (item No. 14031)**
This CAN bus sensor unit combines a temperature sensor, a passive infrared sensor (PIR) and a vibration detector in a single case. Monitor with this combined sensor your mission-critical infrastructure. If temperature variations, motion or vibration is detected, you will be notified by E-mail, SMS (GSM modem required) or by SNMP traps to your building or network monitoring solution.

**Zertico Combined Sensor Unit Temperature & Humidity, (item No. 14044)**
This sensor is specifically designed for the measurement of the two important environmental parameters temperature and relative humidity (RH). This combined sensor belongs to the group of Zertico’s CAN based sensors (Control Area Network). This dual temperature and humidity sensor is compatible to all Zertico remote monitoring systems and PDU’s.

**Zertico Combined Sensor Unit Temperature, Motion and Vibration (item No. 14031)**
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**Zertico Combined Sensor Unit: Smoke Detector, Temperature & Humidity (item No. 14035)**
This Zertico CAN sensor unit integrates a smoke detector, temperature and humidity (RH) sensor. Monitor with this combined CAN-sensor unit important infrastructure such as technical room, server room, production and storage areas. Up to 8 of these units can be connected in one chain and occupy only one CAN bus port on your Zertico Infrastructure Monitoring System. In web interface, you can set for the temperature and humidity individual thresholds and warning values. All Zertico remote monitoring devices can send E-Mail, SMS (GSM modem required) and SNMP notifications.
Zertico Temperature Sensor (item No. 14010)
The SNMP-enabled Zertico temperature sensor is specifically designed for the precise measurement of the temperature. This sensor is compatible with Zertico’s complete range of SNMP-enabled Monitoring Systems. Via automatic identification feature, the sensor is automatically detected by IP-based Zertico monitoring device. This sensor can be placed on request up to 100m away from the Zertico monitoring appliance via patch cable.

Zertico Outdoor Temperature Sensor (item No. 14011)
The SNMP-enabled Zertico Outdoor Temperature sensor has been developed for the measurement of temperature in damp / wet (production) environments as well as for outdoor area. The length of the connecting cable is 15 meters. If desired, this weather-resistant sensor can be located up to 100m away from the Zertico monitoring appliance. This sensor is automatically detected by the Zertico monitoring system.

Zertico Humidity Sensor (item No. 14012)
This precise sensor used to measure the important environmental factor relative humidity. The sensor can be located up to 50m away via patch cable from SNMPv1/v2c/v3 compliant Zertico measuring and monitoring system. Per automatic identification function, this humidity sensor is automatically detected and displayed in the Web interface of your Zertico Monitoring System. You can then define limits and warning levels for humidity. Your Zertico Monitoring System will send you alerts via E-mail, SMS (requires GSM modem) or SNMP traps. The measured humidity data can easily be exported as XML- or CSV-file.

Zertico Water Leakage Sensor (Item No. 14018)
The SNMP-enabled Zertico water sensor detects water and water-based liquids. In case of water leaks and the presence of condensation you will be reliably alerted by the Zertico Infrastructure Monitoring System. The water sensor can be extended up to 100 meters away of your Zertico main unit to enable flexible installation.

Zertico Sensor unit for Water Detection Cable (Item No. 14020)
This SNMP-enabled sensor unit is specially designed for the water Zertico Water Detection Cable. Connect to this sensor unit Zertico’s Water Leak Detection with individual length of up to 50 meters. The sensor unit itself can be extended with RJ12 patch cable up to 100 meters away from the Zertico Infrastructure Monitoring device. Per auto detection feature, the sensor is detected automatically and can be easily configured in the Web GUI of Zertico units. In case of leakage, you will be notified by Zertico’s early warning system.

Zertico Water Detection Cable (item No. 14021)
This Water Detection Cable is specifically designed for the reliable detection of leakage and water. The chain is simply mounted to the Zertico Sensor unit (item No. 14021). The Water Detection Cable is available in lengths from 1 to 50 meters. On the entire length of this cable, the discharge of water / condensation / moisture is detected.

Zertico Vibration Sensor (item No. 14014)
Protect your valuable infrastructure: This sensor is used to detect vibrations / glass breakage. This vibration sensor can monitor doors, windows, glass walls and walls made of plasterboard. This sensor can be connected in chain to protect larger areas. The Zertico monitoring appliance detects the sensor automatically by use of the automatic identification feature.
Analog Sensors for Environmental Monitoring

Zertico Smoke Detector (item No. 14017)
Install this smoke detector to be notified immediately in case of fire. On request, the Zertico smoke sensors can be connected in series. By use of RJ-12 patch cable, the smoke sensor can be located up to 150 meters from the Zertico main control unit. The Zertico monitoring system will detect the smoke sensor automatically by auto identification feature. In case of smoke or fire, you will be notified via E-Mail, SMS (GSM modem required), or via SNMP traps to your automation software or NMS.

Zertico Motion Detector (item No. 14019)
Protect your mission critical infrastructure: This SNMP-enabled motion detector has been specifically designed for the detection of presence and movement. The integrated passive infrared sensor has a range of up to 12 meters at an angle of 110°. This Motion Detector can be located up to 50 meters from the Zertico monitoring unit. The monitoring appliance recognizes the sensor by auto detection feature. In the Web GUI of the Zertico Monitoring System, you can set the notifications such as E-Mail, SNMP traps or relay actions. Time and date filters for motion detection can also be easily configured.

Zertico Security Sensor (item No. 14015)
Protect your important server room and server cabinets against unauthorized access. The SNMP-enabled sensor security is a magnetic switch used for reliable monitoring of windows, doors, cabinets, etc. Once a door is opened, you will be notified by Zertico Monitoring System via E-Mail, SMS (GSM modem required), or via SNMP traps.

Analog Sensors for Power Monitoring

Zertico DC Voltage Sensor (item No. 14023)
This sensor has been specifically designed for network-based monitoring of DC current from 0-10V. It is compatible to all Zertico remote monitoring systems. The DC voltage sensor is simply plugged into one sensor port of your Zertico monitoring system. You can configure the DC current sensor in web GUI. This sensor can be located up to 100 meters of the Zertico main unit. The DC current sensor is also available for monitoring of 0 to 14.8 V DC voltage (item No. 14024).

Zertico AC Voltage Sensor (item No. 14016)
Zertico’s AC Voltage Sensor is suitable for TCP / IP-based monitoring of AC current. The sensor is simply connected to an analog port of the sensor Zertico monitoring device and automatically displayed in it’s web GUI. You will be informed immediately, for example, during a power failure or when your UPS is running.

Zertico 4-20 mAmp Signal Converter Sensor (item No. 14022)
This 4-20 mAmp signal converter sensor is specially designed for the full SNMP-compliant Zertico Monitoring Systems. Existing analog sensors such as pressure sensors can be integrated with signal converter sensor in the network-based monitoring of Zertico devices. The measuring converter sensor is automatically detected by Zertico main unit. In it’s web interface, you can configure the signal converter individually. Set thresholds and select notifications such as E-Mail or SNMP traps. All measured data is stored in integrated data logger of Zertico Monitoring System and can be easily exported as a CSV- or XML-file.
Zertico Sensors for Dry Contact installation

**Zertico Airflow Sensor (item No. 14033)**
Server cabinets need non-stop air circulation to cool important servers and network equipment. Zertico’s Airflow sensor is connected via a 2-wire signal cable to the dry contact module (optional) of the Zertico Monitoring System. If the fan of your power supply or cooling unit fails, you will be alerted immediately by Zertico’s Remote Monitoring System.

**Zertico Security Sensor for Dry Contacts (item No. 14032)**
Protect important infrastructure such as technical room or server room from unauthorized access. This sensor is magnetic contact it’s simply connected via two-wire cable with the optional Dry Contact Module of your Zertico monitoring appliance. In the web GUI you can define the normal state of the magnetic switch (normaly open / normaly closed). Get notified via E-mail, SMS (GSM modem required) or via SNMP trap when your mission critical infrastructure is entered or Server cabinet is opened.

**Zertico Smoke Detector with Relay Output (item No. 14043)**
The smoke detector operates autonomously and is powered by a 9V lithium battery. With support of it’s integrated testing function of the measuring chamber, a high level of operational safety of this smoke detector is supported. Zertico’s smoke detection sensor also detects possible pollution and reports this via the integrated fault indication LED. If smoke enters the detector, it produces a loud warning signal with more than 85 dba.

**Zertico Gas Sensor / gas detector (item No. 14040)**
Uncontrolled escape of gases such as butane, propane, methane must be reliably detected. Gas heating systems should be also equipped with a gas detector. Zertico’s gas detector has been specifically designed for the detection of gases. This gas sensor is attached to dry contacts of the SNMP enabled Zertico Monitoring Systems (Dry Contact Board needed). Optionally this gas detector can be attached to Zertico’s Dry Contact Expansion unit.

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Fig.: Protect your infrastructure against unwanted threats such as temperature, water leakage or power failure.

Fig.: In the Zertico online store you can order the Zertico monitoring systems and sensors.