orbit merret

... outstanding measurement value

OMT 1450

ENVIRONMENTAL QUALITY MEASUREMENT

TEMPERATURE

HUMIDITY

DEW POINT

GASES CO_2

PRESSURE

DUST

LIGHT

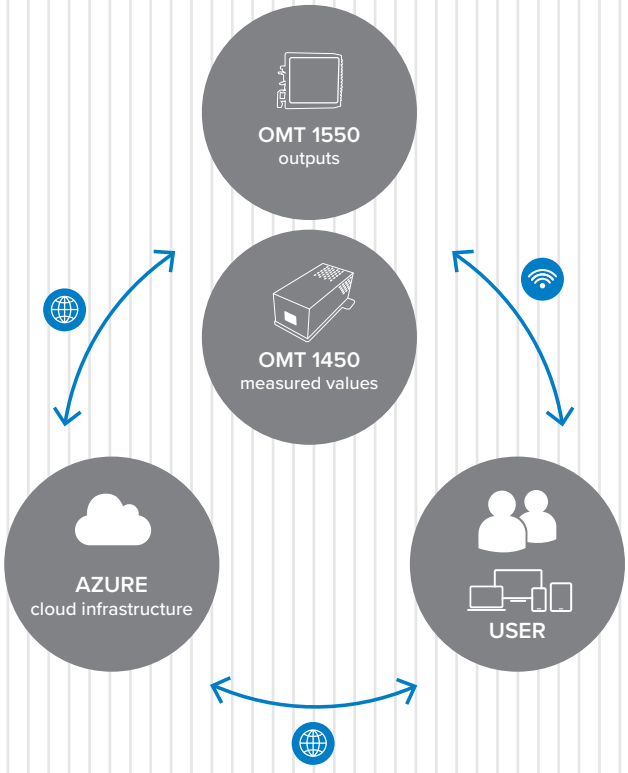
TEMPERATURE HUMIDITY DEW

OMT 1450

ENVIRONMENTAL QUALITY MEASUREMENT

- TEMPERATURE, HUMIDITY, DUST, UP TO 6 DIFFERENT GASES
- EASY ACCESS TO MEASURED DATA FROM ANY LOCATION
- CLOUD DATABASE STORAGE AND ANALYSES
- POWER OVER ETHERNET
- INTERNAL MEMORY

Device communication diagram



DEVICE

OMT 1450 is designed for environmental quality monitoring, primarily inside buildings. A number of individual devices can be interconnected to form a virtual measuring network and gather information about large rooms such as warehouses, production halls or entire multistorey buildings.

All measured data can be stored into a cloud database and viewed in an easy-to-use web application. It can then be used to monitor, analyse and compare individual values over time. Thanks to this, you will be able to determine how effective are the measures taken to improve the environmental quality of the monitored space.

Monitored environmental quantities
temperature, humidity, dew point, concentration of dust particles size PM1, PM2.5, PM4, PM10 and their quantity, atmospheric pressure, CO2, CO, light intensity and its components and altitude. Thanks to an intelligent algorithm, it can determine the overall air quality. An alarm with a record can be set for each measured quantity and a clearly structured summary report can be generated every day.
In the standard mode data transfer is realised over the Internet by the means of an Ethernet cable, which also provides OMT 1450 with power. In special modes, OMT 1450 can connect to a Wi-Fi network and transmit data over it. Transmission can also be realized using a Wi-Fi mesh network, that devices create amongst themselves. Thanks to this, it is possible to use the device purely locally without access to the cloud storage. In such case remote access and monitoring via web application are not possible. Initial configuration of OMT 1450 device is done either via Bluetooth interface and a mobile application or via its own Wi-Fi and a web browser.

OMT 1450 is powered by Power Over Ethernet technology, so a single cable is used for both data and power transmission. Simplicity of connection and installation saves your time and money and you will never have to deal with replacing a discharged battery.

POINT GASES PRESSURE DUST LIGHT

ENVIRONMENTAL MEASUREMENT AND CONTROL

Measured values will allow you to monitor environment that is of interest to you and, if necessary, take measures to improve it. From ventilation, to ensuring the necessary humidity and air quality to setting the appropriate lighting conditions at any given time of the day. OMT 1450 can be connected via an online application to OMT 1550 module, which can be used to control lights, heating, air humidifiers and purifiers and many other devices.

WEB APP

For easy device management, creating rules and action steps that follow exceeded values, monitoring trends and connecting multiple devices to the measuring network, all you need to do is to use our intuitive web application. No need to install anything or to ask your IT department for permission and assistance. Simply use your online account to enjoy the benefits that your OMT 1450 devices will bring you.

In the web app, you can register and manage all your devices. At a glance you can see the individual status of each one, so you immediately know which device is not in use and can be deployed or where a potential problem could occur. In illustrated graphs, you can view the current development of measured values for each device and compare trends from different time periods and locations. For individual measurements, the web app offers settings that will generate reports containing only values that are of interest to you. That way you can receive a daily e-mail containing a clear summary of data you had selected, without having to log in to the app.

If you integrate OMT 1550 output device, which controls the environmental controllers, into your system, you can set the action steps. Using several intuitive clicks and entering threshold values, you can set which measured values the corresponding output of the selected device will respond to. This makes it really easy to connect for example a humidifier that will maintain the required humidity in the room or turn on the lighting with the right color component only at the appropriate time.

Device OMT 1550

USE WITHOUT CLOUD APPLICATION

OMT 1450 can also be operated purely locally, either over an existing LAN network, independently, or by connecting several devices to create a mesh network. In this case, the devices do not send data via the Internet and there is no long-term record of the values including their analysis. However, all measured values can be read using a mobile application and a web interface. Alternatively, you can connect the device to your own server using MQTT technology and REST API. In the case of local mode operation, basic action steps can still be set and OMT 1450 can be used for controlling environmental controllers by the means of OMT 1550.

...impeccable air quality monitoring!

TECHNICAL DATA

OMT 1450

Sensors	
Temperature	0º...60ºC, ±1 ºC
Dew point	0º...85ºC
Humidity	20...70 %, ±3 % (for temperature 20º...60ºC)
Gases	0...60 000 ppb TVOC, NO_2, CO_2, Acetone, Ethanol, Ethan, Isopropene
Ligting	ambient light intensity + RGB, IR Dynamic range 18.000.000:1
Dust concentration	by weight PM1.0, PM2.5, PM4 a PM10 numeric PM0.5, PM1.0, PM2.5, PM4 a PM10
Air quality index	0 - 500
Pressure	300...1 100 hPa
Connection	
Ethernet	10/100 Mbps
WiFi	AP/STA, 2.4 GHz, built-in aerial
Bluetooth	BLE4.1, 2.4 GHz, built-in aerial
Communication protocols	REST API, MQTT, AZURE IoT, Modbus TCP
Power supply	
Power over Ethernet (PoE)	44...57 V, 802.3 af class 0, consumption 2 - 5 W
Outputs	
2x	5...24 V, isolated
Mechanical properties	
Material	ABS
Dimensions	73 x 45 x 110 mm (w x h x d)
Mounting	4 holes for fixing screws Ø 3 mm
Operating conditions	
Settling time	up to 3 minutes
Operating temperature	-20º...60ºC
Storage temperature	-20º...60ºC
Cover	IP20

OMT 1550

Output	
5x relay	Normally open (SPST), max. 250 V/5 A
Input	
1x	12...230 V/0,4 mA, isolated 2.5 kV
2x	5...24 V, isolated 2.5 kV
Connection	
Ethernet	10/100 Mbps
WiFi	AP/STA, 2.4 GHz, built-in aerial
Bluetooth	BLE4.1, 2.4 GHz, built-in aerial
Communication protocols	REST API, MQTT, AZURE IoT, Modbus TCP
Power supply	
Power over Ethernet (PoE)	44...57 V, 802.3 af class 0, consumption 2 - 5 W
Mechanical properties	
Material	PA66 plastic, UL 94-0, blue
Dimensions	80 x 25 x 85 mm (w x h x d)
Mounting	DIN rail 35mm
Operating conditions	
Settling time	up to 3 minutes
Operating temperature	-30º...85ºC
Storage temperature	-30º...85ºC
Cover	IP30

ORDER CODE

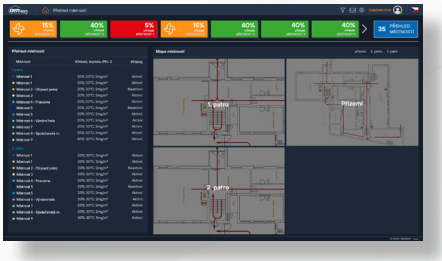
OMT 1450 - ☐☐☐☐ - ☐☐

Temperature/Humidity	No	**0**					
	Standard (±1ºC, ±3% r.v.)	**1**					
	Hight accurancy (± 0.2ºC, ±1.8% r.v.)	**2**					
Plyny	**No**		**0**				
	CO_2		**1**				
	NO_x		**2**				
	CO_2 + NO_x		**3**				
Dust	no			**0**			
	yes			**1**			
Digital inputs	**no**				**0**		
	yes				**1**		
Specifications	standard					**0**	**0**

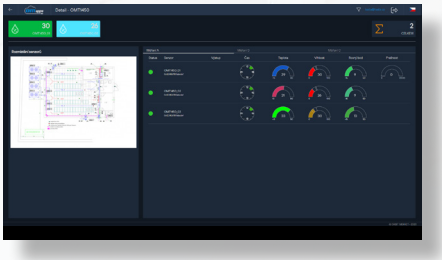
OMT 1550 - ☐ - ☐☐

Outputs	no	**0**		
	yes	**1**		
Specifications	standard		**0**	**0**

OKNO PROGRAMU



Floors



Rooms

Air

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