DATASHEET
Environment
Monitoring
System
RAMOS Micro

CONTEG

ENVIRONMENT MONITORING SYSTEMS

The **RAMOS monitoring system** is used to control the state of the indoor and outdoor environment (temperature, humidity, water leakage, smoke,…) in large data centers, server rooms, or individual racks. It allows you to easily integrate and subsequently monitor other components, such as intelligent power distribution units (PDUs), backup power supplies (UPS), AC units, etc. The system supports remote control.

RAMOS consists of hardware components and software—the CONTEG Pro Server application. Hardware comes in 4 different versions of main monitoring units, which are differentiated by their functionality levels. Each version has different features, a different number of sensors as well as different inputs and outputs. A wide range of accessories is available for the units, such as detectors, sensors, sirens, magnetic door contacts, expansion modules, etc.

The CONTEG Pro Server application has a user-friendly web interface for sensor configuration, data collection, settings for transmitting information about monitored parameters in different ways (SNMP, e-mails, SMS, MMS, SMTP, …) and extensive graphical display of values.

	RAMOS Ultra/Ultra ACS	RAMOS Optimax/ Optimax GSM	RAMOS Plus/Plus GSM	RAMOS Micro
Suitable for	DC and server rooms	Multiple racks/cabinets or server room	Single or few racks/cabinets	Single racks/cabinets
Sensors	8×/2× intelligent ports (expandable up to 500 sensors)	8× intelligent ports and 10× digital inputs (expandable up to 150 sensors)	4× intelligent port	Up to 5 sensors (Temperature, Humidity, Pressure, CO_2, leakage…) via 2× universal ports and 2× digital inputs
Virtual sensors	80× open	10× open (can be licensed up to 80)	5× open (can be licensed up to 40)	–
Communication	LAN: SNMP v1, v2 and v3, VPN Modbus TCP and RTU GSM: with plug-in USB GSM modem Serial: RS485 (Modbus only)	LAN: SNMP v1, v2 and v3 Modbus TCP, Modbus RTU via external adapter GSM: GSM version only	LAN: SNMP v1, v2 and v3 Modbus TCP GSM: GSM version only	LAN and Wi-Fi 802.11 bgn SNMP v1 and XML
Notifications	E-mails, SNMP traps SMS *, MMS *, Call *, Speech Skype call and SMS Relay control *, Door control * Server restart/shutdown/ wake-up	E-mails SNMP traps Siren and strobe * Relay *, El. latch SMS variant with built-in GSM modem	E-mails SNMP traps Siren and strobe * Relay *, El. latch SMS variant with built-in GSM modem	E-mails
Integration to CONTEG Pro Server	Free for up to 4 units—additional are licensed			Licensed
Advantages	Intelligent ports variability Expandable solution Monitoring of 3rd-party devices Sensor mapping	Intelligent ports variability Expandable solution Variant with built-in GSM modem Monitoring of 3rd-party devices Rack thermal mapping	Intelligent ports variability Variant with built-in GSM modem Monitoring of 3rd-party devices Rack thermal mapping	Small and simple Wi-Fi, PoE, SSL
Dimensions H × W × D	46 × 216 × 138 mm	44 × 432 × 50 mm (19" × 1U)	32 × 115 × 64 mm	30 × 103 × 68 mm
Voltage	7.5 V DC/12 V DC	5 V DC	5 V DC	5 V DC (PoE or via external power adapter)

* Requires appropriate accessories.

Intelligent ports
Connected by LAN cables, automatically detects and powers the accessories.

Virtual sensors
They allow monitoring of other devices, reading of log parameters, PING, etc. It is possible to integrate 3rd party devices (PDU, UPS, cooling, etc.).

Notifications
Email, commands via logs, voice messages, SMS, etc.

Easy expandability
Using the expander for RAMOS Optimax and RAMOS Ultra.

Remote control
Setup and remote control of the device using the CONTEG Pro Server software application.

RAMOS MICRO AND ITS ACCESSORIES

RAMOS Micro

RAMOS Micro is a simple small solution for monitoring the environment. With two new universal ports it can monitor up to 5 sensors (temperature, humidity, flood, pressure, CO_2, etc.) and with 2 binary inputs it can detect other possible parameters such as door contacts, smoke, motion, flood detectors, etc. It supports PoE power supply and WiFi communication. With the new universal ports, new accessories can be connected, such as spot water detection and rope water detection, or a special sensor for pressure and CO_2 measurement.

Technical information:

- 2 universal RJ12 ports through which up to 5 parameters can be monitored.
- 2 input contacts for connecting detectors or contacts
- Power supply: PoE or external 5V power supply (optional accessory RMS-PW-05)
- Protocols: SNMP, XML
- Communication: LAN and WiFi
- Dimensions: 30 × 103 × 68 mm
- Built-in webserver

Included: RAMOS Micro, brackets, temperature sensor with 3m cable

Code	Description
RAMOS Micro	Main monitoring unit

Temperature sensor

Dimensions: 40 × 40 × 20 mm
Resolution: 0.1 °C
Range: -30 to +70 °C

Included: 3 m sensor connection cable

Code	Description
RMS-STB	Temperature sensor in a box with 3m cable.

Temperature and humidity sensor

Dimensions: 40 × 40 × 20 mm
Resolution: 0.1 °C/0.1% RH
Range: -30 to +70 °C/0-100 % RH

Included: 3 m sensor connection cable

Code	Description
RMS-STHB	Temperature and humidity sensor in a box with 3m cable.

Air quality sensor

It measures temperature, humidity, atmospheric pressure and the content of volatile substances in the air.

Dimensions: 40 × 40 × 20 mm
Resolution: 0,1 °C/0,1 % RH/10 Pa/1-32 ppb
Range: -30 to +70 °C/0-100 % RH/30-110 kPa/0-60,000 ppb

Included: 3 m sensor connection cable

Code	Description
RMS-SQAB	Air quality sensor in a box with 3m cable.

Temperature, humidity and CO_2 sensor

It measures the temperature, humidity and CO2 content of the air.

Dimensions: 60 × 60 × 20 mm
Resolution: 0.1 °C/0.1% RH/1-32 ppm
Range: - 30 to +70 °C/0-100 % RH/300-40,000 ppm

Included: 3 m sensor connection cable

Code	Description
RMS-STHCOB	Temperature, humidity and CO_2 sensor in a box with 3m cable.

Spot water detection

It does not require an external power supply and plugs into the sensor ports. For indoor and outdoor use.

Dimensions: 47 × 37 × 22 mm
IP protection: IP67
Mounting hole: Ø 4 mm

Included: 3 m sensor connection cable

Code	Description
RMS-DE-07	Spot water detection with 3m fixed cable.

Rope water detection

Rope water detection with relay output and port for connection to sensor ports.

Power supply via adapter (included), via terminals or via sensor port.

The connection cable for the detection rope (RMS-DE-06-D2) is 2 m long (included).

The basic detection rope (RMS-DE-06-EXT2) 2m long is included in the kit and can be extended with 10m extensions (RMS-DE-06-EXT10), 50m extensions (RMS-DE-06-EXT50) and 5m connecting parts (RMS-DE-06-C5) up to a maximum length of 185m

Kód	Popis
RMS-DE-06	Rope water detection.

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