VERTIV™

Vertiv™ Knürr® RMS III®
Constant Reliability with Remote Monitoring

Advantages

- Guarantees fault-free operation.

- Early disturbance detection.

- Incident logging.

- Automatic monitoring simplifies maintenance.

- Activates countermeasures in the event of a malfunction.

- Central status control of: filters, paper, toner, meter readings, inspection intervals, and much more.

- Sensors can be connected in any arrangement.

System Reliability and Availability

System and network management requirements mean the systems' ambient conditions must be monitored. Compliance with the required ambient parameters is extremely important for successful/continuous operation of high-grade components.

Management Software

Inadmissible fluctuations in temperature or humidity often cause hardware defects. Constant automatic monitoring of these parameters is therefore a basic requirement for safeguarding operability. All the relevant data can be recorded and forwarded directly to a higher-level management system, e.g. Nagios Liebert Trellis® with the RMS III®.

Alarm Consolidation and Control

Simply recording data does not suffice to ward off damages. When faults occur, short response times are aided by the monitoring system triggering actions automatically (e.g. activating additional fans).

Fast Response

When defined incidents occur, the RMS III® can immediately send a message as an "SNMP trap" to the management system or directly as an e-mail to a technician or an SMS gateway.

Vertiv™ Knürr® RMS III®

Description

– Compact construction - Zero unit solution (for mounting outside the 19" installation area).
– Cost-effective orderly installation with Plug & Play concept.
– Convenient cabling with RJ11 and/or screw terminal sensor connections.
– TCP/IP connection via Ethernet.
– Configuration via SNMP and Web-Browser.
– Web access is password-protected and optionally encrypted (https).
– 3 different user levels.
– Freely programmable filter system (Boolean logic) for implementing all alarm conditions.
– Compatible with standard network-management and infrastructure-management systems such as Liebert Nform™ or Open-Source Software.
– Sensors for monitoring all relevant environmental influences (optional).
– Internal power supply for sensor equipment (no additional power supply necessary).
– Alarms via relay, network management or e-mail (SMTP).
– Support from Modbus/TCP.
– System time balancing with NTP servers.
– Support of MQTT

Technical data

– 1x Ethernet connector 10/100 Mbps.
– 6x 1-Wire
– 12x digital on/off connector.
– 1x RS485 connector.
– Up to 40 sensors.
– 4 digital relays outputs (50V).
– Operating voltage: 12 VDC.

Compliance

CE Marking cpmpliant with
– 2014/35/EU Low Voltage Directive (LVD)
– 2014/30/EU Electromagnetic Compatibility Directive (EMC)
– 2011/65/EU RoHS2 Directive.

Color

– RAL 7021, dark-grey.

Scope of delivery

– 1 x Knürr RMS III®.

Optional Items

– 1x Power supply. e.g.: 01.180.035.9000001
– 1x 19" Mounting Shelf for RMSIII 06.108.428.8001

How supplied

– Single parts.

W	H	D	Model	Order No.	UP
350	42	170	RMS III®	**06.108.401.8**	1 pc

Dimensions in mm:

				Conversion:	
W = Width	h = Installation height	U = Standard rack unit	kg = Weight	1 mm = 0.03937 inch	
H = Height	d = Insertion depth	(1 U = 44.45 mm)		1 kg = 2.2046 pounds	
D = Depth	L = Length	UP = Packaging unit			

Combined sensor Temperature Humidity "Eco" (RMS III)

- **Quick and easy installation**
  – Insensitive to disturbances.
  – No additional power supply required.

LUF20069

- **Technical data**
  – Temperature measurement range: 0..60°C.
  – Accuracy : 2%.
  – To be connected to 1-wire port.

- **Scope of delivery**
  – 1 x sensor.

Model	Order No.	UP
ECO	**06.108.421.9**	1 unit

Temperature Humidity Sensor RMS III

- **Avoids dew**
  – Insensitive to disturbances.
  – Additional power supply required.

RMS20019

- **Technical data**
  – Air measurement range 30 – 90 %.
  – Accuracy: 2 %.
  – To be connected to 1-wire port.

- **Scope of delivery**
  – 1 x sensor with RJ45 port.

Order No.	UP
06.108.411.9	1 unit

Door Contact Sensor RMS III

- **No additional magnet required**
  – Magnet bridge sensor works on all magnetic conductive materials (no special mating part required).
  – Can also be used for monitoring side panels and roof.

RMS20006

- **Technical data**
  – Temperature range: -20° C to +70° C.
  – Switching voltage, max. 200 VDC.
  – Switching current, max. 500 mA.
  – To be connected to digital IN port.

- **Scope of delivery**
  – 1 x sensor with 4 m connection cable.
  – 1 x mounting kit.

Order No.	UP
06.108.115.9	1 unit

Water Sensor RMS III

- **Conductive water spot sensor**
  – Detects presence of water.

- **Technical data**
  – Operating voltage: max. 24 VDC.
  – To be connected to 1-wire port.

- **Scope of delivery**
  – 1 x sensor with 2 m connection cable.
  – 1 x mounting bracket.

Order No.	UP
06.108.418.9	1 unit

Smoke Detector
RMSII / RMSIII

- **Sends signal to IT Department**
  - Optical smoke detector with VdS approval.
  - For early fire detection with smoke emission.
  - Power supply provided via RMS compact.
  - Standard cable length, 4 m.

- **Technical data**
  - Operates between -20°C and +75°C.

- **Scope of delivery**
  - 1 x sensor with 4 m connection cables.
  - 1 x mounting kit.
  - To be connected to digital IN port.

W	H		Order No.	UP
Ø 90	75		**06.108.211.9**	1 unit

Vibration Sensor
RMSII / RMSIII

- **Protection against vandalism**
  - Detects vibrations.
  - Theft prevention.
  - Reset possible via Viewer software.
  - 1 x sensor with 4 m connection cables.
  - To be connected to digital IN port.

	Order No.	UP
	06.108.213.9	1 unit

Passive Infrared Movement Sensor
RMSII / RMSIII

- **Security**
  - Room monitoring with state-of-the-art technology.

- **Technical data**
  - VdS approval: Classes A + B.
  - Range of volumetric lens: 2 – 16 m.
  - Long lens range: 29 – 50 m.
  - Curtain lens range: 17 – 30 m.
  - Manipulation monitoring.

  - Digital fault evaluation.
  - Corner or wall mounting.
  - To be connected to digital IN port.

- **Scope of delivery**
  - 1 x sensor with 4 m connection cable.
  - 1 x mounting kit.

	Order No.	UP
	06.108.214.9	1 unit

Power over Ethernet (PoE) Update Set
RMSII / RMSIII

- **Save on cabling**
  - Saves on costly power supply installations (e.g. WLAN access points) or enables centralized UPSs for decentralized equipment (e.g. IP phones).
  - Using the PoE update set, the RMS can therefore support installations with the corresponding UPS concepts and/or non-standard IDF room.

- **Technical data**
  - Input: 48 V DC, 400 mA.
  - Output: 12 V DC (12 W).
  - Operating temperature: 0° to 40° C.
  - Storage temperature: -40° to 70° C.
  - Operating air humidity: 10% to 80% rel. humidity.

- **Dimensions**
  - Length: 81 mm.
  - Width: 52 mm.
  - Height: 28 mm.

- **Approvals**
  - EMI: FCC Part 15 Class B, CE Class B.
  - Safety: UL, TUV.

- **Scope of delivery**
  - 1 x PoE adapter.
  - 1 x mounting bracket for easy attachment to the RMS (similar to the classic power supply unit mounting bracket).

- **How supplied**
  - In sets.

Model	Order No.	UP
PoE update set	**06.108.230.8**	1 unit

Carbon Monoxide Alarm Sensor
RMSII / RMSIII

- **Detects smoke-free gases and triggers an alarm**
  - Used for detecting carbon monoxide emitted by burning fire-retardant cables.
  - Sends signals carbon monoxide to the RMS and triggers an alarm.
  - Standard cable length, 4 m.

- **Technical data**
  - Operating voltage: 12 VDC (± 20 %).
  - Power consumption: approx. 190 mA (idle) approx. 280 mA (alarm).
  - Sensitivity: 100 ppm CO.
  - Ambient temperature: -15° C to 40° C.
  - Piezo alarm: approx. 85 dB(A) at 3 m away.
  - Protection rating: IP 20.
  - Switching output 12 V DC: Max. 170 mA.
  - Relay output: Changeover contact, max. 5 A 230 V DC, max. 5 A 30 V DC.
  - Reset: automatic when the gas concentration falls below sensitivity level.
  - To be connected to digital IN port.

- **Dimensions**
  - Length: 140 mm.
  - Width: 125 mm.
  - Height: 40 mm.

- **Color**
  - White.

- **Scope of delivery**
  - 1 x sensor.
  - 1 x sensor connection cable.
  - 1 x Mounting kit.
  - 1 x Instructions

- **How supplied**
  - In sets.

Model	Order No.	UP
Carbon monoxide alarm sensor	**06.108.211.8**	1 unit

Dimensions in mm:

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RMS III® Technical Data

- **Ethernet:** 100 Mbit
- **HTTP**
- **DHCP**
- **SNMP v1**
- **SNMP v2/3:** future
- **SNMP Trap**
- **Trap destinations:** 5
- **SNTP**
- **SMTP**
- **SMTPv3 TLS**
- **E-mail Destinations:** 5
- **SMS/ netGSM /RS232**
- **SMS Destinations:** 5
- **Logger**
- **Logger reccords:** 250.000
- **MQTT**
- **IPv6**
- **Certificate Upload**
- **DO Local conditions**
- **1-Wire sensors:** 16
- **1-Wire UNI support**
- **RS-485 support**
- **RS-485 sensors:** 24
- **Modbus /TCP**
- **Email Alarm reminder**
- **Email Periodical Status**
- **Power Input 1:** 9-30V
- **DI (Digital Inputs):** 12
- **DO (Digital Outputs):** 4
- **DO max load:** 50V/1A
- **Operating temperature:** -30-85°C

New in RMS III®

- **Supports broad range of sensors**
  – 1-wire, Digital, RS485 sensors
  – 4 Relays utputs

- **Features**
  – Boolean Logic
  – State- of-the Art secure network protocols
  – Accessfilter (Device Firewall)
  – Cloud Interface already built in (MQTT)
  – Screw Terminal Connectors for Digital Sensors
  – Local Log