Rittal – The System.
Faster – better – everywhere.

Smart Monitoring System – compact, secure, efficient
Transparency for more efficiency

- Continuously record and monitor the energy consumption of plant and machinery
- Visualise data on a display or through a web interface
- Log and communicate measurement data
Transparency and end-to-end data management thanks to the Smart Monitoring System from Rittal

The Smart Monitoring System features several interfaces for communicating and transferring measurement data on variables such as electricity, voltage, power and efficiency. The NH measurement module can be connected to an overarching control system using a Modbus RTU. A CAN bus interface provides the connection to the Rittal monitoring unit (CMC III), which can also translate data into alternative protocols as a gateway. Meanwhile, the USB interface is ideal for carrying out configuration, importing updates and logging data.

Utilise these benefits for your continuous improvement process (CIP):
- Identify potential savings
- Boost energy efficiency
- Increase competitiveness
- Reduce CO₂ emissions on a sustainable basis
- Benefit from tax relief

Further information about energy management to ISO 50001 can be found in the whitepaper available on the Internet under the respective Model No.
NH measurement module for RiLine NH fuse-switch disconnectors

- Everything integrated into one compact module (measured value recording, analysis electronics, communication and memory module)
- Quick and easy assembly
The components of the Rittal Smart Monitoring System

NH measurement module
- Continuous recording, evaluation and monitoring of energy consumption
- Compatible with RiLine NH fuse-switch disconnectors, size 00 – 3
- No need to wire individual components
- Data communication via Modbus RTU or CanOpen
- Configuration via USB interface or fieldbus
- Data logging on internal Flash memory

Display and power pack
- Display over 50 measurement parameters on the backlit LCD display
- 20 NH measurement modules can be depicted on one display
- Intuitive configuration of alarm and limit values
- Intuitive configuration of alarm and threshold values

CMC III monitoring unit
- Compact monitoring solution for industrial and IT applications
- Monitors temperature, access and energy data
- Configuration and visualisation via built-in web interface
- Supports Ethernet protocols TCP/IP, SNMP, SSH, FTP, DNS and many more
- Connection to control desk via OPC UA server
- Low wiring and maintenance outlay thanks to plug & play design
NH measurement module

Compact measurement unit consisting of measurement data acquisition unit, evaluation electronics, communication module, measurement power supply and flash data memory. Output measurement with accuracy class 2 and integral current converters with accuracy class 0.5.

Functions:
- Continuous measurement of energy-related data
- Data logging in CSV format (Excel)
- Individual limit monitoring and alarm function
- May be integrated into the CMC III monitoring system
- Automatic address allocation via CAN bus

Material:
- Polyamide (PA 6)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Supply includes:
- NH measurement module
- Connector 2 x 2.5 mm² with preassembled bridge
- USB cable (mini-B connector on micro-B jack)

for NH fuse-switch disconnectors

<table>
<thead>
<tr>
<th>To fit Model No.</th>
<th>Packs of</th>
<th>00</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9343.000/9343.020/9343.040</td>
<td>9343.100/9343.120/9343.140</td>
<td>9343.200</td>
<td>9343.300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated operating current max. A</td>
<td>150</td>
<td>250</td>
<td>400</td>
<td>600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated operating voltage V, ~</td>
<td>400, 3–</td>
<td>400, 3–</td>
<td>400, 3–</td>
<td>400, 3–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of poles</td>
<td>3-pole</td>
<td>3-pole</td>
<td>3-pole</td>
<td>3-pole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable outlet</td>
<td>Bottom</td>
<td>Bottom</td>
<td>Bottom</td>
<td>Bottom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of connection</td>
<td>Box terminal</td>
<td>Box terminal</td>
<td>Box terminal</td>
<td>Box terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection of round conductors mm²</td>
<td>4 - 95</td>
<td>35 - 150</td>
<td>95 - 300</td>
<td>95 - 300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection of sector-shaped conductors mm²</td>
<td>–</td>
<td>50 - 150</td>
<td>120 - 300</td>
<td>120 - 300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clamping area for laminated copper bars, W x H mm</td>
<td>13 x 13</td>
<td>20 x 3 - 14</td>
<td>32 x 10 - 20</td>
<td>32 x 10 - 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width mm</td>
<td>102</td>
<td>170</td>
<td>185</td>
<td>214</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height mm</td>
<td>108</td>
<td>123</td>
<td>123</td>
<td>123</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth mm</td>
<td>88</td>
<td>92</td>
<td>107</td>
<td>107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy class</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interfaces</td>
<td>2 x CAN bus (FL445) 2 x Modbus RTU (FL445) 1 x USB</td>
<td>2 x CAN bus (FL445) 2 x Modbus RTU (FL445) 1 x USB</td>
<td>2 x CAN bus (FL445) 2 x Modbus RTU (FL445) 1 x USB</td>
<td>2 x CAN bus (FL445) 2 x Modbus RTU (FL445) 1 x USB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model No.</td>
<td>1 pc(s.)</td>
<td>9343.070</td>
<td>9343.170</td>
<td>9343.270</td>
<td>9343.370</td>
<td></td>
</tr>
</tbody>
</table>
NH measurement module

Accessories

**LCD display**
for monitoring

**Functions:**
- Illuminated display with more than 50 measurement parameters
- Intuitive configuration of alarm and limit values
- Voltage supply for display via pluggable RJ12 patch cable

**Material:**
- Polyphenylene ether (PPE)

**Colour:**
- RAL 9005

**Protection category IP to IEC 60 529:**
- IP 51 (front)
- IP 41 (enclosure)

**Supply includes:**
- LCD display
- Modbus RTU cable (RJ12), length: 2 m

---

**Power pack**
for LCD display
For mounting on support rails to EN 60 715, 7.5 mm high.

**Material:**
- Polycarbonate
- Fire protection corresponding to UL 94-V0

**Colour:**
- RAL 9005

**Protection category IP to IEC 60 529:**
- IP 20

**Supply includes:**
- Power pack
- Connector 2 x 2.5 mm²

---

Also required:
- Power pack, see page 7

---

CMC III Processing Unit/
Compact
see Cat. 34, page 450
You can find the contact details of all Rittal companies throughout the world here.

www.rittal.com/contact