MERLIN NX

INTEGRATED ROOM MANAGEMENT WITH NIAGARA EXTENDED

Benefit from the freely programmable BACnet MS/TP room controller for HVAC, lighting and shading.
MERLIN NX
Integrated Room Management

MERLIN NX is a new innovative room management system that offers

Enhanced energy efficiency
Save up to 30% on energy costs while maximizing comfort and well-being. MERLIN NX can support any application requirement across heating, ventilation, air conditioning (HVAC) as well as lighting and shading controls for higher energy efficiency.

Flexible integration options
The built-in Modbus interface featured in MERLIN NX enables multiple integration options, increased scalability, reduced wiring efforts and numerous other benefits.

Performance-based engineering
Reduce engineering time up to 30% through live engineering and Niagara eXtend (NX), which utilises single-tool engineering throughout the Building Management System. Building operators will benefit from its consistent and flexible handling options.

Cost-effective installation and commissioning
Increase commissioning efficiency up to 80% with the BACnet MS/TP-based MERLIN NX. Its features enable economically feasible installations and commissioning for both new construction and refurbishments.
Enhanced energy efficiency

MERLIN NX offers the highest possible energy efficiency classification ‘A’ according to the EN 15232 which enables up to 30% energy cost savings but also maximizing comfort and well-being.

What’s more, it reduces energy usage via:
- **Common control strategies** across HVAC, lighting and shading
- **Demand-based energy generation** for optimized cooling/heating down to the plant control level
- **Application flexibility** to freely program requirements, even customizable by room

Flexible integration options

MERLIN NX features a built-in Modbus interface for a multitude of benefits, including:

**Wide integration possibilities**
Simple integration of Modbus devices such as sensors, I/O modules for light and blind controls, meters, wall modules and much more. Additional option integrates Modbus to DALI or KNX gateways for the ultimate application flexibility.

**Scalability**
Flexible expansion of room control systems thanks to its Modbus I/O extension.

**Less wiring**
Bus wiring to Modbus sensors and remote I/O reduces wiring efforts and associated costs.

**Freely selectable wall modules**
Choose from an enhanced wall module selection that meets the exact design and functionality requirements. The wall modules are capable of simultaneously handling HVAC, light and blind controls - reducing the number of units required and saving valuable space. Modules can be easily replaced from a wide selection of units at the end of its lifetime or as needed.
## Performance-based engineering and flexibility

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freely programmable</td>
<td>The universal NX platform allows seamless application coverage and common control strategies across HVAC and non-HVAC systems.</td>
</tr>
<tr>
<td>Single-tool engineering</td>
<td>Operational platform for room, plant &amp; supervisor programming, as well as application testing. Functional block programming. No integration effort needed.</td>
</tr>
<tr>
<td>Anytime engineering</td>
<td>Prepare offline in the back-office or perform optimizations on-the-fly without downloading anything. Instant access to live values from controllers on a function block level.</td>
</tr>
<tr>
<td>Documentation generator</td>
<td>Download customer-specific application documentation, including wiring information, graphics, function block parameters and wiresheet printouts.</td>
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</tbody>
</table>

## Cost-effective installation and commissioning

<table>
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<td>Master-follower concept</td>
<td>Fully automated application change rollout from the master controller to networked controllers. Especially beneficial for quick adaptations at sites with multiple similar rooms (e.g. offices, hotels).</td>
</tr>
<tr>
<td>Differential download</td>
<td>This function supports a fast and system-wide application optimization.</td>
</tr>
<tr>
<td>Flexible mounting</td>
<td>The universally mountable controller can be installed on DIN rails, small installation housings, and walls (including optional terminal covers).</td>
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<tr>
<td>Installation savings</td>
<td>BACnet MS/TP based MERLIN NX and its features enable an economically feasible installation and commissioning for both new construction and refurbishments.</td>
</tr>
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</table>
Niagara eXtended (NX)
Single-Tool-Engineering for Integrated Building Management

Niagara eXtended (NX) is the CentraLine engineering tool, covering all application needs, from room to plant control and up to supervision and cloud solutions.

It is expanded upon Niagara 4 – the industry leading platform for integrated building management - and offers as NX version additional benefits and value to CentraLine customers and partners.

Connected Building Management
Managing and servicing your building becomes much easier with our new cloud-based solutions, utilizing the collective power of Internet of Things (IoT) technologies and the deep domain expertise of our engineers.

Supervision
ARENA NX by CentraLine is a powerful integration and supervision platform, offering a unified vision across all building subsystems. ENERGY MANAGER puts you in control of your building’s energy consumption.

Plant Control
CentraLine offers a comprehensive line of connected building management controllers for a variety of applications including HVAC and fully integrated solutions. CentraLine-specific are two further components:

• Application Library
The CentraLine Application Library ensures unparalleled energy efficiency as well as maximum application reliability. Energy Class A can be attained to meet international standards such as EN 15232.

• Panel-Bus IO Concept
Robust and scalable, the CentraLine Panel Bus Input/Output modules support application sizes from small appliances to large systems with over 1000 IOs.

Room Control
Our extensive offering of configurable and freely programmable room solutions ensures both customer comfort and high-energy efficiency. Easily integrate lighting and blind control solutions in accordance with EN 15232.

Investment Safeguard
Niagara eXtended allows for seamless integration of Honeywell legacy installations, including C-Bus, Lon and BACnet systems. This minimises cost of change and offers additional flexibility to upgrade installations to the Internet of Things.
## Versions

<table>
<thead>
<tr>
<th>Version</th>
<th>Power supply</th>
<th>AOs</th>
<th>Uls</th>
<th>Bls</th>
<th>Rel.</th>
<th>Triacs (24/230VAC)</th>
<th>Sum ID</th>
<th>24VAC outputs for field devices</th>
<th>2nd RS485</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLMERL4N</td>
<td>230 VAC</td>
<td>6</td>
<td>10</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>24</td>
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<td>CLMERL6N</td>
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<td>4</td>
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<td>600 mA</td>
<td>1</td>
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<tr>
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<td>4</td>
<td>4</td>
<td>24</td>
<td>300 mA</td>
<td>1</td>
</tr>
<tr>
<td>IRM-RSC</td>
<td>Package with 10 terminal covers for large controllers</td>
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<td>4</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>14</td>
<td>300 mA</td>
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<td>CLMERS5N</td>
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<td>4</td>
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<td>14</td>
<td>600 mA</td>
<td>1</td>
</tr>
<tr>
<td>IRM-RSC</td>
<td>Package with 10 terminal covers for small controllers</td>
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## Details

- **Optional terminal covers may be plugged**
- **Sylkbus**
- **Modbus**
- **6 x AO**
- **24VAC**
- **10 x UI**
- **BACnet MS/TP**
- **BACnet MSTP & Power for WIFI adapter RJ45**
- **Input terminals for AC supply voltage (max. 230VAC)**
- **Input terminals for 24VAC supply voltage (max. 230VAC)**
- **4 x Relay**
- **Input terminals for supply voltage (max. 230VAC)**
- **24VAC power supply**
- **24VAC output**
- **Service button**
- **Status LEDs**

*CLMERL6N example

## More information

[centraline.com/merlinnx](https://centraline.com/merlinnx)

**Technical details, Documentation, videos**

**Contacts to room control experts**

**Registration for our expert newsletter**

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