



Prioritizing  
safety  
through  
protection  
& control



## smart Relay Monitoring System

Service not too late, not too early but exactly at the right time



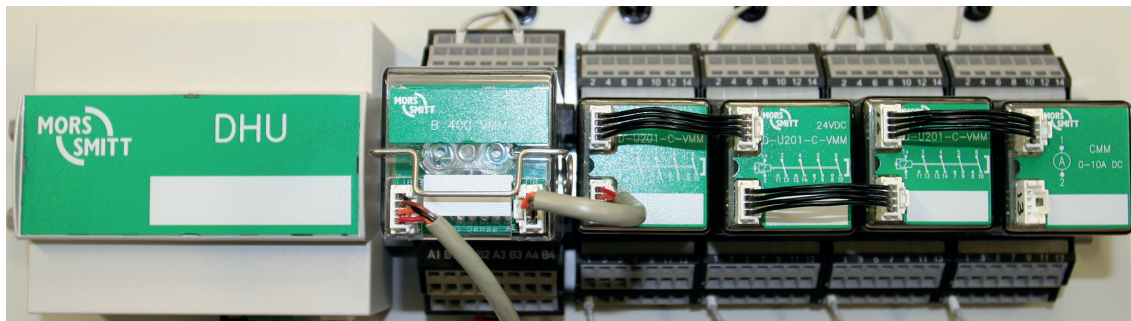
### Issue:

Relays and devices like lamps or buttons are exchanged too early when they are still OK or too late when lifetime is over. Market demands moving from scheduled-based maintenance to condition-based maintenance.

### Solution:

The Relay Condition Monitoring System enables predictive maintenance for relays and other devices as actual operations and contact switching loads are known, products can be exchanged at exactly the right time.

### East condition-based maintenance



DHU



RCM relay+  
VMM



RCM relay+  
VMM



RCM relay+  
VMM



RCM relay+  
VMM



CMM

smart Relay Monitoring System consists of:

- + Voltage Measurement Module (VMM)**  
VMM is an extra option for existing D and B relays to monitor the voltage per relay contact. Any defect on VMM electronics has no effect on relay operation. Relay operation is always guaranteed.
- + Current Measurement Module (CMM)**  
CMM is an additional product in a D or B relay housing to monitor the current per relay contact.
- + Data Handling Unit (DHU)**
  - Connect up to 50 relays/devices (daisy chaining possible)
  - With maximum number of devices connected 7 days storage capacity (optionally more)
  - Serial bus allows devices to communicate with each other
  - Data output to TCMS or maintainer laptops, various formats such as CSV, SQL



Ready to show



Ready to quote



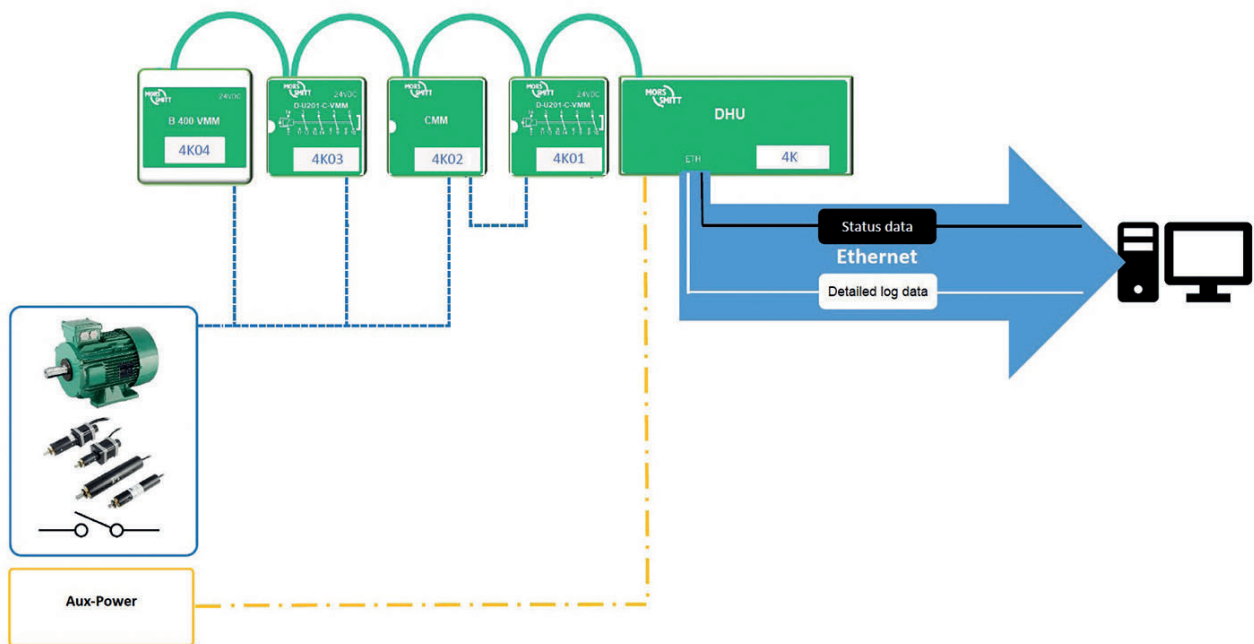
Ready to produce



In production

### Key features:

- Condition-based maintenance to optimize relay usage and prevent electrical issues
- Remaining lifetime can be customized in number of operations, months/years or percentage
- Condition-based maintenance for devices switched by the relay, for example:
  - Remaining operating cycles of doors
  - Remaining burning hours of lamps
- Relay connected to Data Handling Unit (daisy chaining possible)
- Fault finding during commissioning or an incident



### System Data Outputs:

- VMM: Device ID, number of operations, time ON / time OFF, coil voltage, internal temperature
- CMM: Device ID, 4 current measurement channels
- DHU: Device ID, serial bus status

[www.morssmitt.com](http://www.morssmitt.com)

### To discover everything relays can do, contact

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