



## REX-SYSTEM WITH EM12D

Transparency in the machine building  
and plant engineering industry

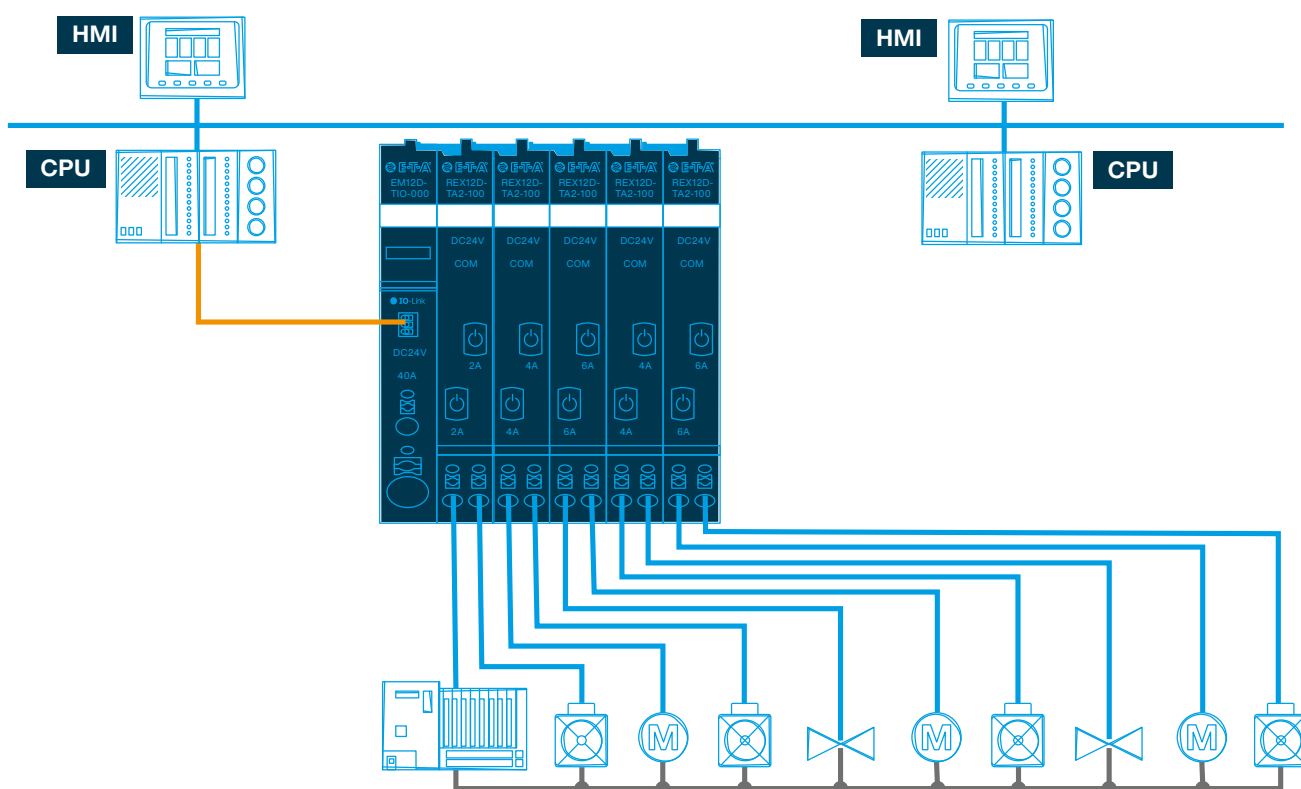


## EM12D-TIO REX-SYSTEM

Fast IO-Link connection in the machine building industry

Increasing machine uptime and keeping production at a consistently high level is the focus of the machine construction and process control industry. The IO-Link system offers unrivalled system transparency through quick implementation, a high number of available components and the transmission of measuring data and status information. It allows early detection of fault conditions on

the machine and prevents unexpected downtimes. The EM12D-TIO supply module has an IO-Link interface. Status information and important measuring values of up to 16 channels are transmitted via this interface to the IO-Link master. The IO-Link master can collect the information of the entire DC 24 V power supply and transmit it to the superordinate control unit by using only one port.





**Fast and easy implementation**  
into the control unit environment

**Transparency** from the  
field level to the Cloud

**Independent** from  
the used bus system



 **IO-Link**



## EM12D-TMB REX-SYSTEM

### Transparent power distribution in the plant engineering industry

In plant engineering and construction, the various equipment for the DC 24 V power supply protection are often separated from each other by large distances. Therefore, many users wish to have a centralised control unit in a machine or system with a decentralised structure. E-T-A's EM12D-TMB supply module offers ideal conditions for a reliable and transparent power supply protection.

The Modbus-RTU is considered a very robust interface. Therefore, the EM12D-TMB supply module can communicate with the Modbus-RTU over long distances and send important system data to the superordinate control unit. The users have remote access to the different circuit protectors and get a permanent overview of the current system conditions.

**High flexibility**  
through modular design

**Robust interface**  
for use in all environments

**Remote access and**  
machine transparency

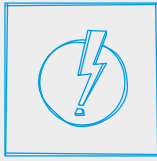


### STATUS INDICATION

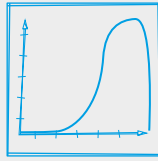
The LED indicates the current status of the load output. It is also transmitted to the control unit and the visualisation of the system.



Status indication



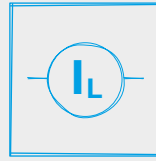
Short circuit



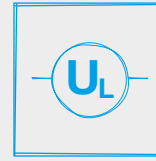
Overcurrent

### DATA MEASURING

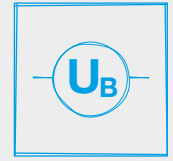
The circuit protectors of the REX system continuously measure the relevant load circuit data, e.g. the load current and the load voltage.



Load current



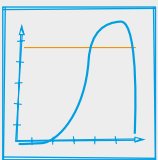
Load voltage



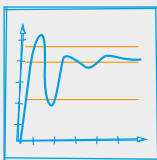
Input voltage

### DATA ANALYSIS

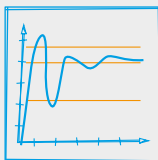
Through continuous data measuring, these values can be analysed by displaying the peak and average values.



Limit value



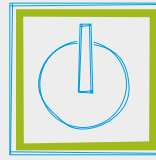
Current curve



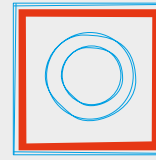
Voltage curve

### REMOTE CONTROL

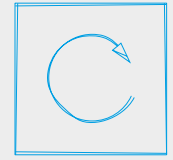
Through continuous data measuring, these values can be analysed by displaying the peak and average values.



Control ON



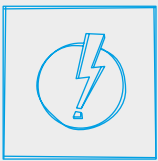
Control OFF



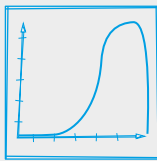
Control RESET

### ROOT CAUSE ANALYSIS

In the event of a short circuit in the supply line or an overload at the load, the circuit breaker switches off automatically. This information is displayed and facilitates trouble-shooting.



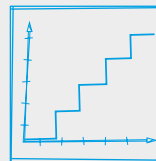
Short circuit



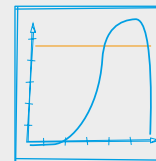
Overcurrent

### PARAMETRISATION

In case of adjustable devices, the current rating can be selected via the control. This allows easy adjustment to changing system configurations and reduces storage costs.



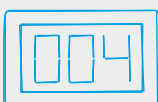
Current rating adjustment



Limit value

### TRIP COUNTER

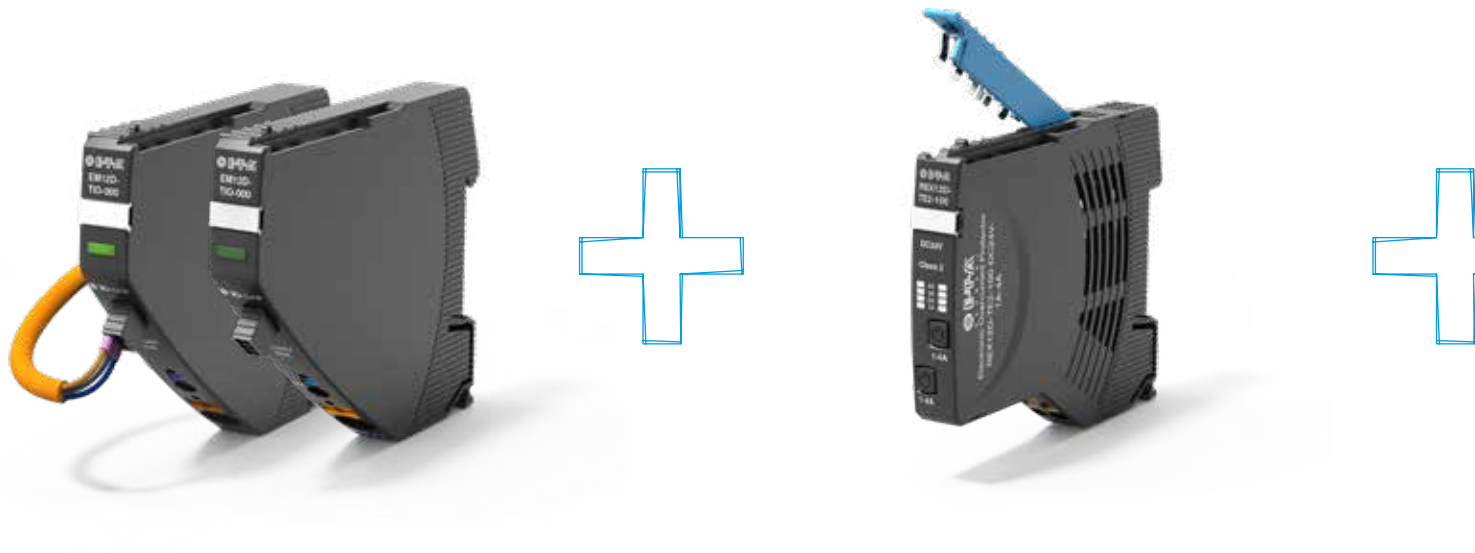
The number of disconnections is recorded, providing an overview of the frequency of hazardous situations and enabling their evaluation.



Trip counter

# VERSATILE AND INTELLIGENT DC 24 V PROTECTION

for your individual requirements



## SUPPLY MODULE

The EM12D-T supply module transmits a high number of diagnostic information to the superordinate control unit including input voltage, load voltage, load current, limit values and various adjustment options of the circuit protector such as the rated current and the limit value.

## CIRCUIT PROTECTORS

The electronic REX12D and REX22D circuit protectors are specifically developed for the machine construction and process control industry. Both versions meet the special requirements of this sector. The devices are available with fixed or adjustable current ratings. You can select this via a selection switch directly at the device or via the digital interface, i.e. via the connected control unit. All other relevant information, e.g. status, actual load current and warning signals of each individual channel, is also transmitted.



## YOUR BENEFITS

- **Increased machine and system uptime** through clear failure detection, high transparency and remote diagnosis
- **Provides flexibility** through easy mounting, disassembly, modular design and easy adjustment
- **Saves at least 50 % time** through innovative and flexible connection technology
- **Saves costs** – as no further accessories are required, such as jumpers or busbars
- **Saves up to 65 % space** through 12.5 mm slim modules



### POTENTIAL MODULE

The REX system's PM12-T potential distribution modules can be divided into two main groups. Not only the + DC 24 V distribution, but also the 0 V minus distribution (GND) can be easily implemented in the same system. The slim modules save space and allow direct assignment of the power distribution in the system. The direct assignment can be easily displayed functionally in the related ePlan providing support for wiring and trouble-shooting.

### REX SYSTEM

The intelligent EM12D REX system provides the perfect combination of transparency and compactness. The supply module allows distribution of up to 40 A. The current can be distributed to the connected circuit protectors via the connector arm of the REX connection technology without any further tools needed. This innovative technology reduces wiring efforts and eliminates the need for tedious disconnection of busbars in the event of a device replacement or system expansion.

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