

Smart, digital and versatile.

The communications interface for smart buildings.

NEW



OEM MODBUS RTU CONVERTER

Valve drive technology

→ www.moehlenhoff.de

The OEM Modbus RTU Converter

The smart route to digital building management systems

The OEM Modbus RTU Converter from the global market leader for thermal valve drives offers a simple way of connecting analogue, thermal and/or motoric valve actuators to a digital RS485 system. The Modbus technology offers advanced monitoring options, easy installation, superior energy-saving potential and flawless operation.

With just one single register structure, the OEM Modbus RTU Converter controls various valve actuators as on/off, 3-point or 0–10 V versions – or even a mixture of these. As a result, the digital installation process in building management systems is simplified.

German-made precision

The perfect electronics combined with a small and robust casing made of durable polycarbonate ensures fail-safe operation even under extreme conditions. The OEM Modbus RTU Converter has an IP 54 rating, meaning it's fully dustproof and waterproof and can be fitted anywhere, at any angle.

Standardisation

The Möhlenhoff OEM Modbus RTU Converter can be used with the relevant 0–10 V valve actuators and is therefore a flexible and standardised solution for Modbus control.

Flexible connection options

The OEM Modbus RTU Converter supports both thermal and motoric valve actuators, as well as two passive thermistors and/or two active sensors to measure temperature, pressure, humidity, CO₂ and other parameters. Up to 24 fully equipped Converters can be controlled in series. The perfect connection for the digital future.

Simple installation

Möhlenhoff wants to make complex systems simpler. Which is why the OEM Modbus RTU Converter is designed to be quick and easy to fit. Standardised cables with M8 and M12 connectors provide the wiring between the Converter, valve actuators and sensors. As a result, the device can be mounted in a space-saving way and is accessible anywhere.

Highlights at a glance



Multi-colour LED function indicator

IP 54 at a 360° installation angle

Compact casing made of durable polycarbonate



M12 and M8 connectors to install valve actuators and sensors easily

Easy and space-saving to mount

Benefits

- Easy digitalisation of analogue valve actuators through signal conversion
- Small valve actuators for areas where space is lacking
- In future, bus/protocol changes possible without exchanging the valve actuators
- Two separate valves can be controlled
- Additional sensor connection options mean two temperatures can be requested
- Valve actuators and sensors are simple to fit thanks to standard, pre-installed plug-in connections
- Up to 24 converters can be activated in series (extension possible)
- Lower fitting costs because expensive Y connectors are not required
- Modbus RTU data protocol communication
- Different valve actuators are controlled by one register structure

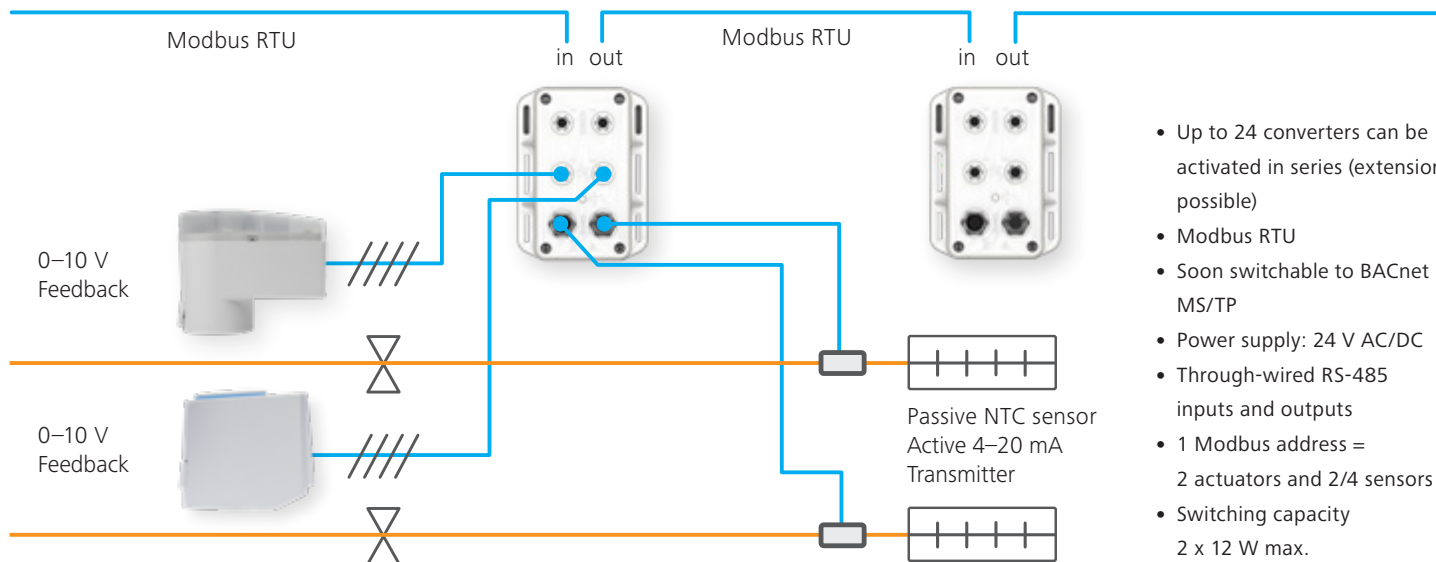
- Through-wiring of operating voltage and serial data bus in slave mode

Details

- Through-wired RS-485 inputs and outputs
- DIP switch to adjust the Modbus address (1 to 247)
- 4 sensor inputs, passive 2 x 22k NTC thermistors and 2 x 4–20 mA transmitters
- 2 connections for valve actuators (thermal 2-point, motorised 2-/3-point or thermal and motorised continuous actuators 0–10 V, with and without feedback signal)
- M12-A-coded and M8 connectors
- Automatic baud rate detection or fixed setting
- Multi-colour LED all-round function indicator

Valuable benefits

Compact, flexible, reliable



Compatible Möhlenhoff actuators

| Description of item | Type |
|--|-------------------------|
| Thermal actuator 24 V 0–10 V with feedback, ≤ 125 N, ≤ 6.5 mm | APO 4x625-00N |
| Thermal actuator 24 V 0–10 V, ≤ 125 N, ≤ 6.5 mm | APx 4xxx5-00N |
| Thermal actuator 24 V ≤ 125 N, ≤ 6.5 mm | Axx 4xxx5 |
| Motoric actuator 24 V 0–10 V with valve path recognition and feedback, ≤ 200 N, 8.5 mm | MPO(F) 468x5-xxN |
| Motoric actuator 24 V 0–10 V with valve path recognition and feedback, ≤ 200 N, 8.5 mm | MPO(F) 468x5-xxN |
| Motoric actuator 24 V 0–10 V, ≤ 200 N, 8.5 mm | MPO(F) 468x5-xxN |
| Motoric actuator 24 V in 2-/3-point mode ≤ 200 N, 8.5 mm | M3P 468x5-x0N |

Accessories OEM Modbus RTU Converter

| Description of item | Type |
|---|----------------------|
| Power supply cable Modbus converter, 5-pin, 3,000 mm of open cable ends, with an M12-A jack | ESL 5-300-1M |
| Bus cable, 5-pin, 3,000 mm, with M12-A connector and M12-A jack | ESL 5-300-2M |
| Connection cable for valve actuator, 4-pin, 1,000 mm, halogen-free with an M8 connector | ASL 4-100-1HM |
| Connection cable for valve actuator, 4-pin, 1,000 mm, halogen-free with an M8 connector | ASL 4-300-1HM |
| Connection cable for valve actuator, 4-pin 5,000 mm, halogen-free with an M8 connector | ASL 4-500-1HM |
| Connection cable for valve actuator, 2-pin 1,000 mm, halogen-free with an M8 connector | ASL 2-100-1HM |
| Connection cable for valve actuator, 2-pin 3,000 mm, halogen-free with an M8 connector | ASL 2-300-1HM |
| Connection cable for valve actuator, 2-pin 5,000 mm, halogen-free with an M8 connector | ASL 2-500-1HM |
| Passive die-cast NTC 22k transistor, 3,000 mm lead with an M8 connector | ES 1000 M |

In-depth product support



Our product and service offering

Providing application-driven advice and technical support for our products and systems are part of the services we deliver to our OEM customers. We also offer in-depth product information to assist in providing customised technical literature and advertising materials.

Quality guarantee

Möhlenhoff has recognised testing, inspection and simulation devices that make our high level of quality and innovation possible. We underpin this high standard by providing a modern integrated management system. We also ensure our staff have a strong focus on quality and the environment.

Guaranteed protection from overvoltage

All Möhlenhoff products are tested and certified by independent institutes. Due to its excellent quality and safety standards, Möhlenhoff guarantees that the OEM actuators are protected from customary surges in the power supply.



Innovative technology for reliable, compatible and excellent products



Your OEM partner

Möhlenhoff GmbH has been a well-known name on the international market for more than 30 years. Reliability, expertise, top OEM quality, innovative ideas and a principle of fairness vis à vis our customers have made the company very successful the world over for years. As an OEM Möhlenhoff GmbH supplies products and turnkey systems for heating, ventilation and air-conditioning equipment. Specialising in control components and systems, the company offers its expertise to machinery and equipment producers all over the world. Möhlenhoff GmbH is a global market leader of thermal valve actuators.



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