

Basiox Controls

M-Bus250 – RS232/Ethernet Converter

Model: BC-MBUS250-CON



1. Product Description

The Basiox Controls M-Bus250 – RS232/Ethernet Converter is designed for use in centralized data acquisition systems via a standard M-Bus line. It establishes a transparent communication channel between a PC and the M-Bus network using either RS-232 or Ethernet (TCP/UDP) interfaces.

M-Bus Network

Connects up to 250 M-Bus slave devices in a centralized system.

Dual Interface

Supports both RS-232 and Ethernet (TCP/UDP) connections.

Transparent Communication

Enables seamless data flow between the PC and connected devices.

2. Product Identification

Product Name	Basiox Controls M-Bus250 – RS232/Ethernet Converter
Model	BC-MBUS250-CON
Category	M-Bus Protocol Converter / Gateway
Interfaces	RS-232, Ethernet (TCP/UDP), M-Bus
M-Bus Slave Capacity	Up to 250 devices
Mounting	DIN rail-mountable enclosure
Protection Rating	IP20

3. Technical Specifications & Operating Conditions

Parameter	Specification
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Rated Supply Voltage	24 V $\pm$ 20%
Max Current Consumption	1.2 A
M-Bus Slave Capacity	Up to 250 devices
M-Bus Communication Speed	300 – 9600 bps
Ethernet Protocols Supported	TCP, UDP
Operating Temperature	–20 °C to +70 °C
Relative Humidity	30% – 85% (non-condensing)
Atmospheric Pressure	70 – 106.7 kPa (537–800 mm Hg)
Enclosure Protection Rating	IP20
Dimensions (L×W×H)	104.0 × 96.2 × 58.2 mm
Weight	≤ 0.4 kg
Service Life	≥ 12 years

4. Device Design & LED Indicators

The converter is housed in a DIN rail-mountable plastic enclosure. Refer to the dimensional drawing for interface layout.

LED Indicators:

- TX (LED 1) – Data transmission
- Power (LED 2) – Power status
- RX (LED 3) – Data reception

⚠ Important Safety Information — Operation is prohibited in case of device malfunction.

DIN Rail Mounting

Easy installation on standard DIN rails in control cabinets.

Status Indicators

Three LEDs provide clear visual feedback on device operation.

Durable Enclosure

Robust plastic housing with IP20 protection rating.

5. Safety Information

⚠ Important Safety Information — Intended for use in explosion-safe environments without corrosive vapors or gases.

Explosion-Safe Environment

Corrosion Prevention

Proper Ventilation

Device must be installed in areas free from explosive hazards.

Avoid environments with corrosive vapors or gases that could damage the equipment.

Ensure adequate airflow around the device during operation.

6. Configuration

Configuration details are provided in the full user manual available at www.basioxcontrols.uk

1. Press and hold the reset button

Locate the reset button as shown in the dimensional drawing.

2. Apply power to the device

Connect the power supply while continuing to hold the button.

3. Wait 5 seconds

Maintain pressure on the reset button for the full duration.

4. Release the button

The device will now be reset to factory settings.

7. Delivery Contents

No.	Item	Qty
1	M-Bus250 – RS232/Ethernet Converter	1
2	Power Supply Unit (IP24-60)	1
3	User Manual	1

M-Bus250 Converter

The main device with all necessary interfaces for M-Bus network connection.

Power Supply Unit

IP24-60 power supply designed specifically for the M-Bus250 converter.

User Manual

Comprehensive documentation with installation and configuration instructions.

8. Maintenance

Maintenance must be performed by trained personnel. Routine inspections every 6 months are recommended to check:

Mounting Reliability

Ensure the device remains securely attached to the DIN rail and all mounting hardware is tight.

Cable Integrity

Inspect all connected cables for signs of wear, damage, or loose connections.

Visible Signs of Damage

Check for physical damage to the enclosure and verify all LED indicators are functioning properly.

Regular maintenance helps ensure the long service life of 12+ years specified in the technical specifications.

9. Storage, Transport & Disposal

Parameter	Range
Storage Temperature	-25 °C to +55 °C
Max Humidity	≤ 95% RH
Min Atmospheric Pressure	≥ 61.33 kPa (460 mm Hg)

Transport in original packaging via covered transport only. Avoid direct contact with water, dust, and sharp impact during handling.

Storage Conditions

Store in a clean, dry environment within the specified temperature and humidity ranges.

Transport Requirements

Always use original packaging and ensure protection from environmental elements during shipping.

Handling Precautions

Handle with care to prevent physical damage from impacts, water exposure, or dust contamination.

10. Warranty

3 Year Warranty

Valid under conditions of correct usage, installation, transport, and storage.

1. Warranty Coverage	Covers manufacturing defects and component failures under normal operating conditions.
2. Warranty Limitations	Warranty is void if the manual is not followed, or the product is mishandled or tampered with.
3. Service Requirements	Warranty service is available only with the original manual and complete unit.

11. Support Contact

Email Support

Contact our technical team for prompt assistance with any questions or issues.

Online Resources

Visit our website for manuals, software updates, and technical documentation.

Technical Service

Professional support throughout the entire 12+ year service life of your device.

Basiox Controls

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