



- Smart Grid & IoT Communications & Protocols
- Smart Grid I/O Extensions
- Smart Grid Metering
- Smart Grid Power Quality / Fault Detection
- Smart Grid Security & crypto anchoring
- Smart Grid Artificial Intelligence & Machine Learning





The M4 System is a communication RTU/Gateway for monitoring and controlling equipment in electrical energy distribution systems. It acts as an interface for submodules that offer electrical measurements, power quality monitoring, directional fault detection, fault recording etc. Reduced digital and analog I/O's for system automation are integrated (DinBox version).

The M4 System is a micro RTU tailored for all-in solutions, offering mobile communication (LTE Cat. 1 GPRS ...), security (TLS, VPN IPsec), protocolling (IEC 60870-5-104 MODBUS RTU, MODBUS TCP, MQTT), routing, I/O extensions. It offers DINrail or industrial housing and comes optionally with a management DMSW (Data Management Software).



RITTER

TECHNOLOGIE

### Product Codes:

InduBox RTU M4: IB\_RTU\_M4 DinBox RTU M4: DB\_RTU\_M4 DinBox RTU IoT M4: DB\_RTU\_IoT\_M4

#### Main Features:

IEC 60870-5-104 Slave (6 Masters possible) Modbus RTU + Modbus TCP TLS or VPN IPsec (Optional) MQTT LTE Cat.1 & GPRS module

# **BAUSCH DATACOM**

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The Q7 System is the big brother of the M4 platform. It is not only deployable in MV/LV (10KV to 230V) substations but also for MV substations for RMU and switching controlling. Due to the container software approach new applications can be integrated such as Crypto Anchoring, Machine learning etc.

The Q7 System is a full RTU tailored for core RTU functions, offering mobile communication (LTE Cat. 1 GPRS ...), security (TLS, VPN IPsec), protocolling (IEC 61850 IEC 60870-5-104 MODBUS RTU, MODBUS TCP, MQTT), routing, I/O and Power Quality Fault Passage extensions. It offers DINrail housing and comes optionally with a management DMSW (Data Management Software).



RITTER

TECHNOLOGIE

#### **Product Codes:**

DinBox RTU Q7: DB\_RTU\_Q7 (Q4 2021) DinBox I/O: DinBox\_IO (Q4 2021) DinBox FPI PQ: DB\_FPI\_PQ (Q1 2022)

#### Main Features:

IEC 61850 non-Goose IEC 60870-5-104 Slave (6 Masters possible) Modbus RTU + Modbus TCP TLS or VPN IPsec (optional) MQTT LTE Cat.1 & GPRS module Remote I/O (Optional) TACOON

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The DMSW Back Office Tool (Data Software) modular Management is а management system designed to be integrated into existing management systems. It offers mass firmware upload, remote config, automatic commissioning, health check and many other features. Through container techniques customer related functionality can be easily integrated.

Configuration and management is done using a file-based management concept. Firmwares, containers, and configurations are created using File Upload and Plugin Mechanisms and uploaded to the DMSW. In addition to the management system, the DMSW system has monitoring functionalities that can be monitored via the open source application Grafana.



RITTER

TECHNOLOGIE

Product Codes:

Data Management Software: DMSW\_V1.0

### Main Features:

Telegraf Agent Server for collecting and reporting Grafana InfluxDB (Time-Series Database for Metrics) Node-Red Container Technology (Docker) Supports all 'M4' and 'Q7' and third party products

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