DM100 Series RTU
(Remote Terminal Unit)

Compact Control Unit for
Energy SCADA Systems

▶ Overview

"Meet DM100 with its Powerful & Industrial Communication Library"

DM100 series RTU (Remote Terminal Unit) products have the following communication libraries, which are preferred in distributed SCADA systems.

- IEC60870-5-104
- IEC60870-5-103
- IEC60870-5-101
- DNP 3.0
- IEC61850
- MODBUS TCP/RTU
- IEC62056-21
- SNMP
- MQTT

"DM100 RTU for Smart Energy Management"

Increase the efficiency of your renewable energy plants by digitalizing them:

Solar Energy System automation is carried out with DM100 series RTU products. In this way, the efficiency of solar inverters can be constantly analyzed and preventive maintenance plans can be made.

Ensure continuity in energy quality with energy automation:

DM100 series RTU products offer effective solutions for LV (Low Voltage), MV (Medium Voltage) or HV (High Voltage) energy automation needs for transformers or distribution centers. Communication with power protection or feeder protection relays can be achieved with the IEC61850 protocol. The collected data can be sent to SCADA systems via communication protocols such as IEC60870-5 or DNP3.

Get an integrated solution for your telemetry & automation needs with PLC programming feature:

With the integrated PLC programming editor, we offer a compact solution for your telemetry and automation needs. You can program according to your automation needs with the FBD programming language in IEC61131-3 standards.

▶ General Features

"Innovative Features for Integration"

- Use of communication protocol without license requirement
- Free PLC programming editor
- Integrated SCADA software
- Communication via RestAPI
- Direct communication with cloud-based systems via MQTT
- Direct communication with electricity meters with IEC62056-21 standard

"The Power of Performance with DM100"

- I/O expansion up to 512 points
- Data logging feature with integrated SD card
- Ability to record 10,000 events
- Log recording feature of communication traffic via web interface
- Lighting automation with DALI modules

▶ Application Example

- Electrical Distribution Systems SCADA System
- Utilities Datalogger and Maximum Demand Controller
- Solar Power Plant Control System
- Solar Farms Preventive Maintenance Automation
- Solar RoofTop Zero Export Controller and Datalogger
- Geothermal Energy SCADA and Automation Systems
- Wind Power Plant Automation and SCADA Systems
- HEPP (Hydroelectric Power Plant) Energy Automation
- Oil and Natural Gas Transmission Line SCADA System

▶ Advantages

"Increase Efficiency with DM100 RTU"

- It helps you reduce your operational costs by preventing data loss by exchanging time-tagged data.
- Monitor your systems with the event recording feature in case of connection loss.

"Maximize ROI: Reduce carbon footprint with DM100"

- It helps prevent possible malfunctions by being used in the preventive maintenance system of renewable energy plants.
- Ensures that systems remain at maximum efficiency by constantly monitoring inverter status, meteorological conditions and different diagnostic data in renewable energy plants.

▶ Support & Services:

"Your Success is Our Priority: As Mikrodev, Support Commitment directly from the manufacturer"

- 5-year manufacturer's warranty against production-related problems
- 10 years spare parts and technical service warranty
- Free technical help desk

▶ Technical Features

GENERAL INFORMATION	DM100-E1N	DM100-E2N
Dimensions(mm)	112,90x41,94 mm / 112,90x92,81 mm	
Weight(Only CPU)	186 gr	192 gr
Expansion Modules	Up to 512 I/O, with XIO110 Modules	
Programming	IEC61131-3 FBD, programming via ETHERNET or USB	

ELECTRICAL & AMBIENT CONDITIONS		
Operating Temperature	-25 … +75 ºC	
Storage Temperature	-30 … +80 ºC	
Mechanical IP Rating	IP20	
Operating Altitude	No temperature loss up to 0... 2000 m Temperature loss with elevation: 2000... 5000 m (0.5 K / 100 m) Maximum elevation: 5000 m	
Relative Humidity (Non-Condensing)	5%...95%	
Mounting Type	DIN-35 Rail	
Vibration	EN 60068-2-27, Half-Sine Mechanical Shock Test 30g/11ms EN 60068-2-6, Sinusoidal Vibration Test / 3 Eksen, 5g	
Electrostatic Discharge	EN 61000-4-2, 8kV air, 6kV Contact	
Electrical Burst Immunity	EN 61000-4-4, 5kHz, 0,5kV	
Electrical Surge Immunity	EN 61000-4-5, 1.2/50us(8/20us), 1Kv with 30cm cable	
RF Immunity	EN 61000-4-6, EN 55032 Criteria A	

INDUSTRIAL COMMUNICATION		
Ethernet Port	1 x 10/100 Mbps	2 x 10/100 Mbps
Serial Port	1xRS232, 2xRS485	1xRS232, 2xRS485 or 2xRS485
Event Logging	20.000 Event	
Communication (Master)	MODBUS, DNP3, IEC62056-21, IEC60870-5-103, IEC61850(MMS Client)	
Communication(Slave)	MODBUS, DNP3, IEC60870-5-101, IEC60870-5-104	
IP Protocols	TCP, UDP, NTP, SNTP, HTTP, TFTP, DHCP, DNS, SNMP, TLS(1.2)	