

1	Ethernet Ports
2	USB Port
3	System Power LED
4	System Running LED
5	System Error LED
6	System Connection Status LED
7	RS485 Port 1 Data Transfer LED
8	RS485 Port 2 Data Transfer LED
9	SD Card Slot
10	RS485 Port 1 Connections
11	RS485 Port 1 GND Connections
12	RS485 Port 2 Connections
13	RS485 Port 2 GND Connections
14	Expansion Connector
15	Device Power (V+/V-) Connection

Mikrodev RTU allows control, data collection and communication even in the most harsh environments.

## Features

<b>Communication Port</b>	Ethernet	2 Port, 10/100 Mbps
<b>Board Type</b>	RS485	2 Port, ESD Protection
	RS485 ESD Protection	18 kV Contact Direct/ 25 kV Air
<b>Options</b>	Power Supply	24 V DC
	SD Card Support	Micro SD Card
	Programmable Data Logging Trigger Functions	Yes
	Serial Port Isolation	Yes

<b>Product Features</b>	IEC 61131-3 Standard Instructions	Yes
	Real-time Monitoring/Controlling of Process Data	Yes
	Real-time Monitoring of Process Data via WEB Server	Yes
	Offline Simulation	Yes
	Programming with USB Cable	Yes
	Upload/Download Programs over TCP/IP	Yes
	Remote Firmware Upgrade	Yes
	Software Protection with Password Definition	Yes
	IP Filtering Feature	Yes
	IoT Facility	Yes
	MODBUS Gateway Mode	Yes
	Hot Stand by Redundant CPU	Yes
	Integrated SCADA	Yes
	Redundant Communication Ports	Yes
	Programmable Data Logging	Yes
	Axis Control Blocks Library	Yes
	PID and ON-OFF Control Blocks Library	Yes
	Math Floating Points Blocks Library	Yes
	HVAC Control Systems Blocks Library	Yes
	Astronomical Timer Blocks Library	Yes
Creating Custom Macro Blocks	Yes	
<b>Programming</b>	Programming Editor	Telediagram Software
	Programming Language	Function Block Diagram(FBD), Ladder
	USB	1 Port, Mini USB Type B

<b>Communication Protocols</b>	Master Communication Protocols	MODBUS, DNP3, IEC62056-21, IEC60870-5-103, IEC61850(MMS Client)
	Slave Communication Protocols	MODBUS, DNP3, IEC60870-5-101, IEC60870-5-104
	Mikrodev Specific	DEVNET (UDP Based Data Exchange Protocol)
	IoT Protocol	MQTT
	IP Protocols	TCP, UDP, NTP, SNTP, HTTP, TFTP, DHCP, DNS, SNMP, TLS(1.2)
	Lighting Control	DALI
	RESTful API	Yes
	Web Server	Yes
<b>IO Expansion Capability</b>	Compatible Expansion Capability	XIO110 Series
	Total I/O	Up to 512 Points
<b>Maximum Connection Count</b>	Number of Server Socket	16
	Number of Client Socket	32
	Number of Client Sockets per TCP Server Socket	16
<b>Retentivity/Event Log</b>	Protecting the Last Values of Process Data in case of Power Cut	Yes
	Retentive Memory Capacity	128 Block/Register Type
	Event Log with Time Tag	Yes
	Event Log Time Resolution	1 ms
<b>Real Time Clock and Calendar</b>	Real Time Clock	Integrated
	NTP Client Support	Yes
	Time Synchronization via MODBUS	Yes
	Battery Status/Level Reading Functions	Yes
	RTC Battery	CR2032 Lithium, Battery Life: 3 Years

<b>LED Signals</b>	Power	1 LED Green
	Running Status	1 LED Green
	Connection	1 LED Blue
	Warning/Error	1 LED Red
	Serial Communication	2 LED Blue
<b>Environmental Conditions</b>	Operating Temperature	-25 / +75 C
	Storing Temperature	-30 / +80 C
	Humidity	5..95 RH
	Protection Standard	IP20
	Operating Altitude	0..2000 m
<b>Electrical Wiring</b>	Serial Ports	Demountable Terminal Block with Screw, (pitch 3.81 mm)
	Power Supply Input	Demountable Terminal Block with Screw, (pitch 3.81 mm)
<b>Standards/Warranty</b>	IEC 61000-4-2	6 kV Direct, 8 kV Air Discharge
	IEC 61000-4-5	Surge Immunity (1 kV DC between V+ and V- (1.2/50µs))
	IEC 61000-4-6	RF Field Influence 10 Vrms (150 kHz - 80 MHz)
	IEC 61000-4-18	2.5 kV (400/s Repetition with 1 MHz Electronic Wave)
	Warranty Duration	24 Months
	Certificates	CE

## Applications

### Building Automation

HVAC Systems Blocks Library

Timer Blocks

### Process Automation

Maximum 512 I/O Points

Communication Protocol Supporting Master and Slave Mode

Simultaneous Multi-Socket Connection

### Temperature Control Applications

PID and Auto-tuning Functionality

Hysteresis and ON/OFF Control with Time Counter

Analog (Float) Math Operations

### Lighting Automation

Real Time Clock and Calendar Blocks

Astronomical Timer Relay

DALI Protocol Support

### Machine Automation

Aging Control Blocks

Axis Control Bloks

### Telemetry

Master Protocols: MODBUS RTU, MODBUS TCP, DNP3, IEC60870-5-103

Slave Protocols: MODBUS RTU, MODBUS TCP, DNP3, IEC60870-5-101, IEC60870-5-104

MODBUS Gateway Mode

### IoT Applications

MQTT Protocol Support

### Energy Automation

IEC62056-21 Protocol Support

IEC61850(MMS Client) Protocol Support

### Data Logger Applications




Micro SD Card Supporting

Programmable Logging Blocks

NTP, TFTP Supporting

## Downloads

### Documents

<a href="#">Hardware Manual</a>	
<a href="#">Software Manual</a>	
<a href="#">Ordering Information</a>	

### Software

<a href="#">Telediagram Software (Requires Licence)</a>	
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### Brochures

<a href="#">Smart Solutions For The Energy</a>	
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