

PRELIMINARY DATASHEET



Technical Specification

Display specifications

Type	LCD with blue backlight & black font	7 Segment LED
Digits	2 lines x 8 characters (Font side 5x7mm)	1 Red
LED banks	---	6 Red LED
No. of keys	5 keys (4 User configurable)	1 key
No. of slots	4	

Input specifications

Digital input	
No. of inputs	4*+1
Input type	PNP
Input voltage range	5-30V
Response time	Depends on debounce time & ladder execution time
Debounce time	10ms
Fast input	
No. of inputs	1
Input type	PNP
Input frequency	5 kHz
Analog inputs	
No. of channels	1
Analog type	Voltage
Range	0-10V
Resolution	12 bit
Conversion time	100ms
Accuracy	0.25%

* = 1 Digital input can be configured as analog input (0-10V)

Communication

Communication port	2 Ports ; Port 1 - RS485 slave, Port 2 - RS485 master
Communication protocol	MODBUS RTU
Connector type	2 Wire
Transmission type	Half duplex
Transmission speed	9600,19200, 38400, 57600, 115200 bps
Data bits	7 or 8
Parity	None, Odd, Even, Space, Mark
Stop bits	1 or 2

Features

- ◆ Modular PLC with pluggable / Independent display
- ◆ Flexible IO card selection
- ◆ Expandable via MODBUS Protocol
- ◆ RTC with time switch functions

Functional specifications

Programming	Windows based software for ladder programming & HMI config
Timer operational modes	On delay, Off delay, Pulse, Special (Up / Down) Timer
Timer resolution	1ms (Only accurate 1ms timer block)
Counter	Up counter, Down counter, Up-Down counter, Special (Up-Down counter)
Other blocks	Analog input / output, Time switch, RTC etc
Memory retention	10 Years
RTC	Yes
Memory	
Data memory	32Kb
Code memory	240Kb
EEPROM	8Kb
No. of objects	5000
Min. scan time	200usec
Typical scan time	1msec (Based on ladder programming)

Environmental specifications

Operating temperature	5 to 55°C
Storage temperature	-25 to 70°C
Humidity (Non condensing)	10 to 95%

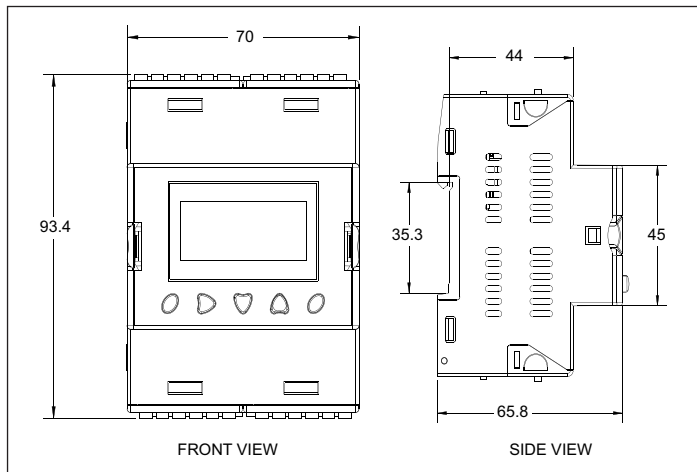
Mechanical specifications

Mounting type	Rail mount
Weight	150 gms without IO cards

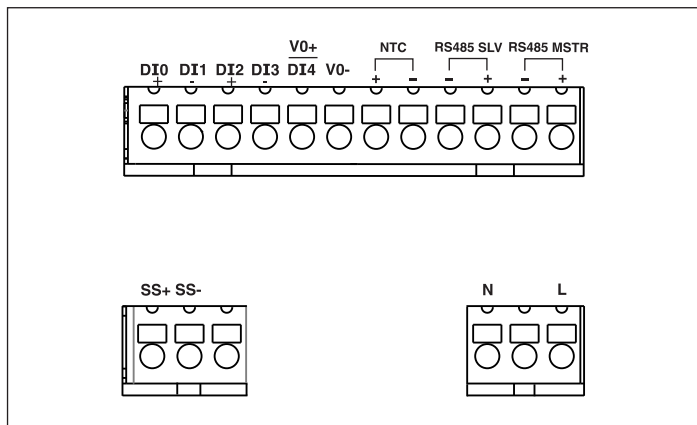
Supply specification

Supply voltage	90 to 270VAC (50/60Hz)
Power consumption	6VA
Sensor source	24V, 50mA

Dimensions (All are in mm)



Terminal connection



Ordering information

Product code	Description	Certification
MIBRX-4M-1-1-1-230V	230V Power supply with master communication & RTC	CE
MIBRX-4M-1-0-0-230V	230V Power supply without master communication & RTC	CE

Supported display modules

Display module	Description	Certification
MIBRX-DSP-4M-0-1-06-A	Integrated blind display for MIBRX 4M; Single digit 7seg, 6 LEDs for indication & 1 key	CE
MIBRX-DSP-4M-8-2-08-A	Integrated 8x2 character LCD Display with 5 keys for MIBRX 4M	CE

Supported I/O cards

I/O cards	Description	Certification
MIBRX-SC-DI04	4-Digital inputs card	CE
MIBRX-SC-DI06	6-Digital inputs card	CE
MiBRX-SC-RO03	3-Channel relay output card	CE
MiBRX-SC-RO04	4-Channel relay output card	CE
MiBRX-SC-TO04	4-Channel transistor output card	CE
MIBRX-SC-DI02-RO02	2-Digital input + 2-Channel relay output card	CE
MIBRX-SC-DI02-TO02	2-Digital input + 2-Channel transistor output card	CE
MiBRX-SC-AI02-I	2-Channel analog input card - Current	CE
MiBRX-SC-AI02-V	2-Channel analog input card - Voltage	CE
MIBRX-SC-AI02-V/I	2-Channel analog input card - Voltage/Current	CE
MIBRX-SC-AI02-NTC	2-Channel analog input card - NTC	CE
MIBRX-SC-AI02-PTC	2-Channel analog input card - PTC	CE
MiBRX-SC-AI02-TC	2-Channel analog input card - Thermocouple	CE
MiBRX-SC-AI02-RTD	2-Channel analog input card - RTD	CE
MIBRX-SC-AI02-PT1000	2-Channel analog input card - PT1000	CE
MiBRX-SC-AO01-V/I	1-Channel analog output card - Voltage/Current	CE
MIBRX-SC-FI02	2-Channel fast input card	CE
MIBRX-SC-FO02	2-Channel fast output card	CE
MiBRX-SC-LC02	2-Channel loadcell input card	CE
MIBRX-SC-DL	Datalogging card	CE

Accessories

Accessories for communication

- AC-USB-RS485-03 (USB to 6 pin RJ25 jack)
- AC-USB-RS485-02 (USB to 2 pin open wire)
- AC-IOEXP-03 (Port expansion adapter)

Power supply module

- SMPS - RP-2M-1.1A-24VDC-CE-RoHS

Window - Based software for ladder programming

- ACD-005

Relay module

- 1) RLYMD-1-S4-1CO-24VDC : 4 Channel 1 change over relay module
- 2) RLYMD-1-S4-2CO-24VDC : 4 Channel 2 change over relay module
- 3) RLYMD-2-S8-1CO-24VDC : 8 Channel 1 change over relay module
- 4) RLYMD-2-S8-2CO-24VDC : 8 Channel 2 change over relay module
- 5) ERLYMD-2-1-S8-1CO-24VDC : 8 Channel 1 change over communication based relay module