



## Technical Specification

### Display specifications

|             |                                              |
|-------------|----------------------------------------------|
| Type        | LCD with Yellow-green backlight & black font |
| Digits      | 2 lines x 8 characters (Font size 5x7mm)     |
| No. of keys | 6 keys (5 User configurable)                 |

|                             | MiBRX-6M-1-X-X-230V    | MiBRX-6M-X-1-X-X-24VDC |
|-----------------------------|------------------------|------------------------|
| <b>Supply specification</b> |                        |                        |
| Supply voltage              | 90 to 270VAC (50/60Hz) | 18 to 30VDC            |
| Sensor source               | 24V, 50mA              | NA                     |
| NTC                         | Yes                    |                        |
| No. of slots                | 6                      |                        |

### Input Specifications

| <b>Digital input</b> |                                                  |    |
|----------------------|--------------------------------------------------|----|
| No. of inputs        | 10+1*                                            | 12 |
| Input type           | PNP                                              |    |
| Input voltage range  | 5-30V                                            |    |
| Response time        | Depends on debounce time & ladder execution time |    |
| Debounce time        | 10ms                                             |    |
| <b>Fast input</b>    |                                                  |    |
| No. of inputs        | 1                                                | 2  |
| Input type           | PNP                                              |    |
| Input frequency      | 5 kHz                                            |    |
| <b>Analog inputs</b> |                                                  |    |
| 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)

### Output specifications

| <b>Digital output</b> |                 |   |
|-----------------------|-----------------|---|
| No. of outputs        | 4               | - |
| Contact rating        | 5A 250VAC/30VDC | - |
| Response time         | 10ms            | - |
| Mechanical life       | 20000000 cycles | - |
| Contact-Isolation     | Yes             | - |

## Features

- ◆ Modular PLC with pluggable display
- ◆ Flexible IO card selection
- ◆ Expandable via MODBUS Protocol
- ◆ RTC with time switch functions
- ◆ Ethernet slave communication (Optional)
- ◆ CAN communication (Optional)
- ◆ Data logging



### Communication

| Communication port     | Port 1 - RS485 Slave, Port 2 - RS485 Master | Port 1 - RS485 Slave<br>Port 2 - RS485 Master<br>Port 3 - ETHERNET Slave*<br>Port 4 - CAN*, Port 5 - USB* |
|------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Communication protocol | RS485 - MODBUS RTU                          | RS485 - MODBUS RTU<br>ETHERNET - MODBUS RTU/TCP<br>CAN - Proprietary CAN<br>USB - USB 2.0                 |
| Connector type         | RS485 - 2 Wire                              | RS485 / CAN - 2 Wire<br>ETHERNET - RJ45, USB - Micro B                                                    |
| <b>MODBUS Details</b>  |                                             |                                                                                                           |
| 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                                      |                                                                                                           |

\* = Optional as per selected variant

### 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 (Optional)                                                       |        |
| <b>Memory</b>           |                                                                      |        |
| Data memory             | 1 MB                                                                 |        |
| Code memory             | 240 KB                                                               | 480 KB |
| EPROM                   | 4 KB                                                                 |        |
| No. of objects          | 5000                                                                 |        |
| Min. scan time          | 200usec                                                              |        |
| Typical scan time       | 1msec (Based on ladder programming)                                  |        |

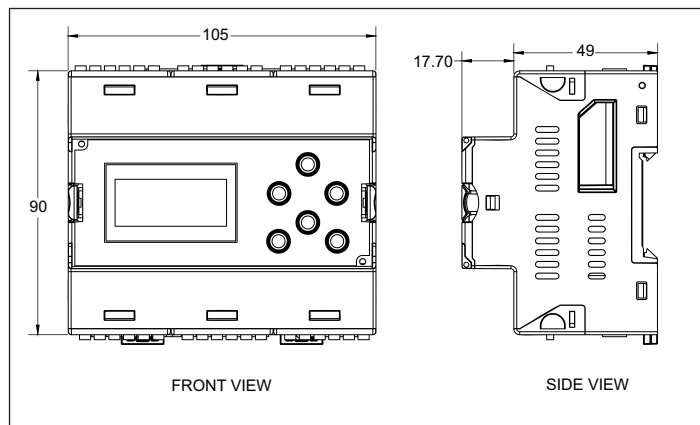
### Environmental specifications

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

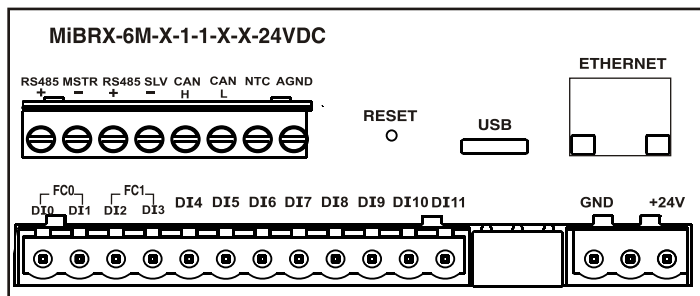
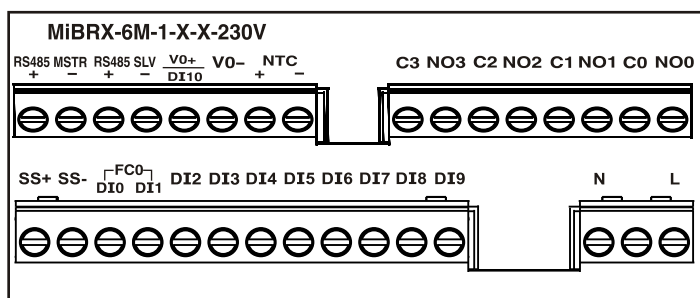
### Mechanical specifications

|               |                          |                          |
|---------------|--------------------------|--------------------------|
| Mounting type | Rail mount               |                          |
| Weight        | 270 gms without IO cards | 250 gms without IO cards |

### Dimensions (All are in mm)



### Terminal connection



### Ordering information

| Product code             | Description                                                  | Certification |
|--------------------------|--------------------------------------------------------------|---------------|
| MiBRX-6M-1-1-1-230V      | 230V Power supply with master communication & RTC            | CE RoHS       |
| MiBRX-6M-1-0-0-230V      | 230V Power supply without Master & RTC                       | CE RoHS       |
| MiBRX-6M-1-1-1-0-0-24VDC | 24V Power supply with Master & RTC                           | CE RoHS       |
| MiBRX-6M-2-1-1-1-1-24VDC | 24V Power supply with Isolation, Master, ETHERNET, CAN & RTC | CE RoHS       |
| MiBRX-6M-2-1-1-1-0-24VDC | 24V Power supply with Isolation, Master, CAN & RTC           | CE RoHS       |
| MiBRX-6M-2-1-1-0-0-24VDC | 24V Power supply with Isolation, Master & RTC                | CE RoHS       |
| MiBRX-6M-2-1-1-0-1-24VDC | 24V Power supply with Isolation, Master, ETHERNET & RTC      | CE RoHS       |

### Supported display modules

| Display module        | Description                                                   | Certification |
|-----------------------|---------------------------------------------------------------|---------------|
| MiBRX-DSP-6M-8-2-08-A | Integrated 8x2 character LCD Display with 6 keys for MIBRX 6M | CE RoHS       |

### Independent display modules

| Display module            | Description                                                                 | Certification |
|---------------------------|-----------------------------------------------------------------------------|---------------|
| MiBRX-DSP-6M-AP           | MIBRX 6M Adapter Plate                                                      | CE RoHS       |
| MiBRX-DSP-IND-96-8-4-16-B | Independent 16x4 character LCD Display with 8 keys for MIBRX 6M             | CE RoHS       |
| MiBRX-DSP-IND-96-8-2-16-B | Independent 16x2 character LCD Display with 8 keys                          | CE RoHS       |
| MiBRX-DSP-IND-96-8-0-00-B | Independent Customized, 14& 7 segments, Bar Graphs, Speedometer with 5 keys | CE RoHS       |

### Supported I/O cards

| I/O cards            | Description                                              | Certification |
|----------------------|----------------------------------------------------------|---------------|
| MIBRX-SC-DI04        | 4-Digital inputs card                                    | CE RoHS       |
| MIBRX-SC-DI06        | 6-Digital inputs card                                    | CE RoHS       |
| MIBRX-SC-RO03        | 3-Channel relay output card                              | CE RoHS       |
| MIBRX-SC-RO04        | 4-Channel relay output card                              | CE RoHS       |
| MIBRX-SC-TO04        | 4-Channel transistor output card                         | CE RoHS       |
| MIBRX-SC-DI02-RO02   | 2-Digital input + 2-Channel relay output card            | CE RoHS       |
| MIBRX-SC-DI02-TO02   | 2-Digital input + 2-Channel transistor output card       | CE RoHS       |
| MIBRX-SC-AI02-I      | 2-Channel analog input card - Current                    | CE RoHS       |
| MIBRX-SC-AI02-V      | 2-Channel analog input card - Voltage                    | CE RoHS       |
| MIBRX-SC-AI02-V-I    | 2-Channel analog input card - 1 Voltage & 1 Current      | CE RoHS       |
| MIBRX-SC-AI02-NTC    | 2-Channel analog input card - NTC                        | CE RoHS       |
| MIBRX-SC-AI02-PTC    | 2-Channel analog input card - PTC                        | CE RoHS       |
| MIBRX-SC-AI02-TC     | 2-Channel analog input card - Thermocouple               | CE RoHS       |
| MIBRX-SC-AI02-RTD    | 2-Channel analog input card - RTD                        | CE RoHS       |
| MIBRX-SC-AI02-PT1000 | 2-Channel analog input card - PT1000                     | CE RoHS       |
| MIBRX-SC-AO01-V/I    | 1-Channel analog output card - Voltage/Current           | CE RoHS       |
| MIBRX-SC-FI02        | 2-Channel fast input card                                | CE RoHS       |
| MIBRX-SC-FO01-TO01   | 1-Channel fast output + 1-Channel transistor output card | CE RoHS       |
| MIBRX-SC-LC02        | 2-Channel loadcell input card                            | CE RoHS       |
| MIBRX-SC-DL          | Data logging Card                                        | CE RoHS       |

### Accessories

| Accessories for communication                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------|
| AC-USB-RS485-02 (Program downloading cable - USB to 2 pin open wire)                                                        |
| ACH-004 (Expansion cable - RJ25 to RJ25)                                                                                    |
| Power Supplies                                                                                                              |
| RP-2M-1.1A-24VDC-CE-RoHS                                                                                                    |
| RPS60-24-CE-RoHS                                                                                                            |
| RPS120-24-CE-RoHS                                                                                                           |
| RPS240-24-CE-RoHS                                                                                                           |
| <b>Windows - Based software for ladder programming - <a href="http://www.selec.com/software">www.selec.com/software</a></b> |
| Relay modules                                                                                                               |
| 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                                       |