## BEFORE USE

Thank you for choosing M-System. Before use, please check contents of the package you received as outlined below. If you have any problems or questions with the product, please contact M-System's Sales Office or representatives.

## ■ PACKAGE INCLUDES:

Network interface module

## ■ MODEL NO.

Confirm Model No. marking on the product to be exactly what you ordered.

## ■ INSTRUCTION MANUAL

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

## ■GSD FILE

GSD files are downloadable at M-System's web site: http:// www.m-system.co.jp

## POINTS OF CAUTION

## ■CONFORMITY WITH EU DIRECTIVES

- The equipment must be mounted inside the instrument panel of a metal enclosure.
- The actual installation environments such as panel configurations, connected devices, connected wires, may affect the protection level of this unit when it is integrated in a panel system. The user may have to review the CE requirements in regard to the whole system and employ additional protective measures to ensure the CE conformity.


## - HOT INSERTION/REMOVAL OF MODULES

- It is possible to replace the module with the power is supplied. Be sure to replace it when the module is not communicating with a host, as it is possible to affect the system. However, replacing multiple modules at once may greatly change line voltage levels. We recommend that you replace them one by one.


## GENERAL PRECAUTIONS

- Do not set the DIP switch on the side panel while the power is supplied. The DIP switch is selectable for maintenance without the power.


## ENVIRONMENT

- Indoor use.
- When heavy dust or metal particles are present in the air, install the unit inside proper housing with sufficient ventilation.
- Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
- Environmental temperature must be within -10 to $+55^{\circ} \mathrm{C}$ ( 14 to $131^{\circ} \mathrm{F}$ ) with relative humidity within 30 to $90 \% \mathrm{RH}$ in order to ensure adequate life span and operation.


## ■ WIRING

- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

■ AND ....

- The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.


## INSTALLATION

Use the Base Model R6x-BSA or R6x-BSB.
Before mounting the Network Interface Module onto the Base, be sure to configure the module as explained below.

## ■ Station No.

## See "COMPONENT IDENTIFICATION."

Station No. is selectable from 00 to 7D via the front rotary switches. It is programmed to 7D if a larger number is set on the switches.

## ■ NETWORK SLOTS ONTHE BASE

Mount the Network Module to the dedicated slot on the base.

## - R6x-BSA

The I/O and the power (model: R6x-PF1) modules can be positioned freely on whichever among the slots 1 through 8. Set a module address to each I/O module.


- R6x-BSB

The power module (model: R6-PSM) should be located on the extreme left, the I/O modules can be positioned freely on whichever among the slots 1 through 8 . Set a module address to each I/O module.


## COMPONENT IDENTIFICATION



- PROFIBUS INTERFACE

| $9\left[\begin{array}{cc} \circ & 5 \\ \vdots & 0 \\ \vdots & 5 \\ \vdots & 1 \end{array}\right.$ | PIN NO. | SIGNAL | SIGNIFICANCE |
| :---: | :---: | :---: | :---: |
|  | 1 | NC | Not used |
|  | 2 | NC | Not used |
|  | 3 | B_ine | Network, B-line |
|  | 4 | RTS | RTS signal |
|  | 5 | GND | 0 V |
|  | 6 | P5V | 5 V |
|  | 7 | NC | Not used |
|  | 8 | A_line | Network, A-line |
|  | 9 | NC | Not used |

## ■FRONT ROTARY SW

- Station No.: SA1, SA2

Station No. is set in Hexadecimal.
(Setpoint adjustment: $00-7 \mathrm{D}$ )
■ INDICATOR LED

| ID | STATE | EXPLANATION |
| :--- | :--- | :--- |
| RUN | Green ON | Transmitting |
|  | Green blinking | Data hold |
|  | OFF | Communication error |
|  | Red ON | Hardware error |
| ERR | OFF | Normal operating <br> Transmitting |
|  | Green ON/ <br> blinking | I/O module error |
|  | Red ON | No master |
|  | Red blinking | Address error |

## PC CONFIGURATOR

With configurator software, settings shown below are available.
Refer to the software manual of R6CON for detailed operation.
INTERFACE MODULE SETTING

| PARAMETER | AVAILABLE RANGE | DEFAULT SETTING |
| :---: | :---: | :---: |
| Card map | 1 to 31 | 1 to 31 |

## TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

## ■EXTERNAL DIMENSIONS unit: mm (inch)



## ■CONNECTION DIAGRAM



## I/O DATA DESCRIPTIONS

## - 16-bit Analog Data

0 to $100 \%$ of the selected I/O range is converted into 0 to 10000 (binary).
With ${ }^{\circ} \mathrm{C}$ temperature unit, raw data is multiplied by 10 . For example, $25.5^{\circ} \mathrm{C}$ is converted into 255 .
With ${ }^{\circ} \mathrm{F}$ temperature unit, the integer section of raw data is directly converted into the data. For example, $135.4^{\circ} \mathrm{F}$ is converted into 135.
Negative values are represented in 2's complements.


## - Discrete Data



0 : OFF
1 : ON

