INSTRUCTION MANUAL

PROFIBUS-DP INTERFACE MODULE

(for 62-point analog signals)

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:

module(1)
$module \dots \dots (1)$

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°C (14 to 131°F) with relative humidity within 30 to 90% 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.



MODEL R6-NP1

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 ON THE 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

	PIN NO.	SIGNAL	SIGNIFICANCE
9 6) 5	1	NC	Not used
6 0 1	2	NC	Not used
	3	B_ine	Network, B-line
	4	RTS	RTS signal
	5	GND	0V
	6	P5V	$5\mathrm{V}$
	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 – 7D)

■ INDICATOR LED

ID	STATE	EXPLANATION	
	Green ON	Transmitting	
RUN	Green blinking	Data hold	
	OFF	Communication error	
	Red ON	Hardware error	
	OFF	Normal operating	
		Transmitting	
ERR	Green ON/	I/O modulo ormon	
	blinking	1/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 °C temperature unit, raw data is multiplied by 10. For example, 25.5 °C is converted into 255.

With $^{\circ}$ F temperature unit, the integer section of raw data is directly converted into the data. For example, 135.4 $^{\circ}$ F is converted into 135.

Negative values are represented in 2's complements.



Discrete Data



