HI-SPEED LINK SYSTEM I/O MODULE

(NPN discrete input & NPN transistor output, 16 points each, e-CON connector)

MODEL R7K4DH-1-DAC32C

BEFORE USE

Thank you for choosing us. 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 our sales office or representatives.

■ PACKAGE INCLUDES:

Discrete I/O module	.(1))
Surface mounter slider	.(2))

■ 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.

POINTS OF CAUTION

■ CONFORMITY WITH EU DIRECTIVE

- Use dual shielded cables (Shinko Seisen Industry Model ZHY262 PBA) for the network. If it is not sufficient, use a ferrite core (Kitagawa Industries Model GRFC-13) for the network cable.
- 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.

■ POWER INPUT RATING & OPERATIONAL RANGE

 Locate the power input rating marked on the product and confirm its operational range as indicated below:
 24V DC rating: 24V DC ±10%, approx. 95mA

■ GENERAL PRECAUTIONS

- Before you remove the unit or mount it, turn off the power supply, input signal and output signal for safety.
- DO NOT set the switches on the module while the power is supplied. The switches are used only 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.

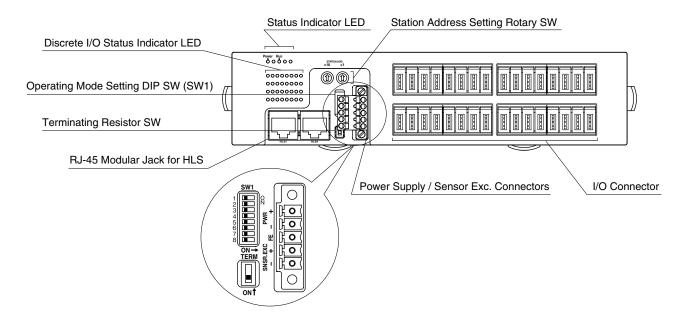
■ WIRING

- 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.

COMPONENT IDENTIFICATION



■ STATUS INDICATOR LED

ID	COLOR	FUNCTION
Power	Green	Turns on when the internal 5V is supplied normally.
Run	Green	Turns on when the refresh data is received normally.

■ DISCRETE I/O STATUS INDICATOR LED

LED red indicators shows the signal status.

ON: LED ON OFF: LED OFF

■ STATION ADDRESS

The left switch determines the sixteenths place digit, while the right switch does the ones place digit of the address. (Range: 01H to 3FH)



■ OPERATING MODE

(*) Factory setting

• Transfer rate (SW1-1, 1-2)

SW1-1	SW1-2	TRANSFER RATE
OFF	OFF	12Mbps (*)
ON	OFF	6Mbps
OFF	ON	3Mbps

• Output at the loss of communication (SW1-3)

SW1-3	OUTPUT AT THE LOSS OF COMMUNICATION
OFF	Hold the output (*)
	(maintains the last data received normally)
ON	Reset the output (turned off)

Note: Be sure to set unused SW1-4 through 1-8 to OFF.

■ TERMINATING RESISTOR

To use the terminating resistor, turn the switch ON, and OFF to invalidate. (Factory setting OFF)

■ POWER SUPPLY

Cable connector: TFMC1,5 / 5-STF-3,5

(Phoenix Contact) (included in the package)

Applicable wire size: 0.2 - 1.5 mm²; stripped length 10 mm

Recommended solderless terminal

AI0,25-10YE
 AI0,34-10TQ
 AI0,5-10WH
 AI0,75-10GY
 O.25 mm² (Phoenix Contact)
 O.5 mm² (Phoenix Contact)
 O.75 mm² (Phoenix Contact)

AIU, 75-10GY 0.75 mm² (Phoenix Contact)
 A1-10 1.0 mm² (Phoenix Contact)

• A1,5-10 1.5 mm² (Phoenix Contact)



PWR+ Power Supply
 PWR- Power Supply
 FE Functional earth
 SNSR.EXC+ Sensor excitation
 SNSR.EXC- Sensor excitation

Note: The numbers marked on the connector have no relationship to the pin number of the unit.

Wire according to the instruction manual of the unit.

■ NETWORK

Recommended cable connector: TM21P-88P (Hirose Electric) (not included in the package)

• Full-duplex communication



1. NC Unused 2. NC Unused

3. TXD+ Network (slave, transmission +) 4. TXD-Network (slave, transmission –) 5. RXD+ Network (master, transmission +) 6. RXD-Network (master, transmission -)

7. NC Unused 8. SLD Shield

• Half-duplex communication



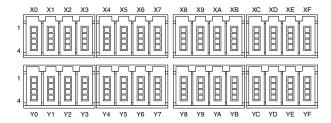
1. NC Unused 2. NC Unused 3. TR+ Network (+) 4. TR-Network (-) 5. NC Unused Unused 6. NC 7. NC Unused 8. SLD Shield

■ TERMINAL ASSIGNMENTS

• I/O Connection

Recommended cable connector: $37104-(\)-000FL\ (3M$ Company)

(The cable connector is not included in the package. Specify wire size instead of (); refer to the specifications of the product.)



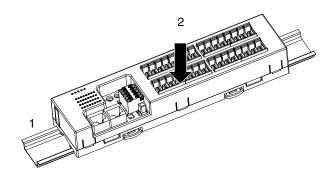
PII	NI.		I	PII	NI.		I
No		ID	FUNCTION	No		ID	FUNCTION
X0	1	+24V	24V DC	X8	1	+24V	24V DC
	2	NC	Unused		2	NC	Unused
	3	GND	0V		3	GND	0V
	4	X0	Input 0		4	X8	Input 8
X1	1	+24V	24V DC	X9	1	+24V	24V DC
	3	NC GND	Unused 0V		3	NC GND	Unused 0V
	$\frac{3}{4}$	X1	Input 1		$\frac{3}{4}$	X9	Input 9
X2	1	+24V	24V DC	XA	1	+24V	24V DC
	2	NC	Unused		2	NC	Unused
	3	GND	0V		3	GND	0V
	4	X2	Input 2		4	XA	Input 10
X3	1	+24V	24V DC	XB	1	+24V	24V DC
	2	NC	Unused		2	NC	Unused
	3	GND	0V		3	GND	0V
X4	4	X3	Input 3 24V DC	XC	4	XB +24V	Input 11 24V DC
Λ4	$\frac{1}{2}$	+24V NC	Unused	AC	$\frac{1}{2}$	NC	Unused
	3	GND	0V		3	GND	0V
	$\frac{3}{4}$	X4	Input 4		4	XC	Input 12
X5	1	+24V	24V DC	XD	1	+24V	24V DC
	2	NC	Unused		2	NC	Unused
	3	GND	0V		3	GND	0V
	4	X5	Input 5		4	XD	Input 13
X6	1	+24V	24V DC	XE	1	+24V	24V DC
	2	NC	Unused		2	NC	Unused
	3	GND	0V		3	GND	0V
X7	1	X6 +24V	Input 6 24V DC	XF	1	XE +24V	Input 14 24V DC
ΛΙ	$\frac{1}{2}$	NC	Unused	АГ	$\frac{1}{2}$	NC	Unused
	3	GND	0V		3	GND	0V
	-	W-1-		1			
	4	X7	Input 7		4	XF	Input 15
PII				PII			
No	N	ID	FUNCTION	No	V	ID	FUNCTION
	N D.	ID +24V	FUNCTION 24V DC	ll .	N).	ID +24V	FUNCTION 24V DC
No	N D. 1 2	ID +24V NC	FUNCTION 24V DC Unused	No	N D. 1 2	ID +24V NC	FUNCTION 24V DC Unused
No	N D. 1 2 3	ID +24V NC GND	FUNCTION 24V DC Unused 0V	No	N D. 1 2 3	ID +24V NC GND	FUNCTION 24V DC Unused 0V
Y0	N D. 1 2 3 4	ID +24V NC GND Y0	FUNCTION 24V DC Unused 0V Output 0	Y8	N D. 1 2 3 4	ID +24V NC GND Y8	FUNCTION 24V DC Unused 0V Output 8
No	N D. 1 2 3 4	1D +24V NC GND Y0 +24V	FUNCTION 24V DC Unused 0V Output 0 24V DC	No	N D. 1 2 3 4	ID +24V NC GND Y8 +24V	FUNCTION 24V DC Unused 0V Output 8 24V DC
Y0	N D. 1 2 3 4 1 2	1D +24V NC GND Y0 +24V NC	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused	Y8	N D. 1 2 3 4 1 2	1D +24V NC GND Y8 +24V NC	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused
Y0	N D. 1 2 3 4	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V	Y8	N D. 1 2 3 4	1D +24V NC GND Y8 +24V NC GND	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V
Y0	N D. 1 2 3 4 1 2 3	1D +24V NC GND Y0 +24V NC	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused	Y8	N D. 1 2 3 4 1 2	1D +24V NC GND Y8 +24V NC	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused
Y0 Y1	N D. 1 2 3 4 1 2 3 4 1 2 2	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1	Y8 Y9	N D. 1 2 3 4 1 2 3 4	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9
Y0 Y1	N D. 1 2 3 4 1 2 3 4 1 2 3	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 1	Y8 Y9	N D. 1 2 3 4 1 2 3 4 1 2 3 3	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 9
Y0 Y1 Y2	N D. 1 2 3 4 1 2 3 4 1 2 3 4 4	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2	Y9 YA	N D. 1 2 3 4 1 2 3 4 4 1 2 3 4 4	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10
Y0 Y1	N D. 1 2 3 4 1 2 3 4 1 1 2 1 3 4 1 1 1 2 1 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC	Y8 Y9	N D. 1 2 3 4 1 2 3 4 1 1 2 1 3 4 1 1 2 1 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC
Y0 Y1 Y2	N D. 1 2 3 4 1 2 3 4 1 1 2 3 4 1 2 2 3 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused	Y9 YA	N b. 1 2 3 4 1 2 3 4 4 1 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused
Y0 Y1 Y2	N D. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 3 4 1 2 3 3 4 1 1 2 3 3 4 1 1 2 1 3 3 1 1 2 1 3 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 2	Y9 YA	N b. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 3 4 1 2 3 3 4 1 1 2 3 3 4 1 1 2 1 3 3 1 1 2 1 3 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 10
Y0 Y1 Y2 Y3	N D. 1 2 3 4 1 2 3 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 1 2 3 3 4 4 1 1 1 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 2 Output 3	Y9 YA YB	N D. 1 2 3 4 1 2 3 4 1 2 3 4 4 1 2 3 4 4 1 2 4 3 4 4	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 10 24V DC Unused 0V Output 10
Y0 Y1 Y2	N D. 1 2 3 4 1 2 3 4 1 2 2 3 4 1 1 2 1 3 4 1 1 2 1 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC	Y9 YA	N D. 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 1 3 4 1 1 2 1 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC
Y0 Y1 Y2 Y3	N D. 1 2 3 4 1 2 3 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 1 2 3 3 4 4 1 1 1 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 2 Output 3	Y9 YA YB	N D. 1 2 3 4 1 2 3 4 1 2 3 4 4 1 2 3 4 4 1 2 4 3 4 4	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 10 24V DC Unused 0V Output 10
Y0 Y1 Y2 Y3	N D. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused	Y9 YA YB	N D. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 1 2 2 3 4 4 4 1 2 2 3 4 4 4 1 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 11 24V DC Unused 0V Output 11
Y0 Y1 Y2 Y3	No. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 3 4 1 2 3 3 4 1 3 4 1 4 1 2 3 3 4 1 3 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC	Y9 YA YB	N D. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 2 3 3 4 1 3 4 1 2 3 3 4 1 3 4 1 3 4 1 3 4 1 4 1 4 1 4 1 4	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 11 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12
Y0 Y1 Y2 Y3	N D. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 2 3 4 1 1 2 2 3 4 1 2 2 3 4 4 1 1 2 2 3 4 4 1 1 2 2 4 1 1 1 2 2 4 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused	Y8 Y9 YA YB	No. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 2 3 4 1 1 2 2 3 4 1 1 2 2 3 4 4 1 1 2 2 3 4 4 1 1 2 2 4 1 1 1 2 2 4 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused Unused
Y0 Y1 Y2 Y3	N D. 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 3 4 4 1 1 1 2 3 3 4 4 1 1 1 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused 0V	Y8 Y9 YA YB	N	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused 0V Output 12
Y0 Y1 Y2 Y3 Y4 Y5	N D. D. 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 3 4 4 1 4 1 4 1 4 1 4 1 4 1 4	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused 0V Output 5 Output 5	Y8 Y9 YA YB YC	N 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 3 4 4 1 2 3 3 4 4 1 3 4 4 1 4 1 4 1 4 1 4 1 4 1 4	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused 0V Output 13
Y0 Y1 Y2 Y3	N D. D. 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 3 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused 0V Output 5 24V DC Unused	Y8 Y9 YA YB	No. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 3 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused 0V Output 13 24V DC Unused
Y0 Y1 Y2 Y3 Y4 Y5	N D. 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused 0V Output 5 24V DC Unused Unused	Y8 Y9 YA YB YC	N 1 2 3 4 1 2 3 4 1 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 3 4 4 1 1 2 2 3 3 4 4 1 1 1 2 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused 0V Output 13 24V DC Unused Unused
Y0 Y1 Y2 Y3 Y4 Y5	N D. D. 1 2 3 4 1 2 3 4 1 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 4 4 1 3 3 4 4 1 3 4 4 1 3 4 4 1 3 4 4 1 3 4 4 1 4 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused 0V Output 5 24V DC Unused 0V Output 5 24V DC Unused 0V Output 5	Y8 Y9 YA YB YC	N 1 2 3 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 3 4 4 1 3 3 4 4 1 3 3 3 4 4 1 3 3 3 4 4 1 3 3 3 4 4 1 3 3 3 4 4 1 3 3 3 4 4 1 3 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 3 4 4 1 3 4 4 1 3 4 4 1 3 3 4 4 1 3 4 4 1 4 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused 0V Output 13 24V DC Unused 0V Output 13
Y0 Y1 Y2 Y3 Y4 Y5	N D. 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused 0V Output 5 24V DC Unused Unused	Y8 Y9 YA YB YC	N 1 2 3 4 1 2 3 4 1 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 4 4 1 2 2 3 3 4 4 1 1 2 2 3 3 4 4 1 1 1 2 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused 0V Output 13 24V DC Unused Unused
Y0 Y1 Y2 Y3 Y4 Y5	N D. D. 1 2 3 4 1 2 3 4 1 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 2 3 3 4 4 1 2 2 3 3 4 4 1 1 1 2 2 3 3 4 4 1 1 1 2 2 3 3 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused 0V Output 5 24V DC Unused 0V Output 6	Y8 Y9 YA YB YC YD	No. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 4 1 2 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 2 3 3 4 4 1 3 4 4 1 4 2 5 3 4 4 1 5 2 5 3 4 4 1 5 2 5 3 4 4 1 5 2 5 3 4 4 1 5 2 5 3 4 4 1 5 2 5 3 4 4 1 5 2 5 3 5 4 4 1 5 2 5 3 5 4 4 1 5 2 5 3 5 4 4 1 5 2 5 3 5 4 4 1 5 2 5 3 5 4 4 1 5 2 5 3 5 4 4 1 5 2 5 3 5 4 4 1 5 2 5 3 5 4 4 1 5 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused 0V Output 13
Y0 Y1 Y2 Y3 Y4 Y5	N D. D. 1 2 3 4 1 2 3 4 1 1 2 3 4 4 1 2 3 4 4 1 2 3 4 4 1 1 2 3 4 4 1 1 2 3 4 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 0 24V DC Unused 0V Output 1 24V DC Unused 0V Output 2 24V DC Unused 0V Output 3 24V DC Unused 0V Output 4 24V DC Unused 0V Output 5 24V DC Unused 0V Output 6 24V DC	Y8 Y9 YA YB YC YD	No. 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 3 4 1 1 2 1 3 1 4 1 1 2 1 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ID	FUNCTION 24V DC Unused 0V Output 8 24V DC Unused 0V Output 9 24V DC Unused 0V Output 10 24V DC Unused 0V Output 11 24V DC Unused 0V Output 12 24V DC Unused 0V Output 13 24V DC Unused 0V Output 14

MOUNTING INSTRUCTIONS

■ DIN RAIL MOUNTING (PARALLEL)

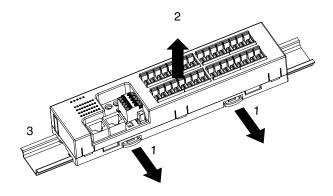
Mounting

- 1) Set the upper hook at the rear side of the unit on the DIN rail.
- 2) Push in the lower.



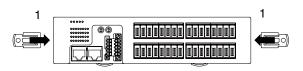
• Dismounting

- 1) Push down the DIN rail mounter slider with tip of a minus screwdriver.
- 2) Pull the lower of the unit.
- 3) Remove the upper hook of the unit from the DIN rail.

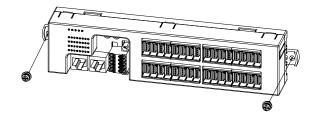


■ SURFACE MOUNTING

1) Insert the two DIN rail mounter sliders until it clicks once, as shown below.



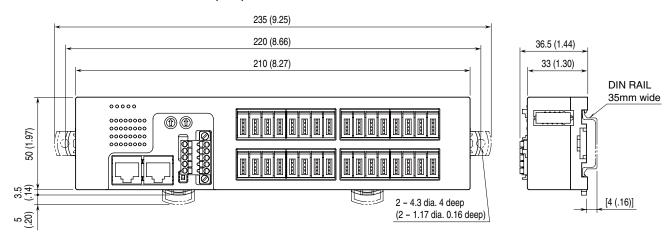
2) Mount the unit with M4 screws referring the External Dimensions. (Torque: 1.4 N·m)



TERMINAL CONNECTIONS

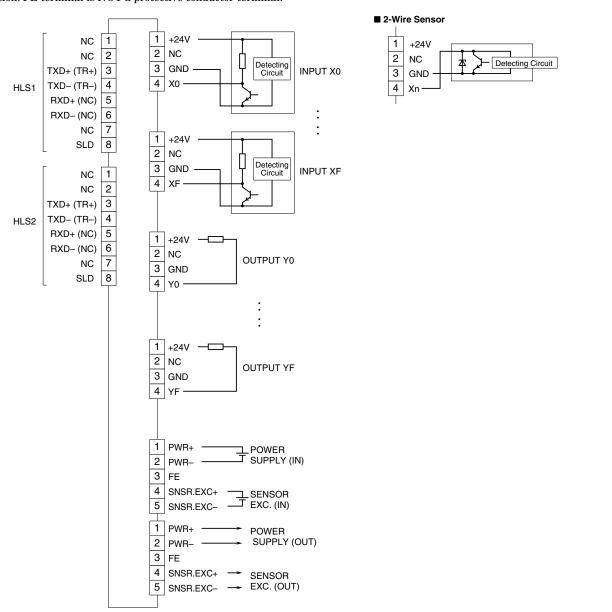
Connect the unit as in the diagram below.

■ EXTERNAL DIMENSIONS unit: mm (inch)



■ CONNECTION DIAGRAM

Note: In order to improve EMC performance, bond the FE terminal to ground. Caution: FE terminal is NOT a protective conductor terminal.



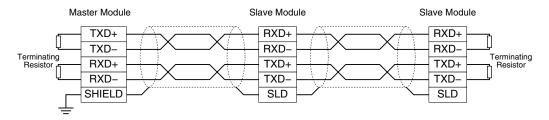
MOUNTING REQUIREMENTS unit: mm (inch)



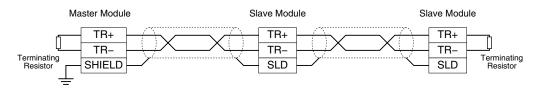
COMMUNICATION CABLE CONNECTIONS

■ MASTER CONNECTION

• Full-duplex communication



• Half-duplex communication



Note: Be sure to turn ON the switch of the terminating resistor located at both ends of the modules.

I/O DATA DESCRIPTIONS



