

# **R1-EC-60X2**

**User Guide**

**操作手冊**

## **User Information**

Be sure to store this guide at a safe place.

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# Chapter 1 Preface

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## 1.1 Inspection

Please inspect the following items carefully.

1. Package: Make sure the package is complete.
2. Bubble wrap: It can protect the product. Please make sure the sticker is firmly stuck on it.
3. R1-EC60X2: Please make sure no damage is shown on its appearance and the accessories are all attached.
4. Installation Guide: Check if there is an installation guide.

## 1.2 Model Explanation

**R            1            -            EC            6            0            X            2**  
**( 1 )            ( 2 )                            ( 3 )            ( 4 )            ( 5 )            ( 6 )            ( 7 )**

( 1 ) Product Type	Remote
( 2 ) Product Category	1: Type 1 - Slim
( 3 ) Product Name	EC: EtherCAT
( 4 ) Module Type	6: Gateway Digital Input Module
( 5 ) Module Subtype 1	0: 3.50 mm Terminal Connector
( 6 ) Module Subtype 2	0: General / 24 VDC / 100 $\mu$ s 1: General / 24 VDC / 1 ms 2: General / 24 VDC / 2 ms 3: General / 24 VDC / 3 ms
( 7 ) Port Number	2: 16 sets

## 1.3 Using R1-EC60X2

This product has to be used with R1-EC5500 of Delta Electronics.

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# Chapter 2 Specifications

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## 2.1 Product Figure



Figure 2.1 Front View

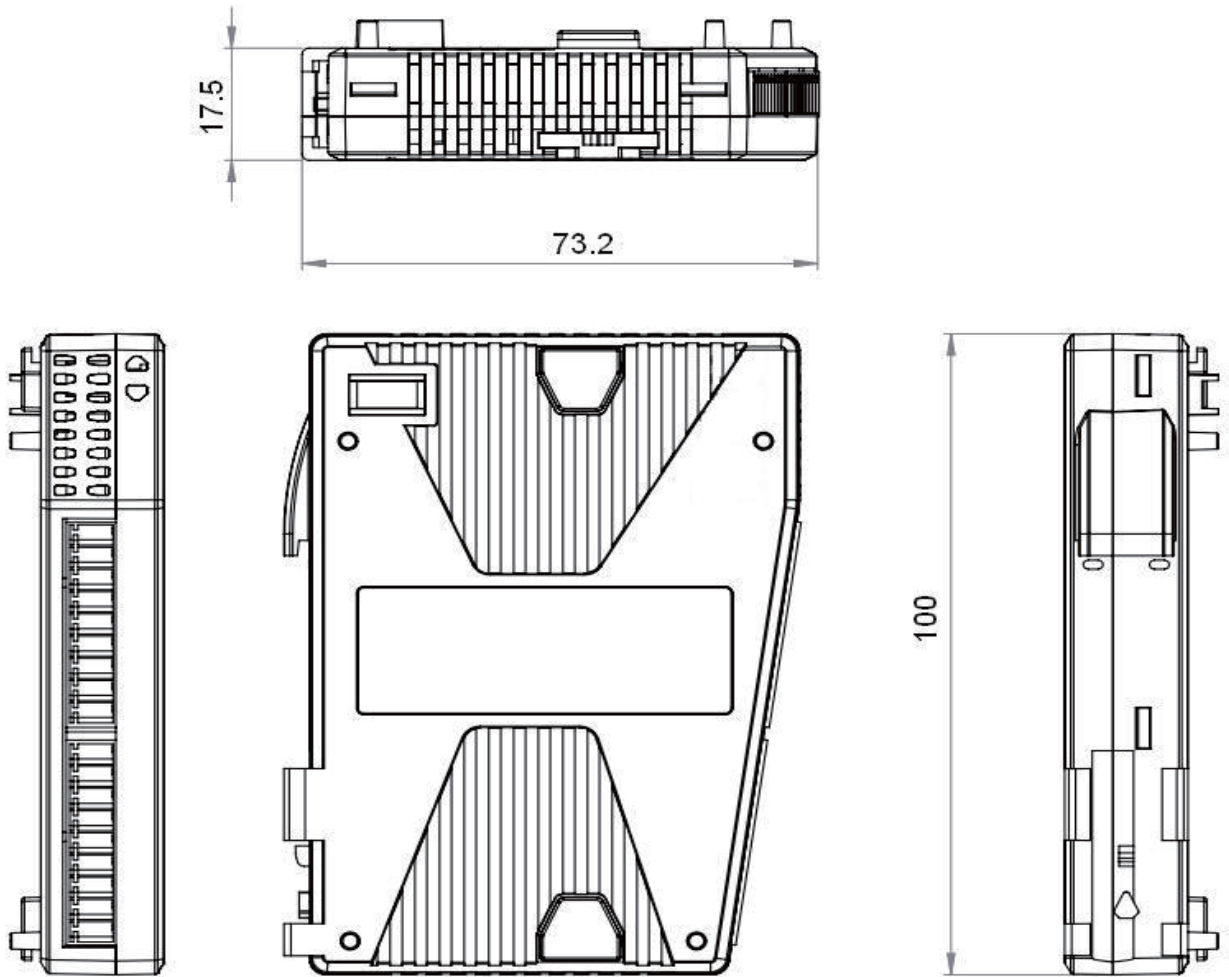
## 2.2 Specifications and Dimensions of R1-EC60X2

### 2.2.1 Electrical Specifications of R1-EC60X2

Item	R1-EC6002	R1-EC6012	R1-EC6022	R1-EC6032
Circuit Type	Single Common Port Input			
Signal Type	SINK / SOURCE			
Power Supply	24 VDC			
Current for Digital Input	3 mA			
Current for Digital Output	-			
E-bus Current Loss	150 mA			
Response Time	100 $\mu$ s	1 ms	2 ms	3 ms
Active Level (OFF > ON)	> 16.5 VDC			
Active Level (ON > OFF)	< 8 VDC			
Noise Immunity	ESD (IEC 61131-2, IEC 61000-4-2): 8 KV Air Discharge EFT (IEC 61131-2, IEC 61000-4-4): Power Line: 2 KV, Communication I/O: 1KV RS (IEC 61131-2, IEC 61000-4-3): 80 MHz ~ 1 GHz, 10 V/m			
Operating / Storage Temperature	Operating: 0°C ~ 50°C; Storage: -20°C ~ 70°C			

### 2.2.2 Dimensions of R1-EC60X2

Dimensions of R1-EC60X2: 100 mm x 73.2 mm x 17.5 mm





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# Chapter 3 Product Description

## 3.1 Description of Each Part

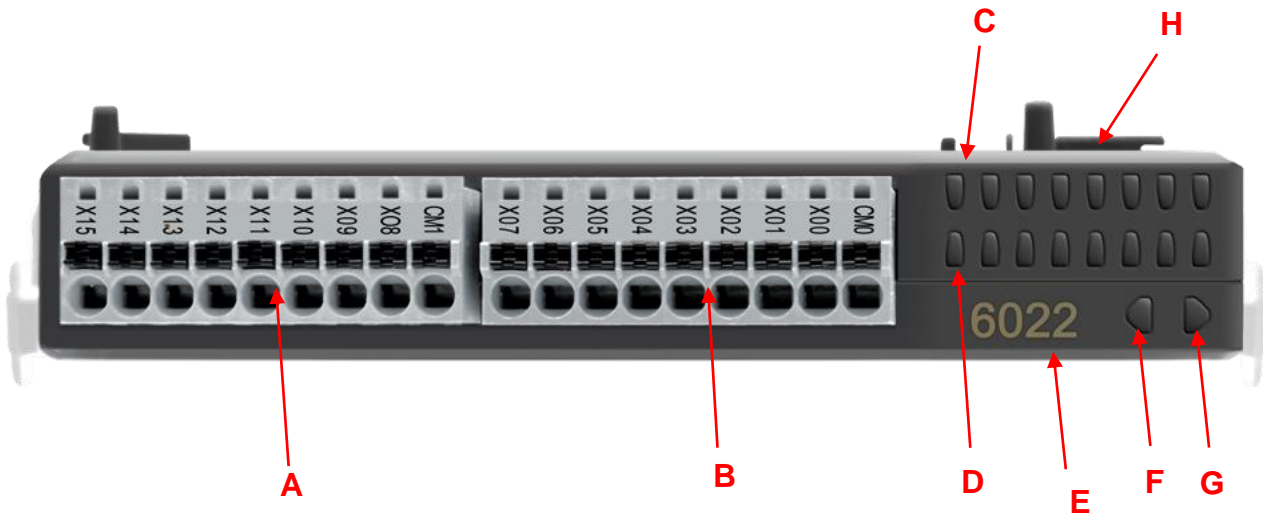


Figure 3.1 Identification of Each Part

No.	Description
A	Port 1
B	Port 0
C	(Part B) Port0 IO Signal X07~X00 Display (from Left to Right)
D	(Part A) Port1 IO Signal X15~X08 Display (from Left to Right)
E	Product ID Number
F	Status Indicator
G	Power Indicator
H	E-BUS Input Port

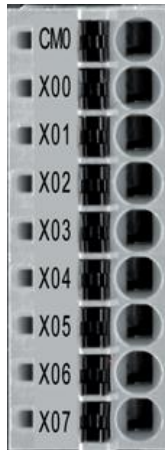


Figure 3.2 Pin Definition of Part B

Label	Description
CM0	Port 0 24V Input
X00	P0 GPIO 1 Input
X01	P0 GPIO 2 Input
X02	P0 GPIO 3 Input
X03	P0 GPIO 4 Input
X04	P0 GPIO 5 Input
X05	P0 GPIO 6 Input
X06	P0 GPIO 7 Input
X07	P0 GPIO 8 Input



Figure 3.3 Pin Definition of Part A

Label	Description
CM1	Port 1 24V Input
X08	P1 GPIO 1 Input
X09	P1 GPIO 2 Input
X10	P1 GPIO 3 Input
X11	P1 GPIO 4 Input
X12	P1 GPIO 5 Input
X13	P1 GPIO 6 Input
X14	P1 GPIO 7 Input
X15	P1 GPIO 8 Input



Figure 3.4 Definition of C, D, E, F, and G

No.	Description
C	(Part B) Port0 Signal X07~X00 Display
D	(Part A) Port1 Signal X15~X08 Display
E	Product ID Number
F	Status Signal
G	Power Signal

# Chapter 4 Wiring

## 4.1 Wiring of R1-EC60X2 Input Point

### SINK

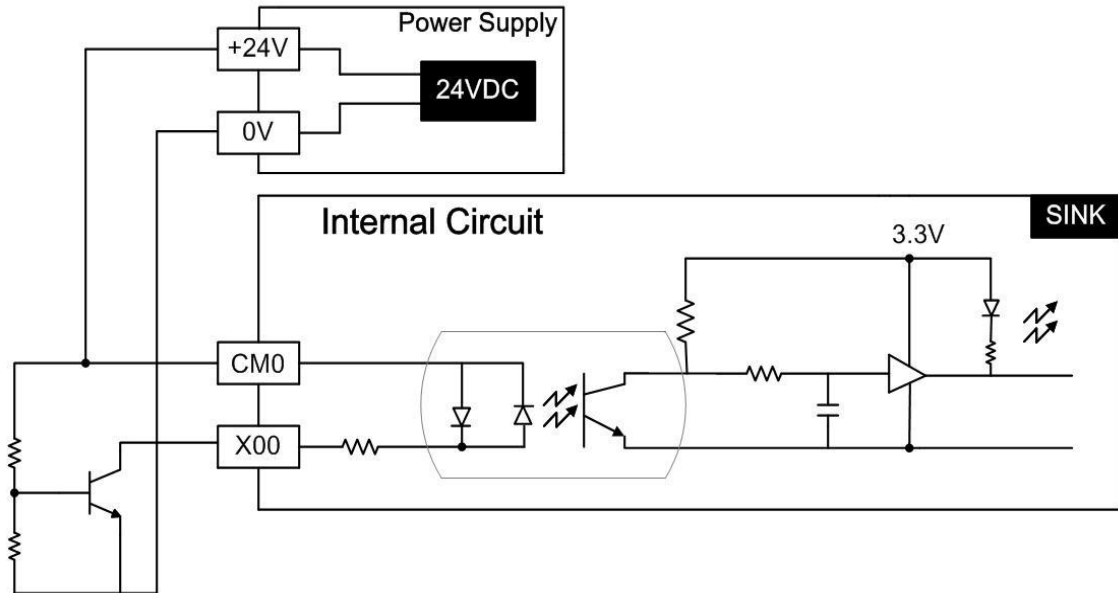


Figure 4.1 Wiring Example of SINK

### SOURCE

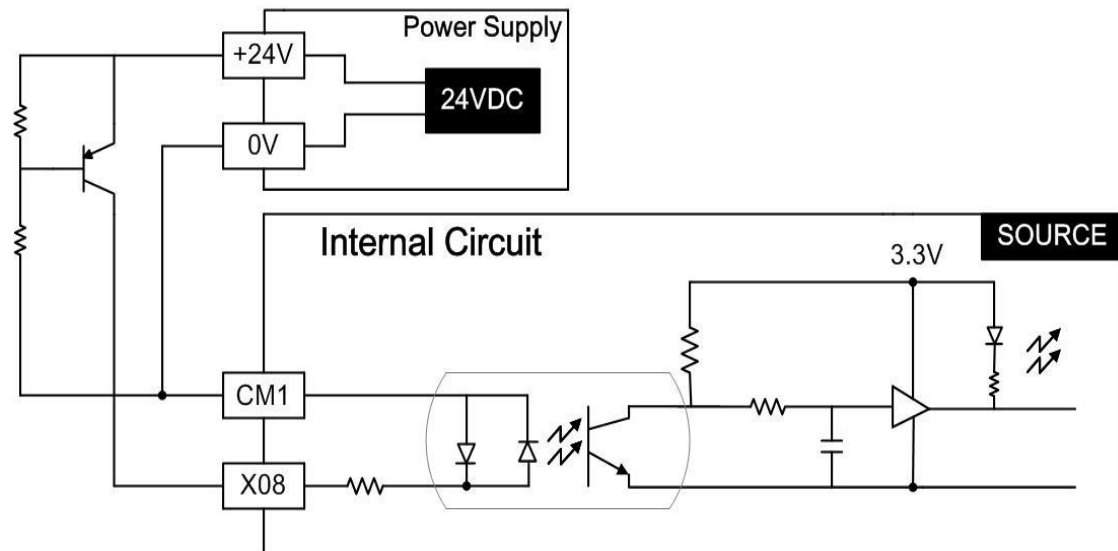


Figure 4.2 Wiring Example of SOURCE

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