

Rtelligent RE-1616 expansion module Quick Start Guide

Thank you for using Rtelligent RE-1616 expansion module!

This operation manual provides relevant information on RE-1616 expansion module.

Before use, please carefully read the relevant content of the manual to ensure correct use!

- Verify terminal definitions before wiring. Incorrect connections may cause hardware damage.
- Insulate all power terminal connections to prevent electric shock.
- Only authorized personnel should perform configuration, disassembly, or repairs. Unauthorized handling may cause electric shock or injury.
- Never remove covers, cables, connectors, or optional components while powered on—risk of electric shock.
- Implement safety measures to prevent hazards during restart—failure to do so may cause injury.
- Modification of this product is strictly prohibited—may result in injury or equipment damage.
- Do not install in environments with: corrosive/flammable gases, high temperature, humidity, dust, or metal particles.
- Maintain adequate spacing for proper heat dissipation.
- In high-interference industrial environments, use shielded cables for high-frequency I/O ports.

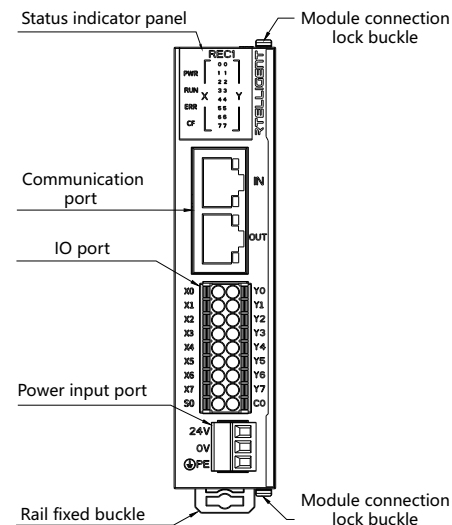
Product Specifications

RE - 16 16 - N
① ② ③ ④

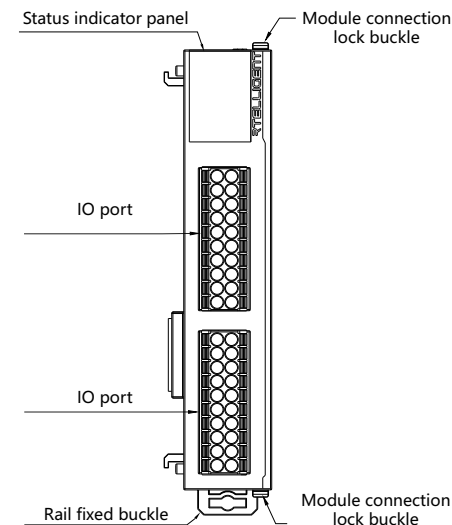
- ① RE: Remote Expansion Module
- ② 16: Digital Input I/O Points
- ③ 16: Digital Output I/O Points
- ④ N: NPN P: PNP

- Built-in I/O status indicator panel
- Digital Input Terminal Voltage Range: 18V–30V DC
- Input Type: All bipolar digital inputs Output Type: Common-cathode NPN outputs
- Isolation Method: Optocoupler isolation
- Default Input Filtering: 2ms

Product Diagram

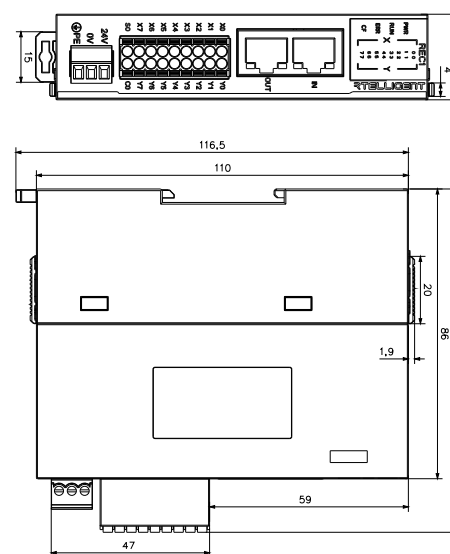


Coupler

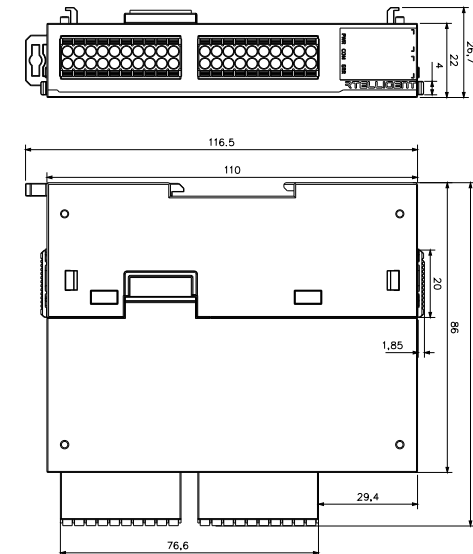


IO module

Product Dimension

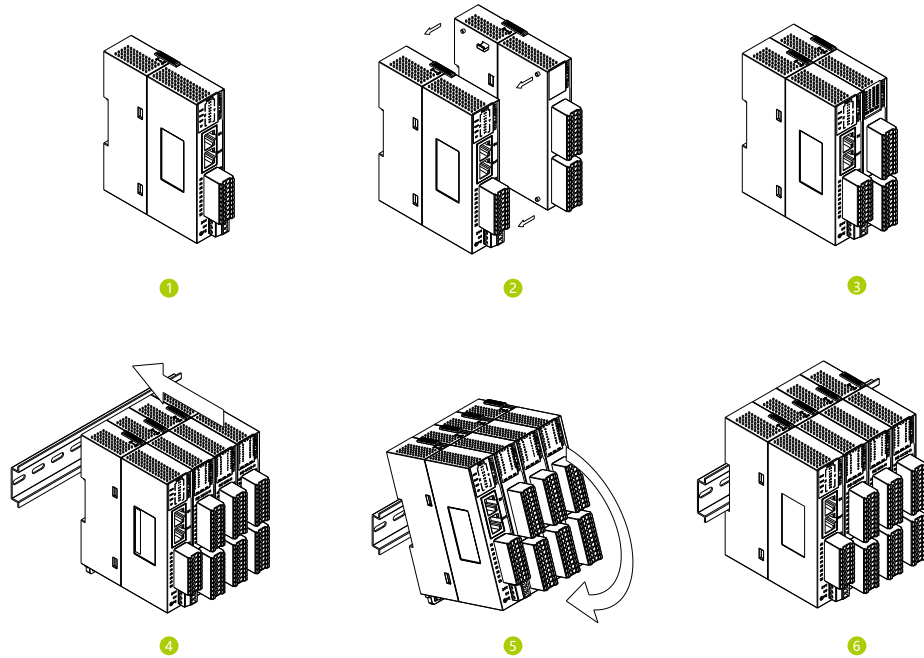


Coupler

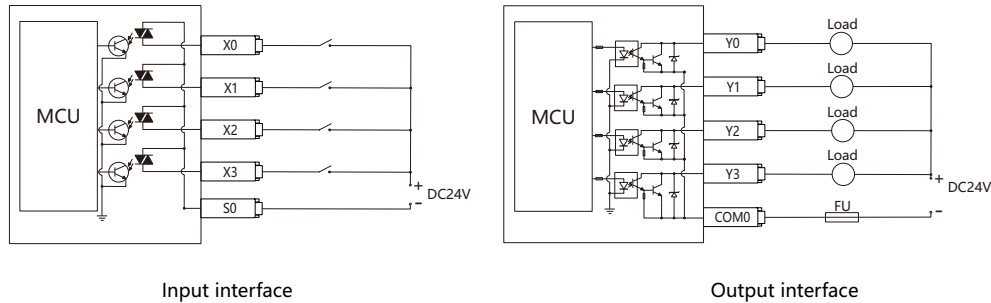


IO module

Installation Guide



Wiring diagram



Panel Indicators

Indicator	Function	Status Description
PWR	Power LED	Steady ON: Module powered normally
COM	Online LED	Steady ON: Module online (normal communication) OFF: Disconnected
ERR	Alarm LED	OFF: Normal • Blinking: Alarm condition

PDO Parameter Description

PDO Type	PDO Name	Byte Size
PDO input	Digital input CH1-8bit	8bit
	Digital input CH2-8bit	8bit
PDO output	Digital output CH1-8bit	8bit
	Digital output CH2-8bit	8bit
	Output mode after lost link	16bit
	Output value after lost link	16bit

• Digital input CH1-8bit

When the corresponding bit is 1, the optocoupler of the input port conducts; when 0, it does not conduct.

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
X7	X6	X5	X4	X3	X2	X1	X0

• Digital input CH2-8bit

When the corresponding bit is 1, the optocoupler of the input port conducts; when 0, it does not conduct.

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
X17	X16	X15	X14	X13	X12	X11	X10

• Digital output CH1-8bit

When the corresponding bit is 1, the optocoupler of the output port conducts; when 0, it does not conduct.

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0

• Digital output CH2-8bit

When the corresponding bit is 1, the optocoupler of the output port conducts; when 0, it does not conduct.

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Y17	Y16	Y15	Y14	Y13	Y12	Y11	Y10

• Output mode after lost link

When the corresponding bit is 0 (Mode 0): The device alarm I/O maintains its original output.
When the corresponding bit is 1 (Mode 1): The device alarm I/O output follows the "Output value after lost link" setting. Default "Output mode after lost link": 0.

Bit15	Bit14	Bit13	Bit12	Bit11	Bit10	Bit9	Bit8
Y17	Y16	Y15	Y14	Y13	Y12	Y11	Y10
Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0

• Output value after lost link

When operating in Mode 1, the device alarm I/O output will follow the "Output value after lost link" parameter setting. Default value: "Output value after lost link" = 0

Bit15	Bit14	Bit13	Bit12	Bit11	Bit10	Bit9	Bit8
Y17	Y16	Y15	Y14	Y13	Y12	Y11	Y10
Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0