

UB-10-ID32A UB-10-OR16A UB-10-OR16B UB-10-OT32A

2017-02-10



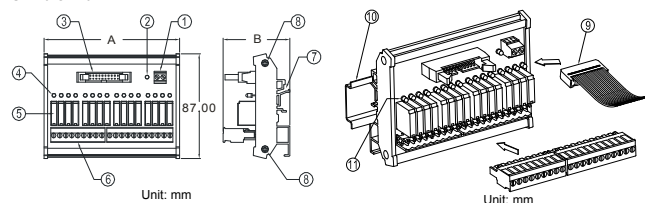
Instruction Sheet

安裝說明 安 装 说 明

External Terminal Modules
配線模組
配线模块

*2: You can use the Delta standard I/O extension cable UC-ET010-24A (IDC 40P-40P)

UB-10-OR16A/B



- 2-PIN power input terminal block
- Power LED indicator
- 20-pin latch connector
- Output LED indicator
- Output relay
- 9-pin and 11-pin output terminal blocks
- Clip
- Set screw
- 20-pin IDC connector*3
- DIN rail
- Output LED indicator

*3: You can use the Delta standard I/O extension cable UC-ET010-24C (IDC 40P-20P*2)

| UB-10- | ID32A/OT32A | OR16A/B |
|--------|-------------|---------|
| A | 113.00 | 113.00 |
| B | 53.60 | 55.30 |

Model Description

| Model Name | Power | Input Unit | | Output Unit | | Applicable I/O module |
|-------------|----------------------|------------------|--|-------------------|-------|---|
| | | Number of inputs | Type | Number of outputs | Type | |
| UB-10-ID32A | N/A | 32 | Please refer to the specifications for the module connected. | 0 | N/A | DVP32SM11N AH32AM10N-5C AH64AM10N-5C |
| UB-10-OR16A | 24 V DC [#] | 0 | N/A | 16 | Relay | DVP32SN11TN AH32AN02T-5C AH64AN02T-5C |
| UB-10-OR16B | 24 V DC [#] | 0 | N/A | 16 | Relay | AH32AN02P-5C AH64AN02P-5C |
| UB-10-OT32A | 24 V DC [#] | 0 | N/A | 32 | Relay | DVP32SN11TN AH32AN02T-5C AH64AN02T-5C AH64AN02P-5C |

#: +24V and GND must connect to the 24V DC auxiliary power supply (-15% ~ +20%), and the rated current consumption is 1 mA/point.

I/O Extension cable

| Model | Length | Number of pins | Connector | Applicable model |
|--------------|--------|----------------|-----------------------------|-----------------------------|
| UC-ET010-24A | 1 m | 40P-40P | IDC connectors at both ends | UB-10-ID32A and UB-10-OT32A |

UB-10-OR16A/B

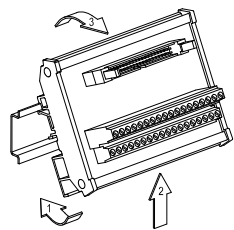
| | C0 | Y0 | Y1 | Y2 | Y3 | C1 | Y4 | Y5 | Y6 | Y7 | C2 | Y10 | Y11 | Y12 | Y13 | C3 | Y14 | Y15 | Y16 | Y17 | GND | +24V | |
|-----------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|------|--|
| Upper row | Y0 | Y2 | Y4 | Y6 | Y10 | Y12 | Y14 | Y16 | Y20 | Y22 | Y24 | Y26 | Y30 | Y32 | Y34 | Y36 | +24V | +24V | | | | | |
| Lower row | Y1 | Y3 | Y5 | Y7 | Y11 | Y13 | Y15 | Y17 | Y21 | Y23 | Y25 | Y27 | Y31 | Y33 | Y35 | Y37 | GND | GND | | | | | |

UB-10-OT32A

| | Y0 | Y2 | Y4 | Y6 | Y10 | Y12 | Y14 | Y16 | Y20 | Y22 | Y24 | Y26 | Y30 | Y32 | Y34 | Y36 | +24V | +24V | | | | | |
|-----------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|--|--|--|--|--|
| Upper row | Y0 | Y2 | Y4 | Y6 | Y10 | Y12 | Y14 | Y16 | Y20 | Y22 | Y24 | Y26 | Y30 | Y32 | Y34 | Y36 | +24V | +24V | | | | | |
| Lower row | Y1 | Y3 | Y5 | Y7 | Y11 | Y13 | Y15 | Y17 | Y21 | Y23 | Y25 | Y27 | Y31 | Y33 | Y35 | Y37 | GND | GND | | | | | |

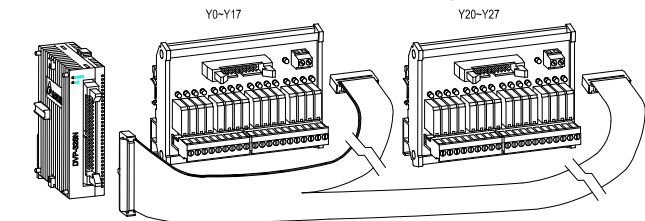
Installation

Installing a DIN rail:



Fix one side first.
Next, put the external terminal module on the DIN rail. Please make sure that the external terminal module is tightly combined with the DIN rail.
If you want to remove the external terminal module, push the external terminal module in the direction indicated by arrow 2, and pull it in the direction indicated by arrow 3.

Example: DVP32SN11TN is connected to UB-10-OR16A in the way shown below.



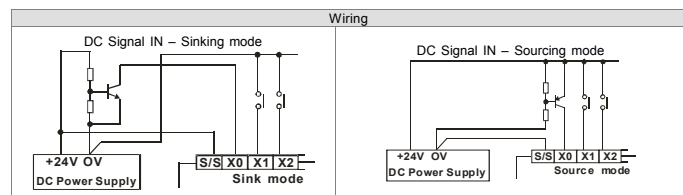
Points for attention about the environment:

- DO NOT** install the module in an environment exposed to corrosive substances such as chloride gas and sulfide gas, flammable substances such as oil mist and cutting powder, or dirt.
- DO NOT** install the module in a high-temperature or humid environment, or in a place which is shocked and vibrated.
- DO NOT** bind the signal cables and the power cables together or use multicore cables.

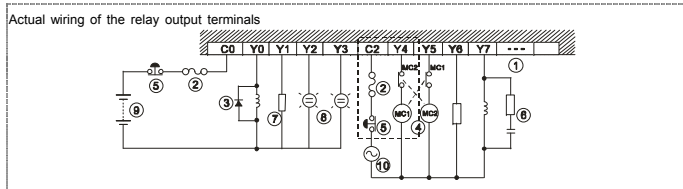
Wiring the I/O Terminals

Wiring the input terminals:

The input signals are DC inputs. Sinking and sourcing are current driving capabilities of a circuit. They are defined as follows.



Wiring the output terminals:



- Other output terminals
- Fuse
- Reverse current protection diode*1
- Mutually exclusive output*2
- Emergency stop: An external switch is used.
- Surge absorber *3
- Inductive load
- Incandescent lamp (resistive load)
- DC power supply
- AC power supply

*1: There is no internal protection circuit inside the output relays of UB-10-OR16A/B. Therefore, if UB-10-OR16A/B is connected to a DC inductive load, please connect a reverse current protection diode in parallel to extend the life of the contact. The reverse current protection diode must meet the following specifications.

- It must endure 5-10 times at most the amount of the load voltage
- Its forward current has to be bigger than the load current.

*2: The mutually exclusive output uses an external circuit and forms an interlock circuit. The interlock circuit and the program in a PLC ensure that there are protective measures if an abnormal condition occurs.

*3: There is no internal protection circuit inside the output relays of UB-10-OR16A/B. Therefore, if UB-10-OR16A/B is connected to an AC inductive load, please connect it to a surge absorber (0.1 uF + "100 ohm to 120 ohm") in parallel to reduce the noise generated by the AC load and extend the life of the contact.

Note: Please select proper diameters of cables. If modules are operated for a long time, and diameters of cables are not sufficient, the cables may be overheated and sparks.

⚠ 注意事項

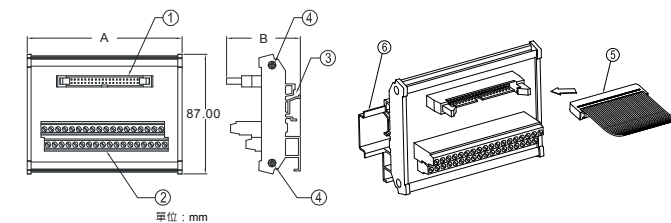
- 請在使用之前，詳細閱讀本使用說明書。
- 本機為開放型 (OPEN TYPE) 機種，因此使用者使用本機時，必須將之安裝於具防塵、防潮及免於電擊/衝擊意外之外殼配線箱內，另必須具備保護措施 (如：特殊之工具或鑰匙才可打開) 防止非維護人員操作或意外衝擊本體，造成危險及損壞。
- 交流輸入電源不可連接於直流類型之輸入/輸出號端，否則可能造成嚴重的損壞，因此請在上電之前再次確認電源配線，請勿在上電時觸摸任何端子。

📄 產品簡介

感謝您採用台達 PLC 配件 - UB-10-ID32A、UB-10-OR16A、UB-10-OR16B 及 UB-10-OT32A。此系列產品為台達 PLC 高密度 I/O 模組之配線模組，搭配連接線 UC-ET010-24A 或 UC-ET010-24C，應用於高密度 I/O 模組之 I/O 點擴展。

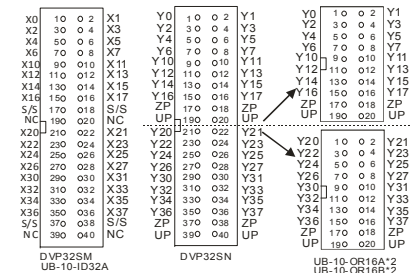
■ 產品外觀尺寸及各部介紹

UB-10-ID32A/UB-10-OT32A



- 40PIN 牛角座*1
- 36PIN 輸入端子
- DIN 軌固定槽
- 底座固定鎖
- 40PIN IDC 連接線*2
- DIN 軌

*1: 端子配置如下所示



⚠ Warning

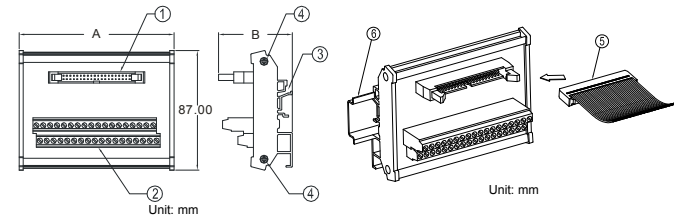
- Please read this instruction sheet carefully before using the product.
- It is an OPEN-TYPE device. It should be installed in a control cabinet free of airborne dust, humidity, electric shock and vibration. To prevent the non-maintenance staff from operating the product, or to prevent an accident from damaging the product, the control cabinet should be equipped with a safeguard. For example, the control cabinet is unlocked with a special tool or key.
- DO NOT connect the input AC power supply to any of I/O terminals; otherwise serious damage may occur. Check all the wiring again before switching on the power supply. Do NOT touch any terminals when the power supply is switched on.

📄 Introduction

Thanks for adopting Delta accessories UB-10-ID32A, UB-10-OR16A, UB-10-OR16B, and UB-10-OT32A. These accessories are external terminal modules connected to Delta I/O modules. UC-ET010-24A and UC-ET010-24C are I/O extension cables connecting these external terminal modules and Delta I/O modules.

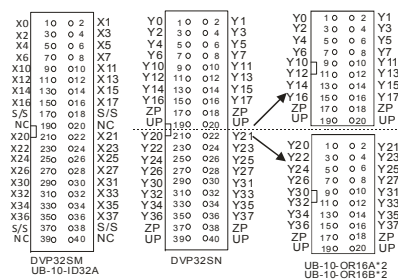
■ Product Profile & Outline

UB-10-ID32A/OT32A



- 40-pin latch connector*1
- 36-pin input terminal block
- Clip
- Set screw
- 40-pin IDC connector*2
- DIN rail

*1: Terminal layouts



| Model | Length | Number of pins | Connector | Applicable model |
|--------------|--------|----------------|-----------------------------|-----------------------------|
| UC-ET010-24C | 1 m | 40P-20P*2 | IDC connectors at both ends | UB-10-OR16A and UB-10-OR16B |

📄 Specifications

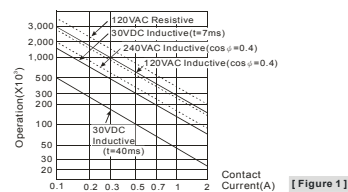
■ Electrical Specifications

| Item | Model | UB-10-ID32A/OT32A | UB-10-OR16A/B |
|-----------------------|-------|--|---------------|
| Insulation resistance | | > 5 MΩ (The insulation voltage between all inputs/outputs and the ground is 500 V DC.) | |
| Operation/Storage | | Operation: 0~55°C (temperature); 5~95% (humidity); pollution degree 2 Storage: -25~70°C (temperature); 5~95% (humidity) | |
| Weight (g) | | 166 g | 216 g |

■ Specifications for the Outputs on UB-10-OR16A/B

| Type | Relay-R |
|-----------------------|-------------------------------|
| Current specification | 2 A/point (5A/COM) |
| Voltage specification | < 250 V AC, below 30 V DC |
| Maximum Inductance | Life cycle curve [#] |
| load | Bulb 20 W DC/100 W AC |
| Response time | Approximately 10 ms |

#: Life cycle curve



📄 Installation & Wiring

■ Terminals on the External Terminal Module

UB-10-ID32A

| | | | | | | | | | | | | | | | | | | |
|-----------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Upper row | X0 | X2 | X4 | X6 | X10 | X12 | X14 | X16 | X20 | X22 | X24 | X26 | X30 | X32 | X34 | X36 | S/S | S/S |
| Lower row | X1 | X3 | X5 | X7 | X11 | X13 | X15 | X17 | X21 | X23 | X25 | X27 | X31 | X33 | X35 | X37 | S/S | S/S |

