

IFD9507

INSTRUCTION SHEET

安裝說明 安 装 说 明

- ▲ Ethernet Communication Module
- ▲ Ethernet 從站通訊模組
- ▲ Ethernet 从站通讯模块



http://www.delta.com.tw/industrialautomation

■ RS-485 Connector

Interface	RJ-11
Transmission method	RS-485
Transmission speed	110/150/300/600/1,200/2,400/4,800/9,600/19,200/38,400/57,600/115,200
Communication format	Stop bit: 1, 2 Parity bit: None, Odd, Even Data bit: 7, 8 ASCII/RTU
Communication protocol	Modbus, User Define

■ RS-232 Connector

Interface	Mini Dim
Transmission method	RS-232
Transmission speed	110/150/300/600/1,200/2,400/4,800/9,600/19,200/38,400/57,600/115,200
Communication format	Stop bit: 1, 2 Parity bit: None, Odd, Even Data bit: 7, 8 ASCII/RTU
Communication protocol	Modbus, Delta Configuration, User Define
Transmission cable	DVPACAB215/DVPACAB230/DVPACAB2A30

■ Terminal Block

Interface	Feed-through terminal 10PIN
Transmission method	RS-485
Transmission distance	1,200m
Transmission speed	110/150/300/600/1,200/2,400/4,800/9,600/19,200/38,400/57,600/115,200
Communication format	Stop bit: 1, 2 Parity bit: None, Odd, Even Data bit: 7, 8 ASCII/RTU
Communication protocol	Modbus, User Define

■ Electrical Specifications

Power voltage	24V DC (-15% ~ 20%) supplied by feed-through terminal
Power consumption	3W
Insulation voltage	500V
Weight	140g

■ Environment

Noise immunity	ESD (IEC 61131-2, IEC 61000-4-2): 8KV Air Discharge EFT (IEC 61131-2, IEC 61000-4-4): Power Line:±2KV, Digital Input: ±2KV, Communication I/O: ±2KV RS (IEC 61131-2, IEC 61000-4-3): 80MHz ~ 1GHz, 10V/m, 1.4GHz ~ 2.0GHz, 10V/m Conducted Susceptibility Test (EN 61000-4-6, IEC 61131-2 9.10): 150kHz ~ 80MHz, 3V/m Surge Test (Biwave IEC 61132-2, IEC 61000-4-5): Power line 0.5KV DM, Ethernet 0.5KV CM, RS-485 0.5KV CM
Operation/storage	Operation: 0°C ~ 55°C (temperature), 50 ~ 95% (humidity), pollution degree 2 Storage: -25°C ~ 70°C (temperature), 5 ~ 95% (humidity)
Vibration/shock immunity	International standards: IEC 61131-2, IEC 68-2-6 (TEST Fc)/IEC 61131-2 & IEC 68-2-27(TESEa)
Certificates	CE, RoHS, UL

■ RJ-11 PIN Definition

PIN	Signal	Definition	PIN	Signal	Definition
1	--	N/C	4	D-	Negative pole for data
2	--	N/C	5	GND	Ground
3	D+	Positive pole for data	6	--	N/C



■ RJ-45 PIN Definition

PIN	Signal	Definition	PIN	Signal	Definition
1	Tx+	Positive pole for data transmission	5	--	N/C
2	Tx-	Negative pole for data transmission	6	Rx-	Negative pole for data receiving
3	Rx+	Positive pole for data receiving	7	--	N/C
4	--	N/C	8	--	N/C



■ RS-232 PIN Definition

PIN	Signal	Definition	PIN	Signal	Definition
1	--	N/C	5	Tx	Transmission data
2	--	N/C	6	--	N/C
3	--	N/C	7	--	N/C
4	Rx	Reception data	8	GND	Ground



■ Feed-through Terminal PIN Definition

PIN	Signal	Definition
1	SG	Ground of signal
2	D-	Data-
3	D+	Data+
4	X2	Digital input 2
5	X1	Digital input 1
6	X0	Digital input 0
7	S/S	Ground of digital input
8	24V	+24V
9	0V	0V
10	--	Earth ground



⚠ 注意事項

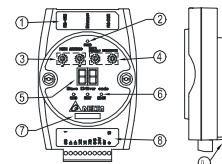
- ✓ 此系列零件只提供電氣規格、一般規格、安裝及配線等。
- ✓ 配線時請務必關閉電源，請勿在上電時觸碰任何端子。
- ✓ 本機為開放型 (OPEN TYPE) 機殼，因此使用者使用本機時，必須詳之安裝於具防塵、防潮及免於電擊/衝擊意外之外收配線箱內，另必須具備保護措施 (如：將殊之工具或鑰匙才可打開)，防止非授權人員操作或意外衝擊本體，造成危險及損壞。

① 產品簡介

■ 功能特色

1. 自動偵測 10/100 Mbps 傳輸速率，MDI/MDI-X 自動偵測。
2. 提供 Monitor table 可暫存監控的資料，讓使用者快速存取。
3. 支援 Modbus TCP 協定和 Ethernet/IP 協定 (支援 Master 和 Slave 模式)。
4. 網線撥線後發送電子郵件。
5. 可由外電設定站號、RS-485 通訊格式、速率。
6. 可由 Web 設定通訊參數。

■ 產品外觀



- ① 通訊口 RS-485, Ethernet, RS-232
- ② 電源指示燈
- ③ 站號設定開關
- ④ 通訊格式、通訊速率設定開關
- ⑤ 數位顯示器
- ⑥ RS-485 指示燈、Reset 按鍵、Ethernet 指示燈
- ⑦ 模組名稱
- ⑧ 端子台 RS-485 連接器、數位輸入點、電源輸入、大地
- ⑨ DIN 軌連接器

② 功能規格

■ Ethernet 連接器

接頭	RJ-45 with Auto MDI/MDIX
傳輸方式	Ethernet Type II
傳輸距離	Category 5e, 100 公尺 (Max)
傳輸速率	10/100 Mbps Auto-Detection
網路協定	ICMP, IP, TCP, UDP, DHCP, SMTP, Modbus OVER TCP/IP, Ethernet/IP, Delta Configuration

■ RS-485 連接器

接頭	RJ-11
傳輸方式	RS-485
傳輸速率	110/150/300/600/1,200/2,400/4,800/9,600/19,200/38,400/57,600/115,200
通訊格式	Stop bit: 1, 2 Parity bit: None, Odd, Even Data bit: 7, 8 ASCII/RTU
通訊協定	Modbus, User Define

■ RS-232 連接器

接頭	Mini Dim
傳輸方式	RS-232
傳輸速率	110/150/300/600/1,200/2,400/4,800/9,600/19,200/38,400/57,600/115,200
通訊格式	Stop bit: 1, 2 Parity bit: None, Odd, Even Data bit: 7, 8 ASCII/RTU
通訊協定	Modbus, Delta Configuration, User Define
傳輸距離	DVPACAB215/DVPACAB230/DVPACAB2A30

■ 端子台連接器

接頭	歐式端子台 10PIN
傳輸方式	RS-485
傳輸距離	1,200m
傳輸速率	110/150/300/600/1,200/2,400/4,800/9,600/19,200/38,400/57,600/115,200
通訊格式	Stop bit: 1, 2 Parity bit: None, Odd, Even Data bit: 7, 8 ASCII/RTU
通訊協定	Modbus, User Define

■ 電氣規格

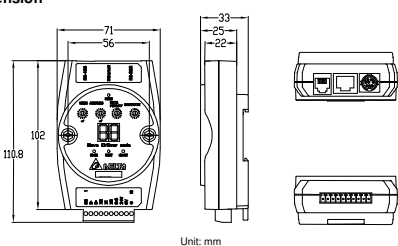
電源電壓	24V DC (-15% ~ 20%) 由歐式端子台輸入
消耗電力	3W
絕緣電壓	500V
重量	140g

■ 環境規格

雜訊免疫能力	ESD (IEC 61131-2, IEC 61000-4-2): 8KV Air Discharge EFT (IEC 61131-2, IEC 61000-4-4): Power Line:±2KV, Digital Input: ±2KV, Communication I/O: ±2KV RS (IEC 61131-2, IEC 61000-4-3): 80MHz ~ 1GHz, 10V/m, 1.4GHz ~ 2.0GHz, 10V/m Conducted Susceptibility Test (EN 61000-4-6, IEC 61131-2 9.10): 150kHz ~ 80MHz, 3V/m Surge Test (Biwave IEC 61132-2, IEC 61000-4-5): Power line 0.5KV DM, Ethernet 0.5KV CM, RS-485 0.5KV CM
操作 / 儲存環境	操作：0°C ~ 55°C (溫度) · 50 ~ 95% (濕度) · 污染等級 2 儲存：-25°C ~ 70°C (溫度) · 5 ~ 95% (濕度)
耐震動 / 衝擊	國際標準規範 IEC 61131-2, IEC 68-2-6 (TEST Fc)/IEC 61131-2 & IEC 68-2-27 (TEST Ea)
標準	CE, RoHS, UL

③ Installation

■ Dimension



■ Address Switch

Switch setting	Content
01 ... F7	Valid Modbus communication address

■ Data Format Switch

Switch setting	Format	Switch setting	Format
0	7-N-1	8	7-N-2
1	8-N-1	9	8-N-2
2	7-O-1	A	7-O-2
3	8-O-1	B	8-O-2
6	7-E-1	E	7-E-2
7	8-E-1	F	8-E-2

■ Baud Rate Switch

Switch setting	Baud rate (bps)	Switch setting	Baud rate (bps)
1	110	7	4,800
2	150	8	9,600
3	300	9	19,200
4	600	A	38,400
5	1,200	B	57,600
6	2,400	C	115,200

⚠ Warning

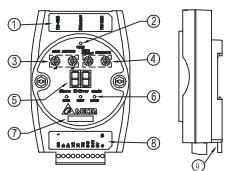
- ✓ This instruction sheet only provides introductory information on electrical specification, installation and wiring.
- ✓ Switch off the power before wiring. DO NOT touch any terminal when the power is switched on.
- ✓ IFD9507 is an OPEN-TYPE device and therefore should be installed in an enclosure free of airborne dust, humidity, electric shock and vibration. The enclosure should prevent non-maintenance staff from operating the device (e.g. key or specific tools are required to open the enclosure) in case danger and damage on the device may occur.

③ Introduction

■ Features

1. Auto-detects 10/100 Mbps transmission speed; MDI/MDI-X auto-detection.
2. The monitor table temporarily stores the monitored data for the user to fast save or acquire the data.
3. Supports Modbus TCP protocol and Ethernet/IP protocol (supports Master and Slave mode).
4. Able to send out emails after being triggered.
5. The station address, RS-485 communication format and baud rate can be set up externally.
6. The communication parameters can be set up through Web.

■ Product Profile & Outline



- ① Communication ports: RS-485, Ethernet, RS-232
- ② Power indicator
- ③ Address switch
- ④ Data format/baud rate switch
- ⑤ Digit display
- ⑥ RS-485 indicator, Reset button, Ethernet indicator
- ⑦ Module name
- ⑧ RS-485 connector, digital input points, power input point, earth point
- ⑨ DIN rail connector

③ Specifications

■ Ethernet Interface

Interface	RJ-45 with Auto MDI/MDIX
Transmission method	Ethernet Type II
Transmission cable	Category 5e, 100m (Max)
Transmission speed	10/100 Mbps Auto-Detection
Network protocol	ICMP, IP, TCP, UDP, DHCP, SMTP, Modbus OVER TCP/IP, Ethernet/IP, Delta Configuration

