

2014-04-30



5011674904-EM06

IFD9506

Instruction Sheet

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Ethernet Converter

Ethernet 轉換器

Ethernet 网关

■ RS-485 Interface	
Connector	RJ-11
Transmission cable	Telecom Cable, 1200 m (Max)
Transmission speed	110, 150, 300, 600, 1,200, 2,400, 4,800, 9,600, 19,200, 38,400, 57,600, 115,200 bps
Communication format	Stop bit: 1.2 Parity bit: None, Odd, Even Data bit: 7,8 ASCII/RTU
Communication protocol	MODBUS, User Define
■ RS-232 Interface	
Connector	Mini DIN
Transmission cable	DVPACAB215 / DVPACAB230 / DVPACAB2A30
Transmission speed	110, 150, 300, 600, 1,200, 2,400, 4,800, 9,600, 19,200, 38,400, 57,600, 115,200 bps
Communication format	Stop bit: 1.2 Parity bit: None, Odd, Even Data bit: 7,8 ASCII/RTU
Communication protocol	MODBUS, Delta Configuration, User Define
■ Terminal Block	
Connector	Feed-through terminal 10PIN
Transmission cable	Twisted pair
Transmission speed	110, 150, 300, 600, 1,200, 2,400, 4,800, 9,600, 19,200, 38,400, 57,600, 115,200 bps
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:±1KV, Communication I/O: ±0.5KV RS (IEC 61131-2, IEC 61000-4-3): 80MHz ~ 1GHz, 10V/m. 1.4GHz ~ 2.0GHz, 10V/m CS (IEC61131-2, IEC 61000-4-6): 150KHz ~ 80MHz, 3V/m Surge (Biwave IEC61132-2, IEC61000-4-5): Power line 0.5KV DM, Ethernet 0.5KV CM, RS-485 0.5KV CM
Operation/storage	Operation: 0°C ~ 55°C for UL, 0°C ~ 60°C for CE (temperature), 5 ~ 95% (humidity), pollution degree 2 Storage: -25°C ~ 70°C (temperature), 5 ~ 95% (humidity)
Vibration/shock immunity	International standards: IEC61131-2, IEC68-2-6 (TEST Fc)/IEC61131-2 & IEC 68-2-27(TEST Ea)
Certificates	

■ 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

■ Communication Parameter Setting

When users use IFD9506 for the first time, they can set the network and the MODBUS (RS-232/RS-485) communication parameters by means of the external switch and DCISoft. The external switch can be used to set the communication address, the data format, and the baud rate. DCISoft is used to set the parameters such as IP address. Users can set the communication through RS-232 or Ethernet. Please connect the computer and IFD9506 by RS-232 or the Ethernet cable before doing the setting.

Setting the communication parameter by the software:

- Opening DCISoft: Enter "Communication Setting" in "Tools". Choose "Ethernet" or "RS-232" in "Connection Setup", and click "OK". Click "Search" on the task bar to search for IFD9506. Finally, click the picture twice to enter the page.
- Setting the network: Enter the basic setting page, choose either "Serial Master" or "Serial Slave" as the master configuration, and set the network parameters. The default IP address is 192.168.1.5. When users need to convert the Ethernet packet into the RS-232/RS-485 data, they have to choose the master mode. When users need to convert the RS-232/RS-485 data into the Ethernet packet, they have to choose the slave mode.

**Warning**

.....**ENGLISH**

EN ✂ IFD9506 is an OPEN-TYPE device. It should be installed in a control cabinet free of airborne dust, humidity, electric shock and vibration. To prevent non-maintenance staff from operating IFD9506, or to prevent an accident from damaging IFD9506, the control cabinet in which IFD9506 is installed should be equipped with a safeguard. For example, the control cabinet in which IFD9506 is installed can be unlocked with a special tool or key.

EN ✂ DO NOT connect AC power to any of I/O terminals, otherwise serious damage may occur. Please check all wiring again before IFD9506 is powered up. After IFD9506 is disconnected, Do NOT touch any terminals in a minute. Make sure that the ground terminal ⑩ on IFD9506 is correctly grounded in order to prevent electromagnetic interference.

FR ✂ IFD9506 est un module OUVERT. Il doit être installé que dans une enceinte protectrice (boîtier, armoire, etc.) saine, dépourvue de poussière, d'humidité, de vibrations et hors d'atteinte des chocs électriques. La protection doit éviter que les personnes non habilitées à la maintenance puissent accéder à l'appareil (par exemple, une clé ou un outil doivent être nécessaire pour ouvrir a protection).

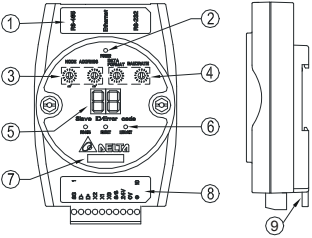
FR ✂ Ne pas appliquer la tension secteur sur les bornes d'entrées/Sorties, ou l'appareil IFD9506 pourra être endommagé. Merci de vérifier encore une fois le câblage avant la mise sous tension du IFD9506. Lors de la déconnection de l'appareil, ne pas toucher les connecteurs dans la minute suivante. Vérifier que la terre est bien reliée au connecteur de terre ⑩ afin d'éviter toute interférence électromagnétique.

● Introduction

■ Features

Thanks for using the Delta industrial network converter. IFD9506 is the Ethernet converter. It supports the protocol of the standard MODBUS TCP (eight sets of MODBUS TCP clients and sixteen sets of MODBUS TCP servers). It supports eight sets of IP filters which filtering the accessible IP address. The network speed can be up to 100 Mbps, and three external digital input points which can trigger the alarm to send the email is built in IFD9506. Besides, IFD9506 is equipped with the cache and the function of resending the serial communication which fails. The communication and the power supply are isolated from each other. Users can enjoy high-speed Ethernet and high stability at the same time.

■ 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

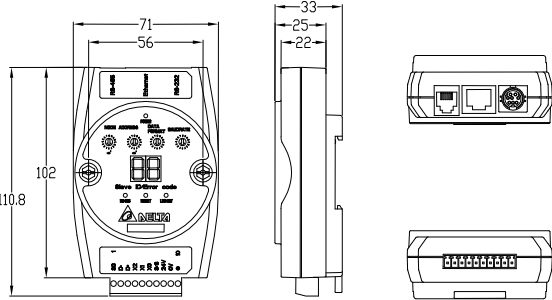
⑧ RS-485 connector, digital input points, power input point, earth point

⑨ DIN rail connector

● Specifications	
■ Ethernet Interface	
Connector	RJ-45 with Auto MDI/MDIX
Transmission cable	Category 5e, 100m (Max)
Transmission speed	10/100 Mbps Auto-Detection
Network protocol	ICMP, IP, TCP, UDP, DHCP, SMTP, MODBUS TCP, Delta Configuration

● Installation

■ Dimension



Unit: mm

■ Station Address Setting

Switch setting	Content
01 ... F7	Valid MODBUS station 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