

PPDS-700-IP67 Quick Start

v1.3, Oct. 2018

What's in the box?

The package includes the following items:



Waterproof RJ-45 Plug x5



Quick Start x1 (This Document)



Waterproof Power Plug x1

Related Information

• PPDS-700-IP67 Series Product Page:

http://www.icpdas.com/root/product/solutions/industrial_communication/pds/ppds-700-ip67.html

• Documentation:

http://ftp.icpdas.com/pub/cd/8000cd/napdos/pds/ds_pds-700/document/

• Firmware:

http://ftp.icpdas.com/pub/cd/8000cd/napdos/pds/ds_pds-700/firmware/

- M-7015 Product Page (optional): http://www.icpdas.com/products/Remote_IO/m-7000/m-7015.htm
- How to make power and RJ-45 plugs, refer to **Section 2.11** "Waterproofing Attachment Installation" of user manual for detail information.

Appearance & Pin Assignments

Ethernet Port & Power Supply



Power Plug DC +12 ~ +48 VDC



OND		
Pin	Name	
1	F.G.	
2		
3	Init	
4	+Vs	
5	GND	

Serial Port (COM1 ~ COM4)



LED Indicators

Name	Notation	Color
System	Sys.	Red
Ethernet	Link/Act (E1)	Green
	10/100M (E1)	Orange
	RxD	Green
	TxD	Orange

Pin	5-wire RS-232	2-wire RS-485
1		
2	RTS	
3	GND	GND
4	TxD	
5	RxD	DATA+
6		DATA-
7	CTS	
8		

2 Connecting the Power and Host PC

- Make sure your PC has workable network settings.
 Disable or well configure your Windows firewall and Anti-Virus firewall first, else the "Search Servers" on page 4 may not work. (Please contact with your system Administrator)
- 2) Connect both the PPDS-700-IP67 and your PC to the same sub network or the same Ethernet Switch.
- Connect the Modbus device (e.g. M-7015, optional) to PPDS-700-IP67 on COM2 (RS-485 bus).



4) Supply power to the PPDS-700-IP67 and Modbus device (e.g. M-7015, optional) PPDS-700-IP67: PoE or +12 ~ +48 V_{DC} power.



Notes:

- 1. The wiring and supply power method depends on your Modbus device.
- 2. Refer to the pin assignments of PPDS-700-IP67 to make RJ45 wiring and power cables.

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3 Configuring Network Settings

1) Install VxComm Utility, which can be obtained from the ICP DAS web site or FTP site:



http://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/vxcomm_driver/windows/

ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/vxcomm_driver/windows/

2) Double click the VxComm Utility shortcut on the desktop.

3) Click the "Search Servers" button to search your PPDS-700-IP67.

4) Double click the name of PPDS-700-IP67 to open the "**Configure Server (UDP)**" dialog box.



Factory Default Settings of PPDS-700-IP67:

IP Address	192.168.255.1
Subnet Mask	255.255.0.0
Gateway	192.168.0.1

5) Contact your Network Administrator to obtain a correct network configuration (such as **IP/Mask/Gateway**). Enter the network settings and then click "**OK**". The PPDS-700-IP67 will use the new setting 2 seconds later.

Configure Server (UDP)						
Server Name :	PPDS-742-	IP67					
DHCP:	0: OFF	•	Sub-net Mask :	255.255.255.0	Alias:		(7 Chars)
IP Address :	10.0.8.13	6	Gateway :	10.0.8.255	MAC:	00:0D:E0	:30:11:01
Contact your Ne	twork Admini:	strator to ge	t correct configura	ation before any chang	je.	ОК	Cancel

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6) Wait 2 seconds and then click the "Search Servers" button again to ensure the PPDS-700-IP67 is working well with new configuration.

ile <u>S</u> erver <u>P</u> ort <u>T</u> ools				
	Configure Server		Configure Port	
		Port	Virtual COM	
Where remote serial derices become part of your PC				
Add Server(s)	Click your PP	DS-700)-IP67)
Add Server(s) Remove Server	Click your PP	2DS-700)-IP67)
Add Server(s) Remove Server Web	Click your PP	PDS-700)-IP67	Gi
Add Server(s) Remove Server Web	Click your PP	PDS-70(PAddress 0.0.8.13	D-IP67) G: 1

Configuring Virtual COM Ports

- 1) Click the "Add Server[s]" button.
- 2) Assign a COM Port number and click "OK" to save your settings.

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💕 ¥xComm Utility [v2.13.07Å, °	
File Server Port Tools	Adding Servers
	IP Range Advanced Options
	Server Information
	Server Name : Get name automatically
Where remote serial devices become part of your PC	IP Range Start : 10.0.8.13
Add Server(s)	IP Range End : 10.0.8.13
	Includes the following special IP :
Remove Serve	📕 🗆 0 (Net) 🔽 254 (Gateway) 👘 255 (Broadcast)
Veb Na	Virtual COM and I/O Port Mappings 2
Search Servers	COM Port COM2
	Fixed bardrat COM2
Configuration (UDP)	Mans virtual (COM6 rt VO" on servers.
Fxit	COM7
	Disable purge COM8
Status	COM1
Ļ	COM13

3) Click on PPDS-700-IP67 name and check the virtual COM port mappings on the PC.

of VxComm Utility [v2.13.0	17Å, Sep.06, 2017]			
<u>File S</u> erver <u>P</u> ort <u>T</u> ools		(
	Configure Server		Check the COM P	ort
driver & utility		Port	в в	
Where remote serial devices become part of your PC	PPDS-742-IP67 (10.0.8.13)	Port I/0 Port 1	0 RUserved COM5	
	6	Port 2	COM6	
Add Server(s)		Port 3		
X Remove Server		<		
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4) Click "<u>Tools</u>" → "<u>Restart Driver</u>", and click the "Restart Driver" button.



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Test Modbus Device via Virtual COM Ports

1) Select the "Modbus RTU Master" item from the "Tools" menu to open the Modbus RTU Master Utility.



- 2) Select your virtual COM port and baud rate (e.g. COM6/115200) on PPDS-700-IP67, and then click the "Open" button.
- 3) Refer to "<u>Protocol Description</u>" and type the command in the command field then click the "Send command" button. If the response data is correct, it means the test is success.



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Modbus/TCP to Modbus/RTU Gateway

1) Open web browser, type the URL address of the PPDS-700-IP67 and press "Enter" to connect to the PPDS-700-IP67.



- 2) Click the "Modbus Gateway Setting" in the web page to configure the COM ports, as follows:
 - 2-1: Select appropriate COM Port (e.g. COM2).
 - 2-2: Assign a Numbers of Modbus device (e.g. 4).
 - 2-3: Select Modbus type (e.g. 1 "Modbus RTU").

2-4: Checked the "Save to EEPROM" and "Apply the current setting" and then click the "Update" button to update it to PPDS-700-IP67.

<u>Firmware</u>		Configure COM PORT		
<u>Version</u>	Device ID for PDS-782			
Network	Port (COM0 for ALL PORTS)	2-	1 🤇	COM 2 V
<u>Settings</u>	Number of ID for serial Modbus	device 2-2	2 <	4 0:Disable
COM Port	ID offset for this port			0:Disable
Settings	Timeout(default=300 ms)			ms
<u>Modbus</u>	Type(0:ASCII, 1:RTU)	2.	-3	1
2 <u>Gateway</u>	TCP/UDP port			
<u>Settings</u>	☑ Save to EEPROM			
Misc. Settings	Reload from EEPROM	2-4		
	Exppiy the current settings			
	Update			

3) Check the COM Port for Modbus gateway settings.

COM Port for Modbus Gateway Settings	
COM 1: #ID=0:Disable 3	
COM 2: #ID=4:Range=1(0x01)~4(0x04), timeout=300 ms, type=RTU, ID offset=0	
COM 3: #ID=0:Disable	
COM 4: #ID=0:Disable	

 4) Back to VxComm Utility, select the "Modbus TCP Master" item from the "Tools" menu to open the Modbus TCP Master Utility.



- 5) Enter the IP address of PPDS-700-IP67 and then click "Connect" button to connect the PPDS-700-IP67.
- 6) Refer to "<u>Protocol Description</u>" and type command in the command field then click the "Send Command" button. If the response data is correct, it means the test is success.

MBICP Ver. 1.1.5	
ModbusTCP IP 10.0.8.13 5 Port 502 Connect Disconnect	Protocol Description FC1 Read multiple coils status (0xxxx) for D0 [Prefixed 6 bytes for Modbus/TCP protocol] Byte 0: Transaction identifier - copied by server - usually 0 Byte 1: Transaction identifier - copied by server - usually 0 Byte 2: Protocol identifier=0 Byte 3: Protocol identifier=0 Byte 4: Field Length (upper byte)=0
Polling Mode (No Waiting) Start Stop Timer Mode (Fixed Period) Interval 100 ms Set Start Stop	Statistic Difference in Packet Quantity Difference in Packet Quantity Responses Total Packet Size (Bytes) 0 0 0 Packet Quantity Sent 0 0 0 Polling or Timer Mode (Date/Time) 0 Polling Mode Timing (ms) Start Time Start Time Max 000 Stop Time Stop Time 000 000
[Byte0] [Byte1] [Byte2] [Byte3] [Byte4] [By 1 2 0 0 0 6 2 4 0 0 0 6 6 [Byte0] [Byte1] [Byte2] [Byte3] [Byte4] [By 01 02 00 00 00 06> 02 04 00 00 00 06	te5] [[Send Command]] te5] [Byte0] [Byte1] [Byte2] [Byte3] 01 02 00 00 00 F> 02 04 0C 80 00 80 00 80 00 80 00 80 00 80 00
Clear	Lists EXIT Program

Note: The Modbus command settings depends on your Modbus device.