

PDS(M)-755(D)
PPDS(M)-755(D)-MTCP

Programmable (1x RS-232 and 4x RS-485)
Serial-to-Ethernet Device Server

Features

- Incorporate Serial Devices in an Ethernet network
- "Virtual COM" Extend COM Ports
- Virtual COM supports 32-bit and 64-bit Windows 7 SP1/10/2012/2016
- Supports Modbus TCP to RTU/ASCII Gateway
- Powerful Programmable Device Server
- Watchdog Timer suitable for use in harsh environments
- Serial Port +/-4 kV ESD Protection Circuit
- Self-Tuner ASIC Controller on the RS-485 Port
- Built-in High Performance MiniOS7 from ICP DAS
- Palm-Sized with multiple Serial Ports

Introduction

The PDS-700 series is a family of Programmable Device Servers, also known as "Serial-to-Ethernet gateway", that are designed for linking RS-232/422/485 devices to an Ethernet network. The user-friendly VxComm Driver/Utility allows users to easily turn the built-in COM ports of the PDS-700 series into standard COM ports on a PC. By virtue of its protocol independence, a small-core OS and high flexibility, the PDS-700 series is able to meet the demands of every network-enabled application.

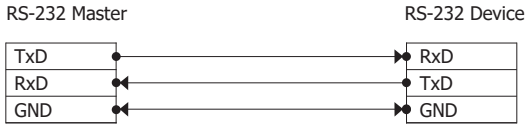
The PDS-700 series includes a powerful and reliable Xserver programming structure that allows you to design your robust Ethernet applications in one day. The built-in, high-performance MiniOS7 boots the PDS-700 up in just one second and gives you fastest responses. It also works as a Modbus TCP to RTU/ASCII gateway that supports most SCADA/HMI communications based on the Modbus/TCP protocol.

The PPDS-700-MTCP series features true IEEE 802.3af-compliant (classification, Class 1) Power over Ethernet (PoE) using a standard category 5 Ethernet cable to receive power from a PoE switch like the NS-205PSE. The PDSM-700 is the PDS-700 with Metal Case (RoHS) and the PPDSM-700-MTCP is the PPDS-700-MTCP with Metal Case (RoHS). Metal Case version includes stronger protection than PDS-700 and PPDS-700-MTCP.

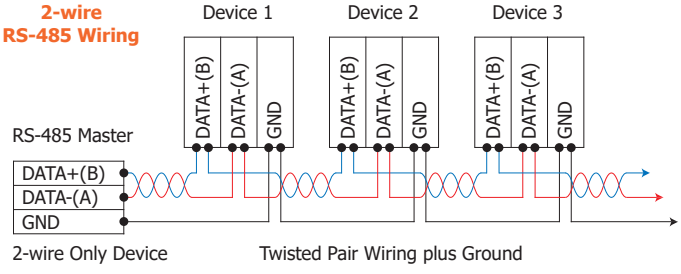
The PDS(M)-755(D) and PPDS(M)-755(D)-MTCP is equipped with 1 RS-232 port and 4 RS-485 ports. The removable on-board terminal block connector is designed for easy and robust wiring in industrial situations.

Wiring

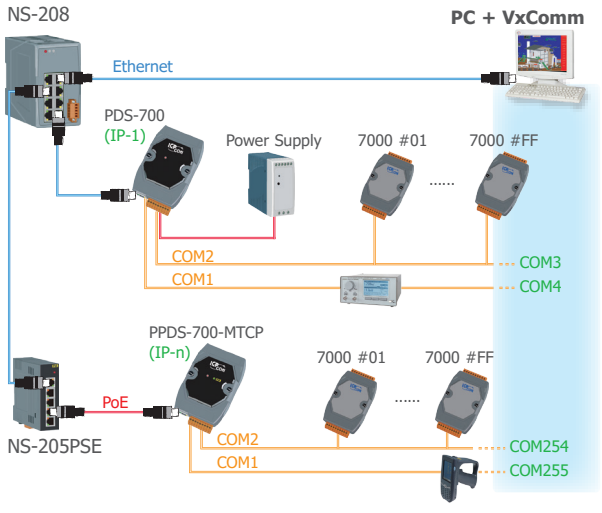
3-wire RS-232 Wiring



2-wire RS-485 Wiring



Applications



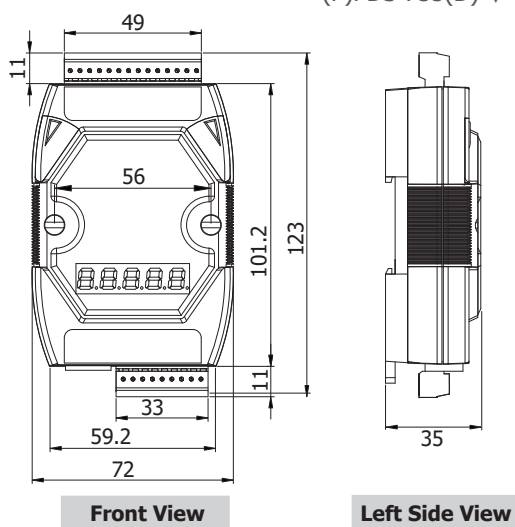
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System Specifications

Models		PDS-755 PDSM-755	PDS-755D PDSM-755D	PPDS-755-MTCP PPDSM-755-MTCP	PPDS-755D-MTCP PPDSM-755D-MTCP
CPU					
CPU		80186, 80 MHz or compatible			
SRAM		512 KB			
Flash Memory		Flash ROM: 512 KB; Erase unit is one sector (64 KB); 100,000 erase/write cycles			
EEPROM		16 KB; Data retention: 40 years; 1,000,000 erase/write cycles			
Built-in Watchdog Timer		Yes			
Communication Interface					
Non-isolated	COM1	RS-232 (TxD, RxD, RTS, CTS, GND)			
	COM2	RS-485 (D2+, D2-, GND)			
	COM3	RS-485 (DATA+, DATA-, GND)			
	COM4	RS-485 (DATA+, DATA-, GND)			
	COM5	RS-485 (DATA+, DATA-, GND)			
Ethernet		10/100 Base-TX, RJ-45 port (Auto-negotiating, auto MDI/MDI-X, LED indicator)			
PoE		-		IEEE 802.3af	
COM Port Formats					
Data Bit		7, 8: for COM1 and COM2，5, 6, 7, 8: for COM3 and COM5			
Parity		None, Even, Odd, Mark, Space None parity is required when using 8 data bits and 2 stop bits on COM1/COM2.			
Stop Bit		1, 2: for COM1 ~ COM5			
Baud Rate		115200 bps max.			
LED Indicators					
5-digit 7 Segment		-	Yes	-	Yes
System		Red			
PoE		-		Green	
Power					
Protection		Power Reverse Polarity Protection			
Required Supply Voltage		+10 VDC ~ +30 VDC		PoE or +12 VDC ~ +48 VDC	
Power Consumption		2.0 W	2.7 W	2.2 W	2.9 W
Mechanical					
Flammability		Fire Retardant Materials (UL94-V0 Level)			
Dimensions (W x L x H)		(P)PDS: 72 mm x 35 mm x 123 mm，(P)PDSM: 102 mm x 29 mm x 125 mm			
Installation		(P)PDS-700 Series: DIN-Rail or Wall mounting, (P)PDSM-700 Series: Wall mounting			
Casing		Metal for PDSM/PPDSM，Plastic for other			
Environment					
Operating Temperature		-25 °C ~ +75 °C			
Storage Temperature		-40 °C ~ +80 °C			
Humidity		5 ~ 90% RH, non-condensing			

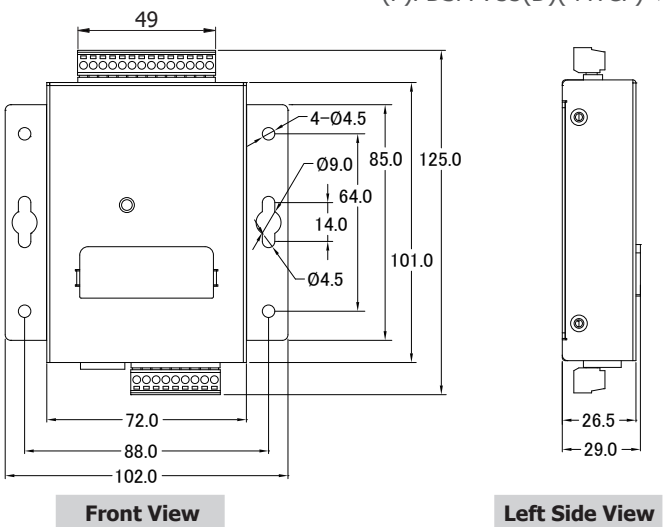
Dimensions (Units: mm)

(P)PDS-755(D) ▼



Front View　　Left Side View

(P)PDSM-755(D)(-MTCP) ▼

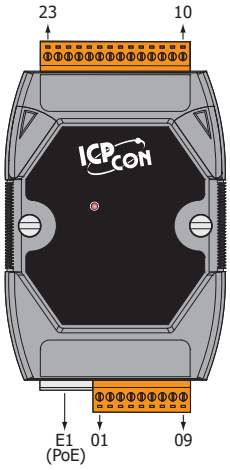


Front View　　Left Side View

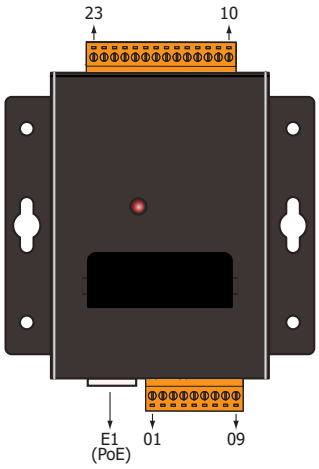
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Pin Assignments

Terminal No.		Pin Assignment
E1		Link/Act 10/100M
COM1	01	CTS1
	02	RTS1
	03	RxD1
	04	TxD1
	05	INIT*
COM2	06	D2+
	07	D2-
	08	(R)+Vs
	09	(B)GND



(P)PDS-755(D)(-MTCP)



(P)PDSM-755(D)(-MTCP)

Terminal No.		Pin Assignment
COM5	23	DATA+
	22	DATA-
	21	--
	20	--
	19	--
	18	--
COM4	17	DATA+
	16	DATA-
	15	--
	14	--
	13	--
	12	--
COM3	11	DATA+
	10	DATA-

Ordering Information

PDS-755 CR	Programmable (1x RS-232 and 4x RS-485) Serial-to-Ethernet Device Server (RoHS) Includes CA-0910 Cable
PDS-755D CR	Programmable (1x RS-232 and 4x RS-485) Serial-to-Ethernet Device Server and LED Display (RoHS) Includes CA-0910 Cable
PPDS-755-MTCP CR	Programmable (1x RS-232 and 4x RS-485) Serial-to-Ethernet Device Server, PoE and Modbus Gateway (RoHS) Includes CA-0910 Cable
PPDS-755D-MTCP CR	Programmable (1x RS-232 and 4x RS-485) Serial-to-Ethernet Device Server, PoE, Modbus Gateway and LED Display (RoHS) Includes CA-0910 Cable
PDSM-755 CR	Programmable (1x RS-232 and 4x RS-485) Serial-to-Ethernet Device Server (Metal Case) (RoHS) Includes CA-0910 Cable
PDSM-755D CR	Programmable (1x RS-232 and 4x RS-485) Serial-to-Ethernet Device Server and LED Display (Metal Case) (RoHS) Includes CA-0910 Cable
PPDSM-755-MTCP CR	Programmable (1x RS-232 and 4x RS-485) Serial-to-Ethernet Device Server, PoE and Modbus Gateway (Metal Case) (RoHS) Includes CA-0910 Cable
PPDSM-755D-MTCP CR	Programmable (1x RS-232 and 4x RS-485) Serial-to-Ethernet Device Server, PoE, Modbus Gateway and LED Display (Metal Case) (RoHS) Includes CA-0910 Cable

Accessories

CA-0903 CR	DB9 Female to 5-wire Cable [RS-232], 30cm (RoHS)
NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch (RoHS)
NS-205PSE CR	Unmanaged 5-port 10/100 Mbps PoE (PSE) Ethernet Switch (RoHS)

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