



## NEW PDS-734(D) Available soon PPDS-734(D)-MTCp

Programmable Device Server with  
1 RS-232 port, 1 RS-485 port and 1 RS-422/485 port

### 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.

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 PPDS-700-MTCp also works as a Modbus/TCP to Modbus/RTU gateway that supports most SCADA/HMI communications based on the Modbus/TCP protocol.

The PDS-734(D) and PPDS-734(D)-MTCp is equipped with 1 RS-232 port, 1 RS-485 port, 1 RS-422/485 port and DI/DO. The removable on-board terminal block connector is designed for easy and robust wiring in industrial situations.

### Applications

Factory, Building and Home Automation

### I/O Specifications

Models: PDS-734/PDS-734D/PPDS-734-MTCp/PPDS-734D-MTCp	
<b>Digital Output</b>	
Output Channel	4
Output Type	Open Collector (Sink/NPN)
Load Voltage	30 V <sub>DC</sub> , max.
Load Current	100 mA, max.
Isolated Voltage	Non-isolated
<b>Digital Input</b>	
Input Channel	4
Input Type	Source (Dry Type), Common Ground
Off Voltage Level	+1 V max.
On Voltage Level	+3.5 ~ +30 V
Isolate Voltage	Non-isolated
Counters	Channels: 4
	Max. Count: 16-bit (65535)
	Max. Input Frequency: 100 Hz Min. Pulse Width: 5 ms

## RS-232/RS-422/RS-485

### Features

- Incorporate Serial Devices in an Ethernet network
- Virtual COM on Windows NT 4.0, 2000/XP/2003 and Vista32
- Powerful Programmable Device Server
- Watchdog Timer suitable for use in harsh environments
- Power Reverse Polarity Protection
- Serial Port +/-4 kV ESD Protection Circuit
- Self-Tuner ASIC Controller on the RS-485 Port
- 5-digit LED Display (for versions with a display)
- RoHS Compliant with no Halogen
- Built-in High Performance MiniOS7 from ICP DAS
- 10/100 Base-TX Ethernet, RJ-45 Port (Auto-negotiating, auto MDI/MDI-X, LED indicator)
- PPDS-734(D)-MTCp supports Modbus/TCP and Modbus/RTU
- PPDS-734(D)-MTCp supports PoE (IEEE 802.3af, Class 1)
- Supports D/I, Latched D/I and Counter Functions
- Low power consumption
- Palm-Sized with multiple Serial Ports

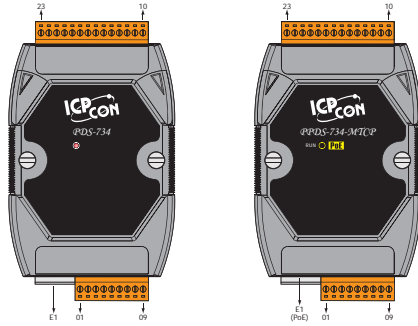


### System Specifications

Models	PDS-734	PDS-734D	PPDS-734-MTCp	PPDS-734D-MTCp
<b>CPU</b>				
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			
<b>Communication Interface</b>				
Non-isolated	COM1	RS-232 (Tx/D, Rx/D, RTS, CTS, GND)		
	COM2	RS-485 (D2+, D2-, GND)		
	COM3	RS-422 (Tx/D+, Tx/D-, Rx/D+, Rx/D-, GND) or RS-485 (D3+, D3-, GND)		
Ethernet	10/100 Base-TX, RJ-45 port (Auto-negotiating, auto MDI/MDI-X, LED indicator)			
PoE	-	-	IEEE 802.3af	
<b>COM Port Formats</b>				
Data Bit	7, 8: for COM1 and COM2 5, 6, 7, 8: for COM3			
Parity	None, Even, Odd, Mark, Space			
Stop Bit	1: for COM1 and COM2 1, 2: for COM3			
Baud Rate	115200 bps max.			
<b>LED Indicators</b>				
5-digit 7 Segment	-	Yes	-	Yes
System	Red			
PoE	-	-	Green	
<b>Power</b>				
Protection	Power Reverse Polarity Protection			
Required Supply Voltage	+10 V <sub>DC</sub> ~ +30 V <sub>DC</sub> (non-regulated)		PoE or +12 V <sub>DC</sub> ~ +48 V <sub>DC</sub> (non-regulated)	
Power Consumption	2.0 W	2.7 W	2.2 W	2.9 W
<b>Mechanical</b>				
Flammability	Fire Retardant Materials (UL94-V0 Level)			
Dimensions	72 mm x 123 mm x 35 mm (W x H x D)			
Installation	DIN-Rail or Wall mounting			
<b>Environment</b>				
Operating Temperature	-25 °C ~ +75 °C			
Storage Temperature	-40 °C ~ +80 °C			
Humidity	5 ~ 90% RH, non-condensing			

**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

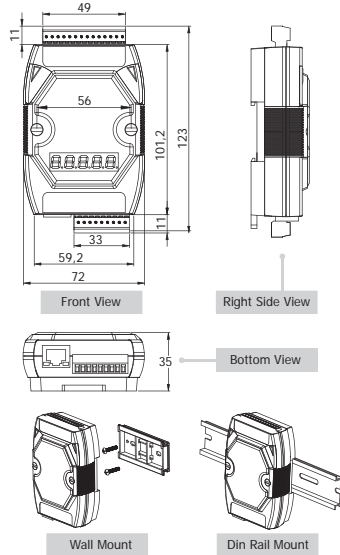


Terminal No.	Pin Assignment
23	DO3
22	DO2
21	DO1
20	DO0
19	DO.PWR
18	GND
17	D13
16	D12
15	D11
14	D10
COM3	13 RxD3-
	12 RxD3+
11	TxD3-/D3-
10	TxD3+/D3+

**Wiring**

Input Type	DI Value as 0	DI Value as 1
Relay Contact	Relay ON 	Relay Off 
	Voltage < 1V      Voltage > 3.5V	
TTL/CMOS Logic	Logic Level Low 	Logic Level High 
Open Collector	Open Collector On 	Open Collector Off 
	Output Type	
Drive Relay	DO Command as 1 Relay ON 	DO Command as 0 Relay Off 
	Resistance Load 	

**Dimensions (Unit: mm)**



**Ordering Information**

PDS-734 CR	Programmable Device Server with 1 RS-232 port, 1 RS-485 port and 1 RS-422/485 port (RoHS) Includes One CA-0910 Cable
PDS-734D CR	Programmable Device Server with 1 RS-232 port, 1 RS-485 port, 1 RS-422/485 port and an LED Display (RoHS) Includes One CA-0910 Cable
PPDS-734-MTCP CR	Programmable Device Server with PoE, Modbus/TCP, 1 RS-232 port, 1 RS-485 port and 1 RS-422/485 port (RoHS) Includes One CA-0910 Cable
PPDS-734D-MTCP CR	Programmable Device Server with PoE, Modbus/TCP, 1 RS-232 port, 1 RS-485 port, 1 RS-422/485 port and an LED Display (RoHS) Includes One CA-0910 Cable

**Accessories**

GPSU06U-6	24 Vdc/0.25 A, 6 W Power Supply
MDR-20-24	24 Vdc/1 A, 24 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48 Vdc/0.52 A, 25 W Power Supply with Din-Rail Mounting
CA-0903	9-Pin Female D-Sub and RS-232 Connector Cable, 30 cm Cable
CA-0910	9-Pin Female D-Sub and 3-wire RS-232 Cable, 1 m Cable
NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch (RoHS)
NS-205PCE CR	Unmanaged Ethernet Switch with 4 PoE Ports and 1 RJ-45 Uplink (RoHS)