

**CON-422-PE25**

RS-232 To RS-422 Converter – DB25

Datasheet Revision 2.3



**GENERAL FEATURES:**

- Plug-and-Play (hot-pluggable)
- Data direction auto-turaround - no flow control necessary
- Port powered - no external power needed
- Built-in surge and static protection
- 5 year manufacturer's warranty
- RoHS, CE, and FCC certified

**DESCRIPTION:**

The SerialComm CON-422-PE25 is a bi-directional port powered RS-232 to RS-422 converter which converts a full-duplex RS-232 port to a full-duplex four-wire RS-422 port. A built-in data direction auto-turaround feature automatically enables the RS-422 driver when data is present from the RS-232 port, eliminating the need for software drivers, and making the device fully plug-and-play. The CON-422-PE25 has a db-25 female connector on the RS-232 serial port, and db-25 male connector on the RS-422 port. The unit is enclosed in a rugged ABS housing, and is powered from the RS-232 data lines; no external power is required.

**CERTIFICATIONS:**



**TROUBLESHOOTING INSTRUCTIONS:**

Using one CON-422-PE25 unit:

1. Check that all connections comply with the connection diagrams.
2. Perform a loop back test on one unit:
  - a) Connect the TX+ to RX+ and TX- to RX- on the RS-422 port.
  - b) Connect the RS-232 port to the PC RS-232 port.
  - c) Running a hyper terminal program on the PC, send ASCII characters to the CON-422-PE25 converter from one PC port, and check that the characters are received at the same PC port. This tests that the transmit and receive functions of the CON-422-PE25 unit is working properly.

Using two CON-422-PE25 units:

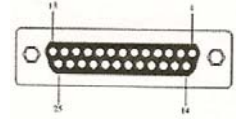
1. Check that all connections comply with the connection diagrams.
2. Perform a loop back test on two units:
  - a) Connect the two RS-422 ports.
  - b) Connect the two RS-232 ports to two PC RS-232 ports.
  - c) Running hyper terminal programs on both PCs, send ASCII characters to the CON-422-PE25 converter from one PC port, and check that the characters are received at the 2<sup>nd</sup> PC port. Repeat the test in the opposite direction. This tests that the transmit and receive functions of both CON-422-PE25 units are working properly.

**PINOUT CONFIGURATION:**

RS-232 SIDE – DB25 FEMALE

SIGNAL	DCD	DTR	RTS	CTS	TX	RX	GND
PIN #	8	20	4	5	2	3	7
FUNCTION	TIED		TIED		TX	RX	GND

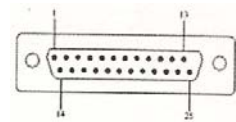
FEMALE – DB25



RS-422 SIDE – DB25 MALE

SIGNAL	GND	T+	T-	R-	R+
PIN #	7	10	11	12	13
FUNCTION	GND	T+	T-	R-	R+

MALE – DB25



**SPECIFICATIONS:**

COMMUNICATION	
<b>STANDARDS:</b>	EIA/TIA RS-232C Standard and RS-422 Standard
<b>BAUD RATES:</b>	From 300 bps to 115,200 bps
<b>CONNECTOR TYPES:</b>	RS-232 Side: DB25 Female and RS-422 Side: DB25 Male
<b>DISTANCE:</b>	RS-232 Side: 16 ft (5m) and RS-422 Side: up to 4000 ft (1.2km)
<b>MAX # OF CONNECTIONS:</b>	32 Connection Drops
ELECTRICAL	
<b>POWER SOURCE:</b>	Port Powered From RS-232 Data Lines
<b>CURRENT CONSUMPTION:</b>	Less Than 10 mA
<b>STATIC PROTECTION:</b>	15KV Electric Static Discharge (ESD) Protection
<b>SURGE PROTECTION:</b>	600W/Sec Surge Protection
MECHANICAL	
<b>HOUSING:</b>	Rugged ABS
<b>WEIGHT:</b>	1.3oz (38 grams)
<b>DIMENSIONS:</b>	2.41" X 2.19" X 0.67" (61.0 mm X 55.6 mm X 16.9 mm)
ENVIRONMENTAL	
<b>OPERATING TEMP.:</b>	-4° F to 140° F (-20°C to 60° C)
<b>STORAGE TEMP.:</b>	-40° F to 185° F (-40°C to 85° C)
<b>OPERATING HUMIDITY:</b>	5% To 95% - No Condensation
QUALITY	
<b>PRODUCT SAFETY:</b>	CE, FCC and RoHS Conformance Certified
<b>QUALITY MANAGEMENT</b>	Manufactured and Distributed to ISO 9001:2008
<b>RELIABILITY:</b>	Low Failure Rate – 99+% Reliability Since Inception
<b>WARRANTY:</b>	5 Year Replacement Warranty

# APPLICATIONS:

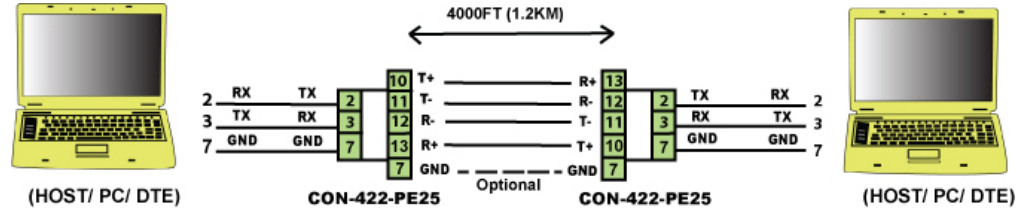


FIGURE 1: EXTENDING RS-232 DATA DISTANCE

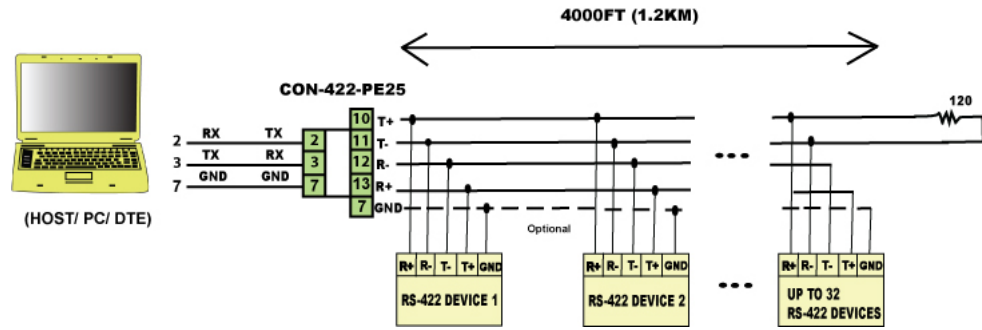


FIGURE 2: MASTER/SLAVE MULTIPLE DROP CONFIGURATION