

CON-422-PE25

RS-232 To RS-422 Converter – DB25

Datasheet Revision 2.4



GENERAL FEATURES:

- Plug-and-Play (hot-pluggable)
- Data direction auto-turnaround - 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-turnaround 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:

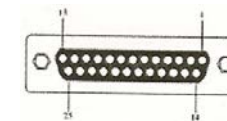
1. Check that all connections comply with the connection diagrams.
2. Perform a loop back test on two units:
 - a) Connect the two RS-422 ports.
 - b) Connect the two RS-232 ports to two PC RS-232 ports.
 - c) Running hyper terminal programs on both PCs, send ASCII characters to the CON-422-PE25 converter from one PC port, and check that the characters are received at the 2nd 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

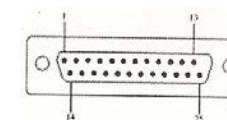
FEMALE – DB25



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

APPLICATIONS:

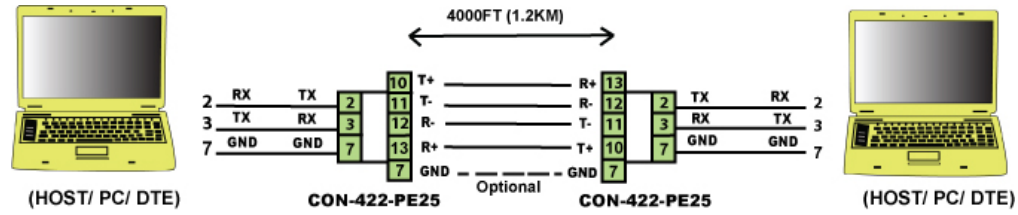


FIGURE 1: EXTENDING RS-232 DATA DISTANCE

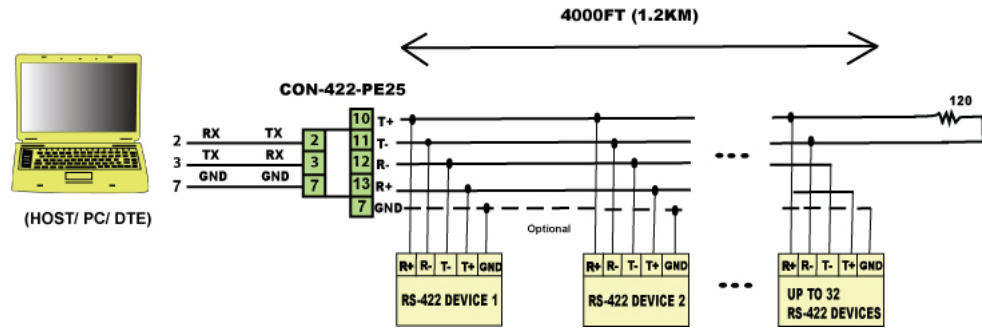


FIGURE 2: MASTER/SLAVE MULTIPLE DROP CONFIGURATION