

**CON-485-PI9**  
Compact Industrial  
RS-232 To RS-485 Converter  
Datasheet Revision 2.5



**GENERAL FEATURES:**

- Plug-and-Play (hot-pluggable)
- Slim built-in terminal block design
- Rugged industrial design
- 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-485-PI9 is a compact industrial bi-directional port powered RS-232 to RS-485 converter which converts a full-duplex RS-232C port to a half-duplex two-wire balanced RS-485 port. It has a compact design for space restricted applications. A built-in data direction auto-turnaround feature automatically enables the RS-485 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-485-PI9 has a db-9 female connector on the RS-232 serial port and 3 position terminal block on the RS-485 port. The terminal block unplugs for convenience. 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:**

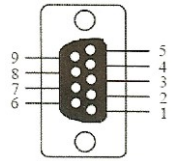
Using two CON-485-PI9 units:

1. Check that all connections comply with the connection diagrams.
2. Perform a loop back test:
  - a) Connect the two RS-485 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-485-PI9 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-485-PI9 units are working properly.

**PINOUT CONFIGURATION:**  
RS-232 SIDE – DB9 FEMALE

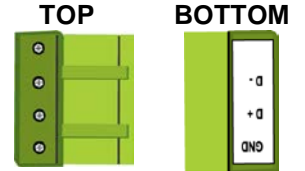
SIGNAL	DC D	DTR	DSR	RTS	CTS	TX	RX	GND
PIN #	1	4	6	7	8	2	3	5
FUNCTION	TIED			TIED		TX	RX	GND

**FEM. DB9**



**RS-485 SIDE – ATTACHED TERMINAL BLOCK**

**INDUSTRIAL CONVERTER**  
High Sensitivity, 128 Drops, High Temp



**SPECIFICATIONS:**

COMMUNICATION	
<b>STANDARDS:</b>	EIA/TIA RS-232C Standard and RS-485 Standard
<b>BAUD RATES:</b>	From 300 bps to 115,200 bps
<b>CONNECTOR TYPES:</b>	RS-232 Side: DB9 Female and RS-485 Side: 4-way Terminal Block
<b>DISTANCE:</b>	RS-232 Side: 16 ft (5m) and RS-485 Side: up to 4000 ft (1.2km)
<b>MAX # OF CONNECTIONS:</b>	128 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 Surge Protection
MECHANICAL	
<b>HOUSING:</b>	Rugged ABS
<b>WEIGHT:</b>	0.8oz (24 grams)
<b>DIMENSIONS:</b>	2.80" X 1.33" X 0.66" (71.2 mm X 33.8 mm X 16.8 mm)
ENVIRONMENTAL	
<b>OPERATING TEMP.:</b>	-40° F to 185° F (-40°C to 85° 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:

