CON-485-PI9
Compact Industrial
RS-232 To RS-485 Converter

Datasheet Revision 2.6

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
• CE, FCC, RoHS and REACH 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-232 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 DB9 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:

CERTIFYING LABS:

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 2nd 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

RS-485 SIDE – ATTACHED TERMINAL BLOCK

INDUSTRIAL CONVERTER
128 RS-485 Drops, High Temp Range

SPECIFICATIONS:

COMMUNICATION
STANDARDS: EIA/TIA RS-232C Standard and RS-485 Standard
BAUD RATES: From 300 bps to 115,200 bps
CONNECTOR TYPES: RS-232 Side: DB9 Female and RS-485 Side: 4-way Terminal Block
DISTANCE: RS-232 Side: 16 ft (5m) and RS-485 Side: up to 4000 ft (1.2km)
MAX # OF CONNECTIONS: 128 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: 0.8oz (24 grams)
DIMENSIONS: 2.80” X 1.33” X 0.66” (71.2 mm X 33.8 mm X 16.8 mm)

ENVIRONMENTAL
OPERATING TEMP.: -40° F to 185° F (-40°C to 85° 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, RoHS and REACH Third-party Certified
QUALITY MANAGEMENT: Manufactured and Distributed to ISO 9001:2015 QMS
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