

**ISO-232-8E**

Industrial RS-232 Isolator 8-Wire  
Datasheet Revision 2.4



**GENERAL FEATURES:**

- Plug-and-Play (hot-pluggable)
- High speed up to 115.2K baud
- 2500Vrms or 500VDC optical isolation
- Isolated TX, RX, RTS, CTS, DTR, DSR, RI and GND signals
- Industrial-grade - heavy duty housing
- Data direction auto-turnaround - no flow control necessary
- External power: 9 - 48VDC or 100-240VAC
- Built-in surge and static protection
- 5 year manufacturer's warranty
- RoHS, CE, and FCC certified

**DESCRIPTION:**

The SerialComm ISO-232-8E is an industrial grade high speed (up to 115.2K baud) bi-directional externally powered 2500V opto-isolated RS-232 isolator. The ISO-232-8E optically isolates the 8 lines: TX, RX, CTS, RTS, DTR, DSR, RI and GND. Isolation protects the RS-232 ports from voltage surges, lightning strikes, GND loops and noise conditions. The ISO-232-8E has a db-9 female connector on the RS-232 serial port, and db-9 male connector on the other RS-232 port. The unit is enclosed in a heavy duty aluminum housing, and is powered from an external power 12V DC or 100-240VAC power source.

**CERTIFICATIONS:**



**TROUBLESHOOTING INSTRUCTIONS:**

Using one ISO-232-8E unit:

1. Check that all connections comply with the connection diagrams.
2. Perform a continuity test on one unit:
  - a) Connect the power adapter to the ISO-232-8E
  - b) Connect the ISO-232-8E in between RS-232 path.
  - c) If there is continuity in the data stream then it is working. If the ISO-232-8E is not being powered properly it will not work at all.
  - d) When power is on the RED light will be on. When data is being transmitted the GREEN light will flash. When data is being received the YELLOW light will flash.

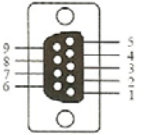
**PINOUT CONFIGURATION:  
RS-232 SIDE – DB9 FEMALE**

SIG.	TX	RX	DTR	DSR	RTS	CTS	R I	GND
PIN #	2	3	4	6	7	8	9	5
FUNCT.	TX	RX	DTR	DSR	RTS	CTS	R I	GND

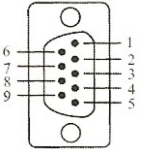
**RS-232 SIDE – DB9 MALE**

SIG.	TX	RX	DTR	DSR	RTS	CTS	R I	GND
PIN #	3	2	6	4	8	7	9	5
FUNCT.	TX	RX	DTR	DSR	RTS	CTS	R I	GND

**FEM.  
DB9**



**MALE  
DB9**



**SPECIFICATIONS:**

COMMUNICATION	
<b>STANDARDS:</b>	EIA/TIA RS-232C Standard
<b>BAUD RATES:</b>	From 300 bps to 115,200 bps
<b>CONNECTOR TYPES:</b>	RS-232 Side: DB9 Female and RS-232 Side: DB9 Male
<b>DISTANCE:</b>	Both RS-232 Sides: 16 ft (5m)
ELECTRICAL	
<b>POWER SOURCE:</b>	9VDC to 48VDC
<b>DC/AC POWER ADAPTER:</b>	Included 12V / (100 -240VAC 50/60 HZ US Type a Plug) 500 mA
<b>OPTICAL ISOLATION:</b>	2500 V (2500Vrms 1 min, AC) or Continuous 500VDC
<b>CURRENT CONSUMPTION:</b>	Less Than 100 mA
<b>STATIC PROTECTION:</b>	15KV Electric Static Discharge (ESD) Protection
<b>SURGE PROTECTION:</b>	600W Surge Protection
MECHANICAL	
<b>HOUSING:</b>	Heavy Duty Aluminum
<b>WEIGHT:</b>	4.0oz (114 grams)
<b>DIMENSIONS:</b>	4.91" X 2.18" X 0.98" (124.7 mm X 55.0 mm X 24.9 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:

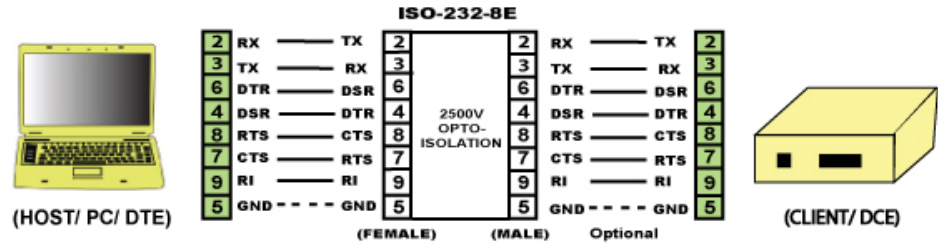


FIGURE 1: 2500V ISOLATION BETWEEN A DTE AND A DCE

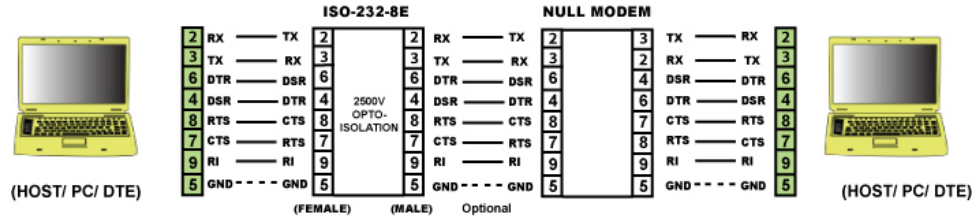


FIGURE 2: 2500V ISOLATION BETWEEN TWO DTES