



ISO-232-8E

Industrial RS-232 Isolator 8-Wire

Datasheet Revision 2.6



SERIALCOMM.COM

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
- CE, FCC, RoHS and REACH 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 DB9 female connector on the RS-232 serial port, and DB9 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 so you do not have to rely on the host RS-232 ability to port-power the isolator.

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.

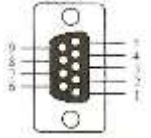
PINOUT CONFIGURATION: RS-232 SIDE – DB9 FEMALE

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

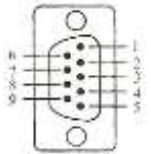
RS-232 SIDE – DB9 MALE

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



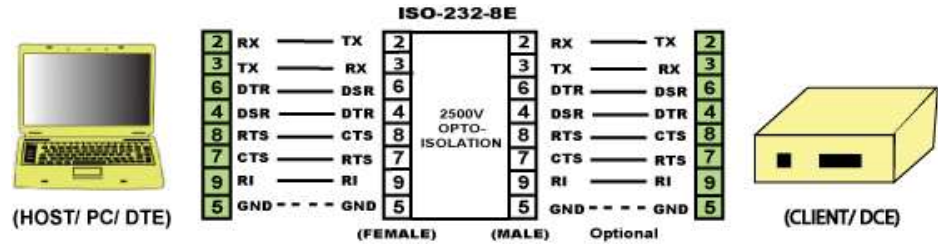
MALE
DB9



SPECIFICATIONS:

COMMUNICATION	
STANDARDS:	EIA/TIA RS-232C Standard
BAUD RATES:	From 300 bps to 115,200 bps
CONNECTOR TYPES:	RS-232 Side: DB9 Female and RS-232 Side: DB9 Male
DISTANCE:	Both RS-232 Sides: 16 ft (5m)
ELECTRICAL	
POWER SOURCE:	9VDC to 48VDC
DC/AC POWER ADAPTER:	Included 12V / (100 -240VAC 50/60 HZ US Type a Plug) 500 mA
OPTICAL ISOLATION:	2500 V (2500Vrms 1 min, AC) or Continuous 500VDC
CURRENT CONSUMPTION:	Less Than 100 mA
STATIC PROTECTION:	15KV Electric Static Discharge (ESD) Protection
SURGE PROTECTION:	600W Surge Protection
MECHANICAL	
HOUSING:	Heavy Duty Aluminum
WEIGHT:	4.0oz (114 grams)
DIMENSIONS:	4.91" X 2.18" X 0.98" (124.7 mm X 55.0 mm X 24.9 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
MEAN TIME BEFORE FAILURE:	306,000 Hours
RELIABILITY:	Low Failure Rate – 99+% Reliability Since Inception
WARRANTY:	5 Year Replacement Warranty

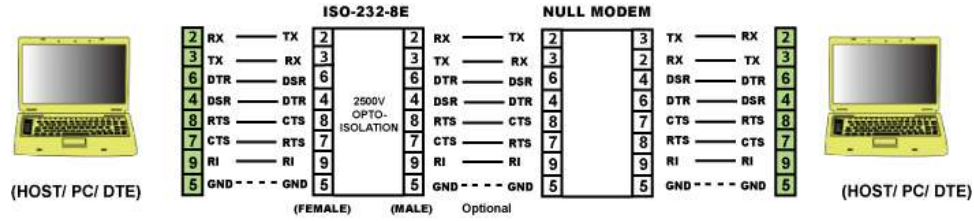
APPLICATIONS:



(HOST/ PC/ DTE)

(CLIENT/ DCE)

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



(HOST/ PC/ DTE)

(HOST/ PC/ DTE)

FIGURE 2: 2500V ISOLATION BETWEEN TWO DTES