



Din rail mounted conversion from RS232 to isolated RS422/485 with ATE

Features

- 3KV **Optical isolation** barrier
- Wide supply range **single** DC power up to 60V
- Efficient **switch-mode** regulation
- RS422/485 **lightning protection**
- Self-resetting **polyfuses**
- **RTS** Transmit Enable
- Compact vertical DIN rail mounting
- Pluggable **Combicon** terminal connections
- LED indicators



Overview

Many PCs and controllers are equipped with RS-232 ports which are designed for short-distance point-to-point low-speed communications whereas RS-422/485 balanced networks are designed to run long distances and permit multi-drop operation and can run at megabit speeds. Typically a simple RS-485 converter may be used to interface the PC to the balanced network.

One side effect of such long line lengths can be harmful transients and ground-loop currents which can introduce errors or disrupt communications or even damage the host. The CE0029 isolates the RS-232 interface from the RS-422/485 side through an optical isolation barrier rated at over 3,000 volts. Not only does this prevent harmful voltages being coupled through to the RS-232 side but it also isolates the RS-232 ground from the RS-485 "grounds" which otherwise could affect the inherent common-mode voltage rejection, a problem on many balanced networks.

RS-485 networks are half-duplex and normally require a transmit enable signal, something akin to the "press to talk" on 2-way radios. This model is designed to be directly controlled in this fashion from the RTS handshake line. To transmit requires that the RTS is asserted which enables the transmit drivers and deasserting the RTS will tristate the transmit drivers.



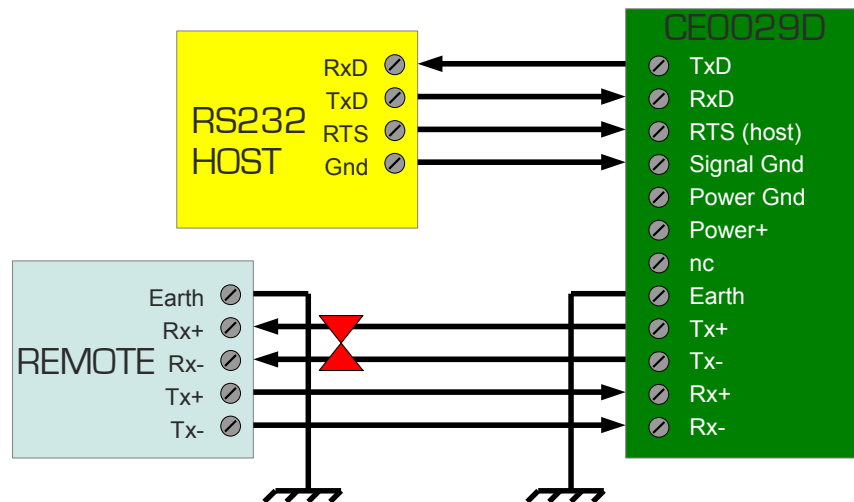
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Specifications

Supply Voltage	+9V to +60VDC
Current	60ma @12VDC, 25ma @30VDC
Physical	80mm x 26mm x 100mm (HWD)
Weight	200 grams (approx)
Case Material	Polyamide 6.6
Environment	-40°C to +85°C operating
Standards	IEC 1010; AS/NZS 3548 EMI/EMC; C Tick compliant

RS-232	115.2K baud max
RS-485	115.2K baud max (limited by RS-232 speed)
Control	RTS
ATE turnon	N/A
ATE turnoff	N/A
Indicators	RS-232 TxData, RS-232 RxData, Power

INSTALLTION WIRING DIAGRAM



 Note: Add 120 ohm termination resistor if equipment is not internally terminated

CONNECTIONS

1	TxD	RS-232 Transmit data out
2	RxD	RS-232 Receive data in
3	RTS	RTS Transmit enable signal (+V turns on transmit)
4	GND	RS-232 ground
5	0V	Power supply ground
6	+VDC	Power-supply positive input
7	NC	
8	EARTH	RS-422/485 common
9	TR+	RS-422 Transmit A or RS-485 Transmit/Receive A *1
10	TR-	RS-422 Transmit B or RS-485 Transmit/Receive B *1
11	Rx+	RS-422 Receive A *1
12	Rx-	RS-422 Receive B *1