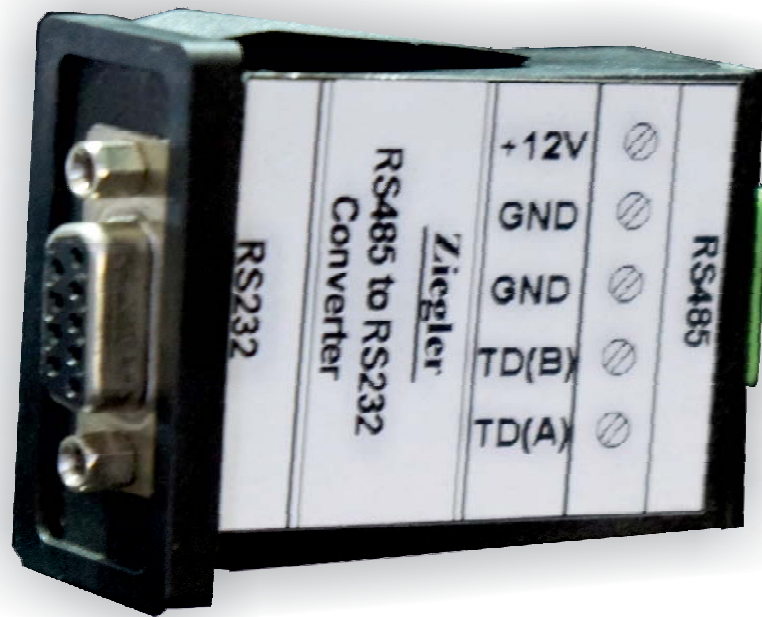


RS-485 TO RS-232 Converter



© Ziegler Instruments Order No. RS-485 TO RS-232 Converter Data sheet-EI.R0-920813-45-2013-EN

Applications :

RS-485 to RS-232 converter is suitable for following applications:

- Conversion of RS-485 signals to RS-232 signals
- SCADA systems
- PLC systems
- Process measurement and communications
- Telemetry systems

Features :

- Panel Mounted - Bezel size : 48 mm x 24 mm
- Uses MODBUS protocol.
- Port powered two channel (half duplex) RS-485 to RS-232 converter.
- No external power required if two RS-232 handshake lines are available.
- The unit can be powered from +12V DC supply externally if handshake lines are not available.
- Can transmit up to 4000 feet at 115.2k baud.

Description:

The unit is a port powered two-channel (half-duplex) RS-485 to RS-232 converter. It converts the balanced halfduplex RS-485 signals to TD and RD RS-232 lines. The unit is powered from the RS-232 data and handshake lines whether the lines are high or low. An external power supply can be connected to two terminals on the RS-485 connector if no handshake lines are available.

Although the converter uses handshake lines to power itself, no handshaking is required to control the RS-485 driver.

The RS-485 driver is automatically enabled during each spacing state on the RS-232 side. During the marking or idle state, the RS-485 driver is disabled and the data lines are held in the marking state by the 4.7k ohm pull-up and pull-down resistors. The value of these resistors may need to be changed to a different value when termination is used in order to maintain the proper DC bias during the idle state.

The RS-485 to RS-232 converter has an internal connection to prevent data transmitted from the RS-232 port from being echoed back to the RS-232 port. It has a DB-9 female connector on the RS-232 side and a terminal block connector on the RS-485 side.

RS-232 Side :

Connector: DB-9 Female.
 Signals: Passes through pins 3 (TD) and 2 (RD) .
 Pins 7 (RTS) and 8 (CTS) are tied together.
 Pins 4 (DTR), 6 (DSR) and 1 (CD) are tied together .

RS-485 Side :

Connector: Terminal Block
 Signals: Half-duplex two-wire operation only.
 Automatic control circuit enables driver only when transmitting.
 Receiver is disabled when transmitting to prevent echo back to RS-232 device. Can transmit up to 4000 feet at 115.2k baud

Applicable Standards:

- EN 55022
- EN 61000-6-1
- EN 61000 (-4-2,-4-3,-4-4,-4-5,-4-6,-4-8,-4-11)

Specifications:

Reference Conditions :

Temperature : 23 °C ± 2K
 Aux. power supply : 12V DC ± 1%

Power Supply :

No external power required if two RS-232 output handshake lines are available.
 External +12V DC can be used if handshake lines are not available

NOTE: When using an external supply, the supply should be connected only to +12V and GND . Connecting an external power supply to the handshake lines may damage the unit

Current consumption:

35mA maximum current, under normal operation when externally powered.

Mechanical Design:

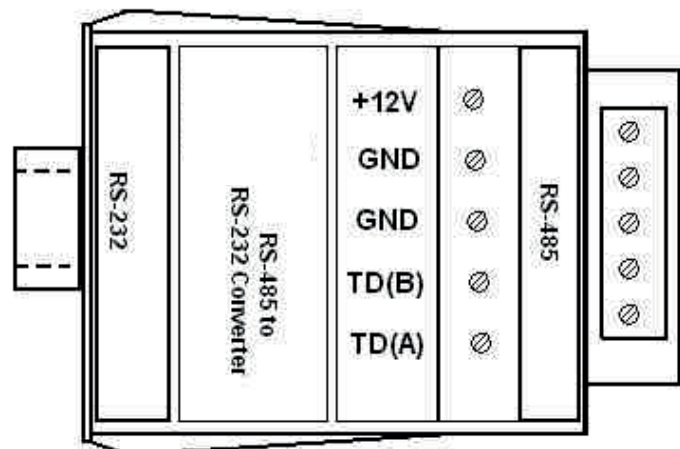
Dimensions

Bezel size 48 mm x 24 mm DIN 43718
 Panel cut-out 45 + 0.6 mm x 22.2 + 0.3 mm
 Overall depth 66.2 mm

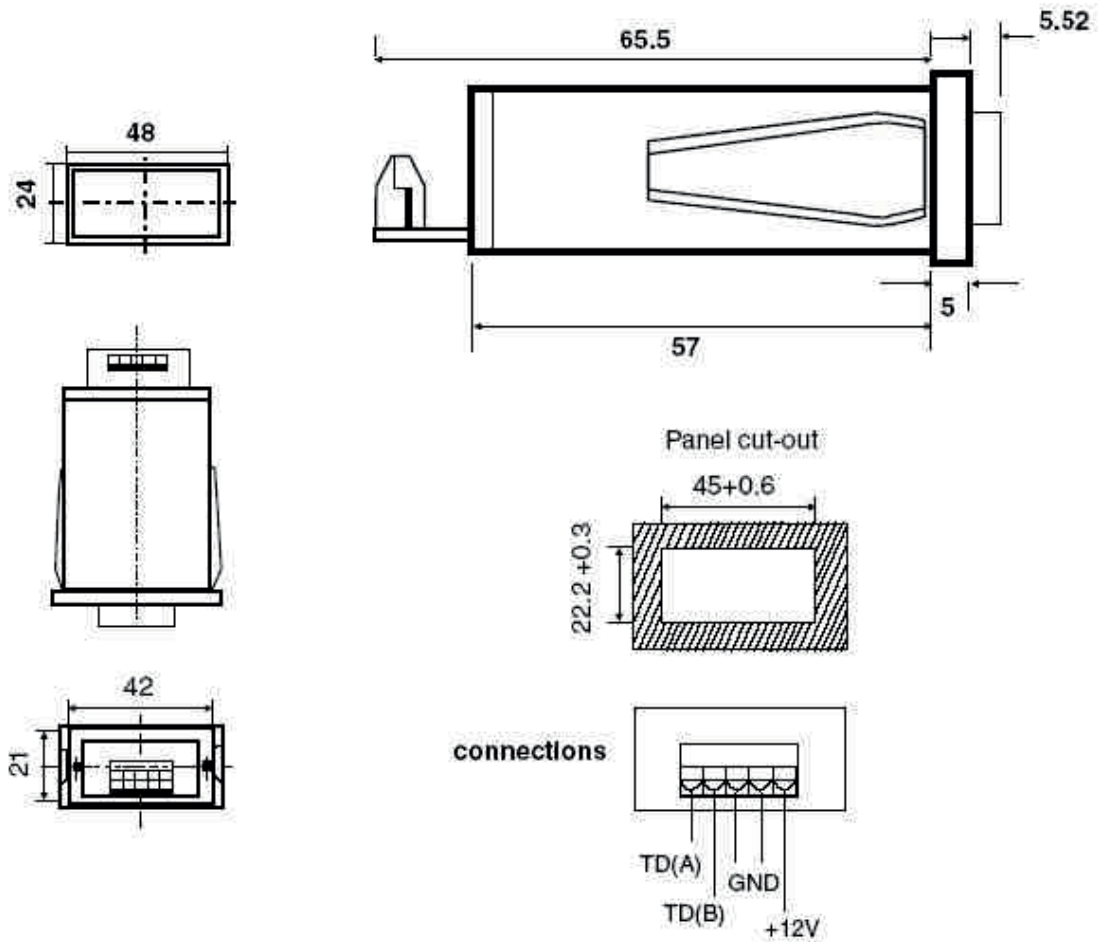
Weight

< 50 g

Connection:



Design and Installation:



Standard Scope of Supply :

- RS-485 to RS-232 converter
- Instruction Manual

Order Details:

Example

Type : RS-485 to RS-232 converter
 Product Code : 42423

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