

RS232-ISO-LV 001 – Level Converter With Galvanic Insulation

Abstract

This product converts serial data lines from 2.5V TTL Level to bipolar RS232 level and vice versa.

Additionally the TTL and RS232 circuits are galvanic separated by optocouplers and DC/DC Converter. The converter needs a 5..16V DC supply on pins 1 and 9 of the RS232 DSUB connector.



Symbolic Photo

Pinning

PC-Plug: 9pin DSUB female		
Pin No.		Signal Name RS232-ISO
1		PC-GND
2		PC-RxD
3		PC-TxD
4		NC
5		PC-GND
6		+10V (active)
7		NC
8		+10V (active)
9		5..16V DC Converter Supply

TTL-Plug: 9pin DSUB male		
Pin No.		Signal Name
1		NC
2		TTL input, serial data input
3		TTL output, serial data output
4		NC
5		GND (internal connected to pin 7)
6		5V DC Output (internal connected to pin 9)
7		GND
8		NC
9		5V DC Output +Vcc (5V +/- 5%)

Input and output view from converter. Connected devices have to be pinned vice versa.

NC: not connected

The PC side has to be connected with an 1:1 cable to PC interface.

Technical Data (Summary)

Supply Range	DC 5V..16V DC, typical 40mA. Protected against reverse polarity and transient voltages up to 40V.
Temperature Range	0°C to 40°C
Max. Data Transmission Rate	115200Bd
Input Configuration TTL Pin 2	CMOS input, low level < 0.7V, high level > 1.7V , 22k pullup resistor to 2.5V
Output Configuration TTL Pin 3	CMOS output, max. 5mA current
Insulation Voltage	250V, PC-Plug Pin 5 towards TTL-Plug Pin 7
Type Of Insulation	Only functional insulation, no safety relevant insulation like EN60950

Ordering Number

“RS232-ISO-LV 01”

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