

## TTL-232-5P

RS-232 To 5V TTL Converter – DB9  
Datasheet Revision 1.4

### INTRODUCTION:

The SerialComm TTL-232-5P is a bi-directional port powered RS-232 to 5V TTL converter in a 9 pin format. It can convert any standard full duplex RS-232C port to a 5V TTL signal and vice versa. The unit is powered from the RS-232 data lines. It also supports data direction auto-turnaround. Therefore, no external power or flow control is required. The data direction auto-turnaround automatically enables the TTL driver when data is present on the RS-232 side making the device plug-and-play, requiring no software drivers. The TTL-232-5P has a DB9 female connector on the RS-232 side and either a DB9 male connector or 5-way terminal block on the TTL side. Separate terminal block is included in package.

### CERTIFICATIONS:



### GENERAL FEATURES:

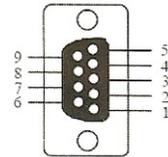
- Port Powered: no external power is necessary
- Data Direction, auto-turnaround, no flow control is necessary
- Plug-and-Play (Device is hot-pluggable)
- 5 Year Manufacturer's Warranty
- RoHS, CE, FCC and ISO 9001 Compliance Certified
- Built-in surge protection, static protection and circuit protection
- Surface Mount Technology manufactured to ISO 9001 Standards

### PINOUT CONFIGURATION:

#### RS-232 SIDE – DB9 FEMALE

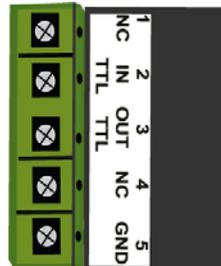
SIGNAL	DCD	DTR	DSR	RTS	CTS	TX	RX	GND
PIN #	1	4	6	7	8	2	3	5
FUNCTION	TIED		TIED		TX	RX	GND	

#### FEM. DB9

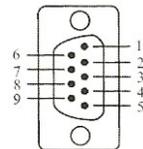


#### 5V TTL SIDE – DB9 MALE OR TERMINAL BLOCK

SIGNAL	NC	TTL IN	TTL OUT	NC	GND
PIN #	1	2	3	4	5
FUNCTION	NC	TTL IN	TTL OUT	NC	GND



#### MALE DB9



### SPECIFICATIONS:

PART NUMBER:	TTL-232-5P
STANDARDS:	EIA/TIA RS-232C Standard
BAUD RATES:	From 300 Baud To 115,200 Baud
POWER SOURCE:	Port Powered From RS-232 Data Lines
CURRENT CONSUMPTION:	Less Than 10 mA
CONNECTOR TYPES:	RS-232 Side: DB9 Female and 5V TTL Side: either DB9 Male or 5 Way Terminal Block
DISTANCE:	RS-232 Side: 16 ft (5m) and 5V TTL Side: 10 ft (3m)
STATIC PROTECTION:	1500W Static Protection
SURGE PROTECTION:	600W Surge Protection
WEIGHT:	<b>With Terminal Block:</b> 1.2oz (36 grams) <b>Without Terminal Block:</b> 0.8oz (24 grams)
DIMENSIONS:	<b>With Terminal Block:</b> 3.16" X 1.32" X 0.73" (80.3 mm X 33.4 mm X 18.6 mm) <b>Without Terminal Block:</b> 2.47" X 1.33" X 0.70" (62.8 mm X 33.8 mm X 17.8 mm)
OPERATING TEMP.:	-4° F to 140° F (-20°C to 60° C)
OPERATING HUMIDITY:	5% To 95% - No Condensation

### TTL VOLTAGE LEVELS:

TTL INPUT	TTL OUTPUT
<b>HIGH (&gt; 2.0V)</b>	<b>HIGH (5.0V)</b>
<b>LOW (&lt; 0.8V)</b>	<b>LOW (0.0V)</b>

### TROUBLESHOOTING INSTRUCTIONS:

Perform a loop back test on one TTL-232-5P converter. Tie signals TTL OUT to TTL IN of the TTL-232-5P. Attach the converter to a serial port on a PC and using HyperTerminal send a character from one and see if it echoes to the other. This will test both TTL input and TTL output functions.

### APPLICATIONS:

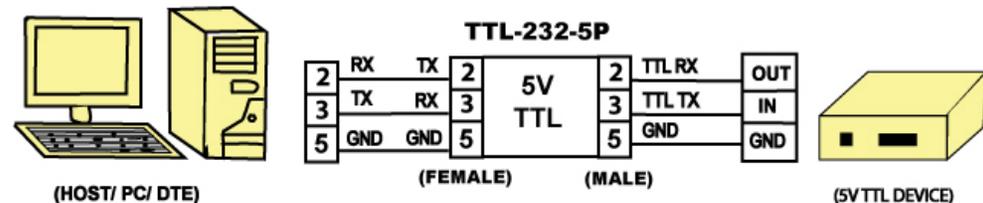


FIGURE 1: CONNECTING THE RS-232 PORT TO A 5V TTL DEVICE