

INTRODUCTION:

The SerialComm CON-485/422-PI9 is an industrial grade bi-directional port powered RS-232 to RS-485 or RS-422 converter in a 9 pin format. It can convert any standard full duplex RS-232C port to any two-wire half duplex RS-485 port or four-wire balanced full duplex RS-485 or RS-422 port. In simple terms, it will convert any RS-232 signal to a RS-485 or RS-422 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 RS-485 / RS-422 driver when data is present on the RS-232 side making the device plug-and-play, requiring no software drivers. The CON-485/422-PI9 has a DB9 female connector on the RS-232 side and either a DB9 male connector or 5-way terminal block on the RS-485 / RS-422 side. Separate terminal block is included in package.

CERTIFICATIONS:



GENERAL FEATURES:

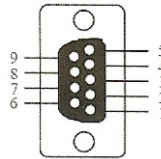
- Port Powered: no external power is necessary
- Data Direction, auto-turnaround, no flow control is necessary
- Plug-and-Play (Device is hot-pluggable)
- 5 Year Manufacturer's Warranty
- RoHS, CE, FCC and ISO 9001 Compliance Certified
- Built-in surge protection, static protection and circuit protection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

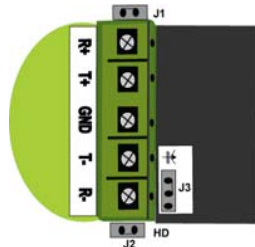
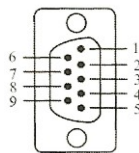
FEM. DB9



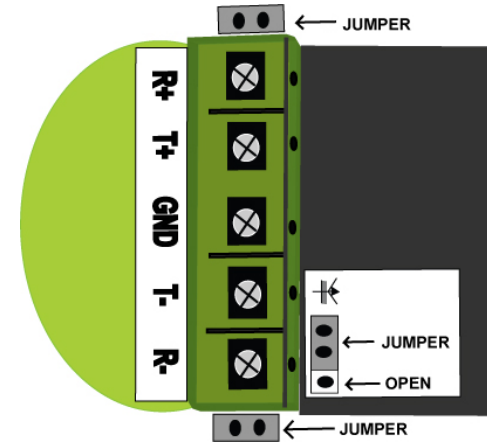
RS-485 / RS-422 SIDE - DB9 MALE OR TERMINAL BLOCK

SIGNAL	T+	T-	R-	R+	GND
PIN #	1	2	3	4	5
RS-485	485+	485-			GND
RS-422	T+	T-	R-	R+	GND

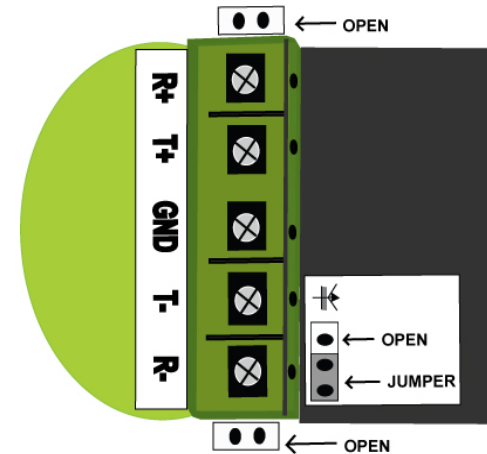
MALE DB9



JUMPER CONFIG. FOR RS-232 TO RS-485 MODE:



JUMPER CONFIG. FOR RS-232 TO RS-422 MODE:



SPECIFICATIONS:

PART NUMBER:	CON-485/422-PI9
STANDARDS:	EIA/TIA RS-232C Standard, RS-485 Standard and RS-422 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 RS-485 / RS-422 Side: either DB9 Male or 5 Way Terminal Block
DISTANCE:	RS-232 Side: 16 ft (5m) and RS-485 / RS-422 Side: up to 4000 ft (1.2km)
MAX NUMBER OF DROPS:	128 Drops
STATIC PROTECTION:	1500W Static Protection
SURGE PROTECTION:	600W Surge Protection
WEIGHT:	With Terminal Block: 1.2oz (36 grams) Without Terminal Block: 0.8oz (24 grams)
DIMENSIONS:	With Terminal Block: 3.80" X 1.33" X 0.70" (96.5 mm X 33.8 mm X 17.8 mm) Without Terminal Block: 2.47" X 1.33" X 0.70" (62.8 mm X 33.8 mm X 17.8 mm)
OPERATING TEMP.:	-40° F to 176° F (-40°C to 80° C)
OPERATING HUMIDITY:	5% To 95% - No Condensation

TROUBLESHOOTING INSTRUCTIONS:

RS-232 TO RS-485 MODE OPTION:

- Configure jumper settings to place two CON-485/422-PI9 converters in RS-232 to RS-485 mode. Perform a loop back test on a pair of CON-485/422-PI9 converters. Using figure 1, attach the two CON-485/422-PI9s to two serial ports on a PC and using two instances of a HyperTerminal program send a character from one and see if it echoes to the other. This will test both transmit and receive functions of the converter in RS-485 mode.

RS-232 TO RS-422 MODE OPTION:

- Configure jumper settings to place one CON-485/422-PI9 converter in RS-232 to RS-422 mode. Perform a loop back test on one CON-485/422-PI9 converter. Tie signals T+ to R+ and T- to R- of the CON-485/422-PI9. Attach the converter to the 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 transmit and receive functions of the converter in RS-422 mode.

APPLICATIONS:

RS-232 TO RS-485 MODE OPTION:

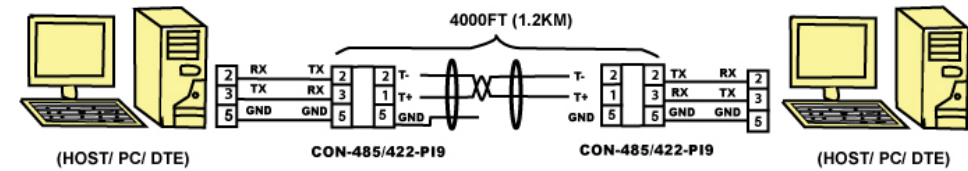


FIGURE 1: EXTENDING RS-232 DATA DISTANCE IN RS-485 MODE

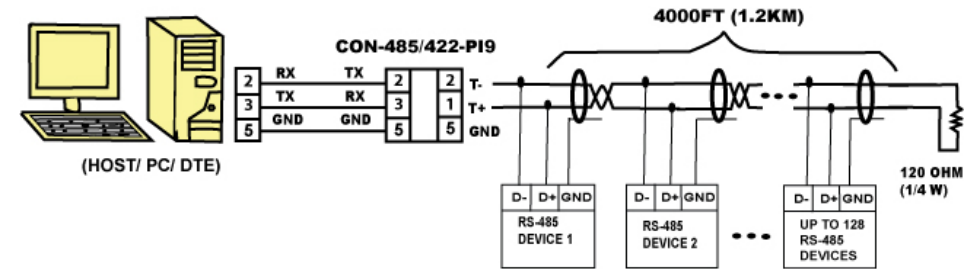


FIGURE 2: MASTER/SLAVE MULTIPLE DROP CONFIG. IN RS-485 MODE

RS-232 TO RS-422 MODE OPTION:

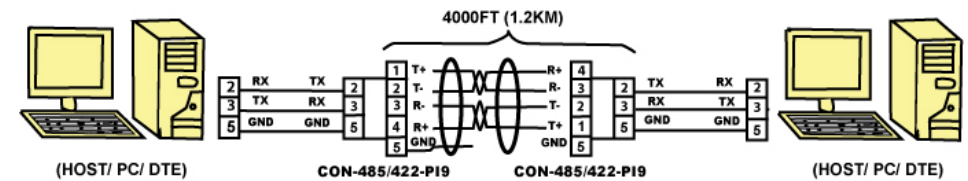


FIGURE 3: EXTENDING RS-232 DATA DISTANCE IN RS-422 MODE

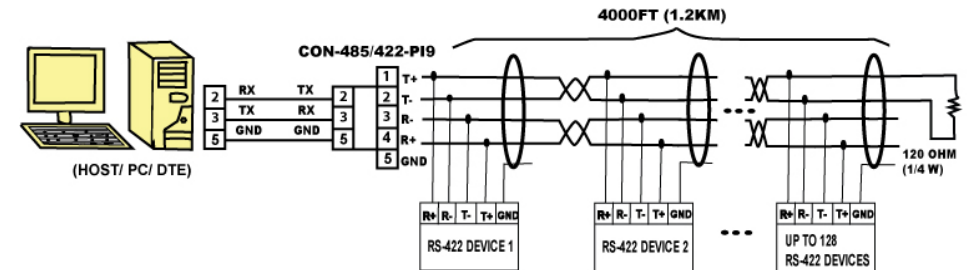


FIGURE 4: MASTER/SLAVE MULTIPLE DROP CONFIG. IN RS-422 MODE