SW485-GI - SCELRS485

Opt-Isolated RS232 To RS485/RS422
Converter or RS485/RS422 Converter or RS485/RS422 Repeater

GENERAL FEATURES:

Plug-and-Play (hot-pluggable)
Isolated 3KV RS-232 to RS-485 or RS-422
Isolated 3KV RS-485/RS-422 Conversion
Isolated 3KV RS-485 or RS-422 Repeater
External 12V-36V powered with included 120VAC/240VAC adapter
Built-in surge and static protection
RoHS, CE, and FCC certified

DESCRIPTION:

The SCELR485 is an industrial grade bi-directional externally powered 3K isolated RS-232 to RS-485/RS-422 converter / RS-485 to RS-422 converter / RS-485/RS-422 repeater. This is our most versatile RS-232/RS-485/RS-422 converter/repeater. Not only will it convert RS-232 to RS-485 or RS-422 but it will convert RS-485 to RS-422 and vice versa and repeat either RS-485 or RS-422 with isolation. A built-in data direction auto-turnaround feature automatically enables the RS-485/RS-422 driver when data is present from the RS-232 port, eliminating the need for software drivers, and making the device fully plug-and-play. The CON-485/422-REP is an effective solution for protecting RS-232, RS485 and RS-422 devices from voltage surges, lightning strikes, ground loop conditions and signal noise problems. The unit is not reliant on port power so you do not have to worry about the RS-232's ability to power the converter. The SCELR485 has a db-9 female connector on the RS-232 serial port, and terminal blocks for both RS-485/RS-422 ports. The unit is enclosed in a heavy duty steel housing for rugged applications.
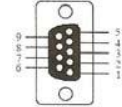
CERTIFICATIONS:

CE FC RoHS

CERTIFYING LABS: TEST

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
FUNCT.	TIED			TIED		TX	RX	GND

RS-485/RS-422 – 5 POSITION TERMINAL BLOCK 1

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

RS-485/RS-422 – 5 POSITION TERMINAL BLOCK 2

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

POWER – 3 POSITION TERMINAL BLOCK

POWER	V+		V-
FUNCT.	VCC+		GND
PIN #	1	2	3

| COMMUNICATION	
STANDARDS:	EIA/TIA RS-232C, 2-wire RS-485 & 4-wire RS-422 Standards
BAUD RATES:	From 300 bps to 115,200 bps
CONNECTOR TYPES:	RS-232 Side: DB9 Female, RS-485/RS-422 Side 1: 5way Terminal Block, RS-485/RS-422 Side 2: 5-way Terminal Block, Power 3-way Terminal Block
DISTANCE:	RS-232 Side: 5m & RS-485/RS-422 Side: up to 3.0km
MAX # OF CONNECTIONS:	128 Connection Drops
ELECTRICAL	
DC/AC POWER ADAPTER:	12-36 VDC/1A (Input: 100-240VAC 50/60hz EU Plug)
OPTICAL ISOLATION:	3000V (3000Vrms 1 min, AC)
CURRENT CONSUMPTION:	Less Than 100 mA
STATIC PROTECTION:	15KV Electric Static Discharge (ESD) Protection
SURGE PROTECTION:	600W/Sec Surge Protection
MECHANICAL	
HOUSING:	Heavy Duty Steal Case
DIN RAIL:	Optional DIN Rail Mounts
WEIGHT:	8.9oz (252.4 grams)
DIMENSIONS:	3.26" X 3.70" X 0.87" (82.3 mm X 93.8 mm X 22.0 mm)
ENVIRONMENTAL	
OPERATING TEMP.:	-40° F to 185° F (-40°C to 85° C)
OPERATING HUMIDITY:	5% To 95% - No Condensation
QUALITY	
PRODUCT SAFETY:	CE, FCC and RoHS Conformance Certified
RELIABILITY:	Low Failure Rate – 99+% Reliability Since Inception
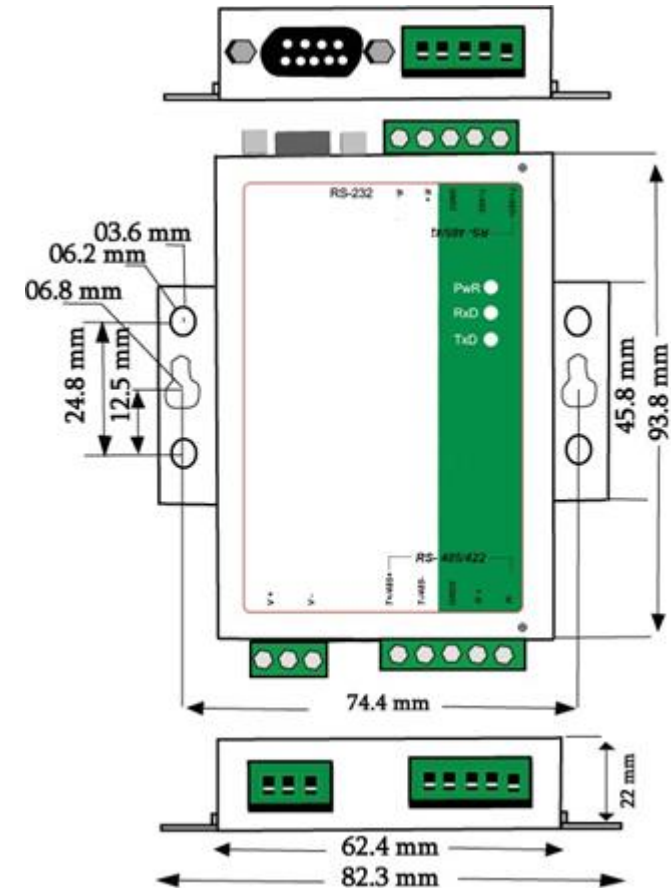
APPLICATIONS:

RS-232 TO 2-WIRE RS-485 MODE OPTION:
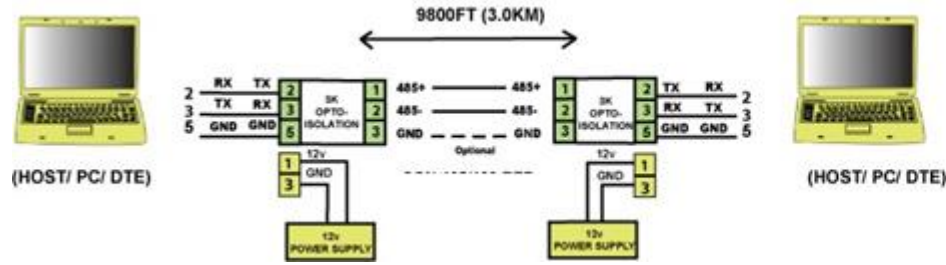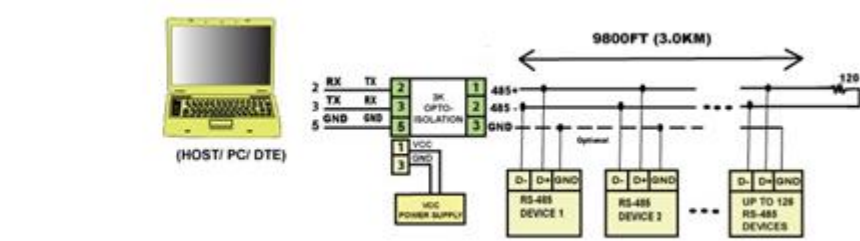

FIGURE 1: EXTENDING RS-232 DATA DISTANCE IN RS-485 MODE

RS-232 TO 4-WIRE RS-422 MODE OPTION:
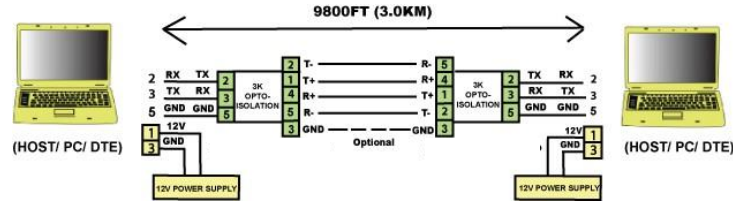
FIGURE 3: EXTENDING RS-232 DATA DISTANCE IN RS-422 MODE
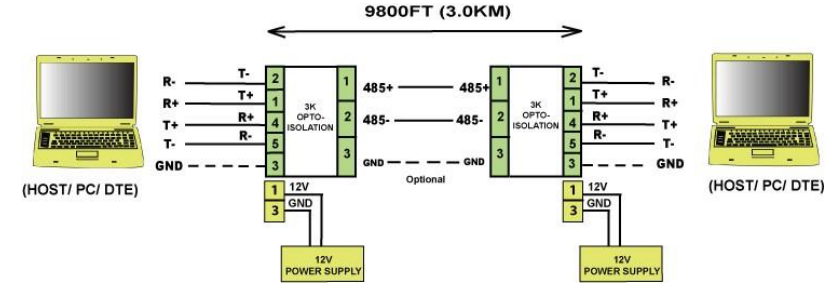
RS-485 TO 4-WIRE RS-422 MODE OPTION:
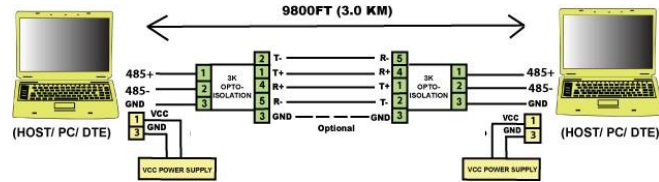
FIGURE 5: CONVERTING RS-485 TO RS-422 MODE
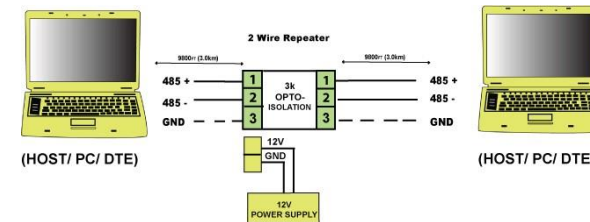
RS-422 TO RS-485 MODE OPTION:

FIGURE 2: RS232 TO MASTER/SLAVE MULTIPLE DROP CONFIG. IN RS-485 MODE

FIGURE 7: CONVERTING RS-422 TO RS-485 MODE

ISOLATED REPEATER MODE OPTION:

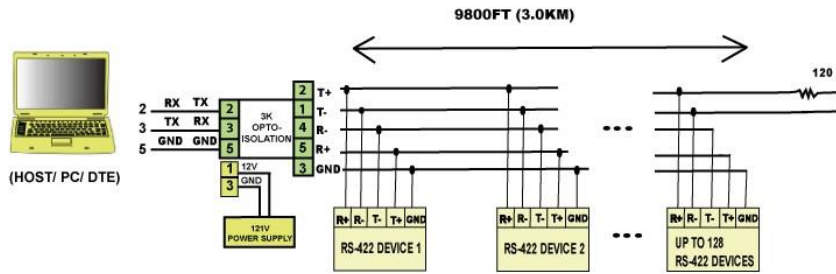FIGURE 9: ISOLATED RS-485 REPEATER MODE

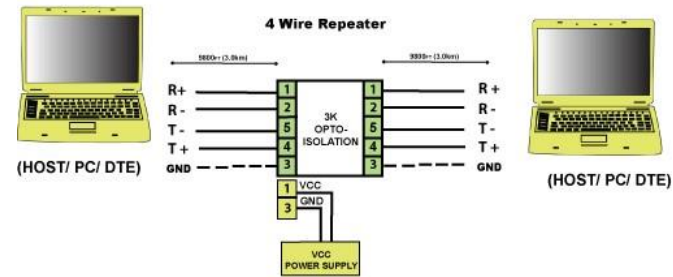**FIGURE 4: RS-232 TO MASTER/SLAVE MULTIPLE DROP CONFIG. IN RS-422 MODE**

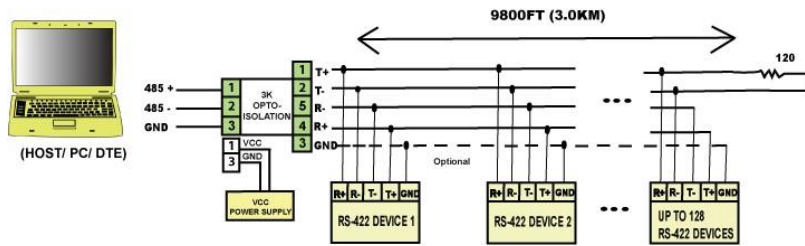**FIGURE 10: ISOLATED RS-422 REPEATER MODE**

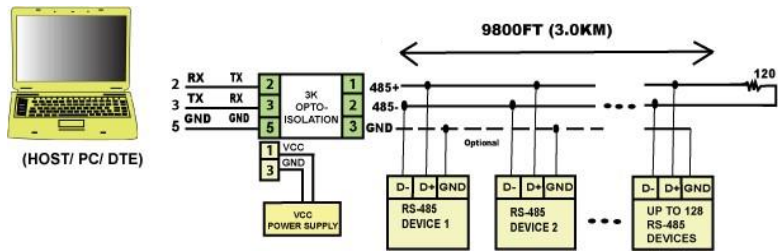**FIGURE 6: RS-485 TO MASTER/SLAVE MULTIPLE DROP CONFIG. IN RS-422 MODE**

FIGURE 8: RS-422 TO MASTER/SLAVE MULTIPLE DROP CONFIG. IN RS-485 MODE