



RelComm, Inc.

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# SLIM—CL

## *Current Loop Interface*



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### **SLIM-CL CURRENT LOOP INTERFACE**

The **Single Line Interface Module (SLIM)** is an interface between RS-232 and current loop serial communications ports. The SLIM CL is available as an active, passive, or one loop active, one loop passive device. The unit must be ordered in the configuration required, as the configuration cannot be changed in the field. Both ports are DB-25S (Female) connectors. The RS-232 port is configured as a DCE (Modem) port. The model SLIM-CL-P (Passive) can be operated as Non-powered, line driven device, or as a self-powered device. Sometimes an interface has insufficient drive power to supply power to parasitic device. If this becomes a problem, a wall mount power supply can be ordered to power the SLIM-CL-P.

### **INSTALLING THE SLIM-CL**

If the device the unit is being plugged into is DTE (computers and terminals) then the SLIM-CL should be connected with a straight through cable. The SLIM-CL-P is being operated as a non-powered unit; it requires a positive signal voltage on either pin 6 or pin 20. If the unit is interfacing to a DCE (Modem) port, a crossover cable is required, however, only pins 2 & 3 need be crossed over. All other conductors are ignored. This interface device will only work in a system that provides software (X-ON/X-OFF, or ACK/NACK) handshaking.

### **DETERMINING THE CORRECT MODEL SLIM**

The “ active “ device in the current loop provides the current for the loop. There can be only one active device in the current loop. To determine the active/passive configuration of the device with which you wish to interface to, measure across the unconnected terminals of the loop. If there is a voltage present while the loop is idle, the unit is an active unit and you need to order a passive SLIM (SLIM-CL-P). If no voltage is measured across the loop terminals, the device is passive and an active SLIM (SLIM-CL-A) should be ordered. If the device has one loop passive, one loop active, or if it is a TWO WIRE HALF-DUPLEX, passive device, the SLIM-CL-X unit must be ordered. When ordering the SLIM-CL-X, specify which loop should be active. (If it is used in a two wire half duplex circuit, either side can be the active side).

## TECHNICAL SPECIFICATIONS

### SLIM-CL CURRNT LOOP INTERFACE

HEIGHT: 0.70 "  
 WIDTH: 1.77 "  
 DEPTH: 2.09 "  
 WEIGHT: 1.5 oz.

POWER: 16 VAC 200 ma for SLIM-CL-A or SLIM-CL-X  
 The SLIM-CL-P can be powered from the RS232 interface pin 6 or 20 but will accept external power if required.

### ENVIRONMENTAL REQUIREMENTS

OPERATING TEMP: 0-40 DEG. C  
 OPERATING HUMIDITY: 0-90 % (non-condensing)

### OPERATING SPECIFICATIONS

Maximum Baud Rate: 19,200  
 Maximum Distance: Up To 1 Km  
 Half or Full Duplex  
 Supplies 20 ma to the loop (active loop only)  
 Tx active Rx passive (SLIM-CL-X only)  
 >12 mA Mark  
 < 2 mA Space

### AC VOLTAGE DROP ACROSS THE LOOP

TX = 0.9 VAC  
 RX = 0.07 VAC  
 Bias 4-17 mA Median 10.25 mA

## INTERFACE

### C/L PORT

10 = +R  
 11 = -R (INPUT)  
 12 = +T  
 13 = -T (OUTPUT)

### RS232-C PORT

2 = RD (INPUT)  
 3 = TD (OUTPUT)  
 6 = DSR  
 20 = DTR

### 2 - WIRE HALF DUPLEX

10 = + LOOP  
 JUMPER 11 TO 12  
 13 = - LOOP