

8/1 RS-485 Multiplexer

1. General:

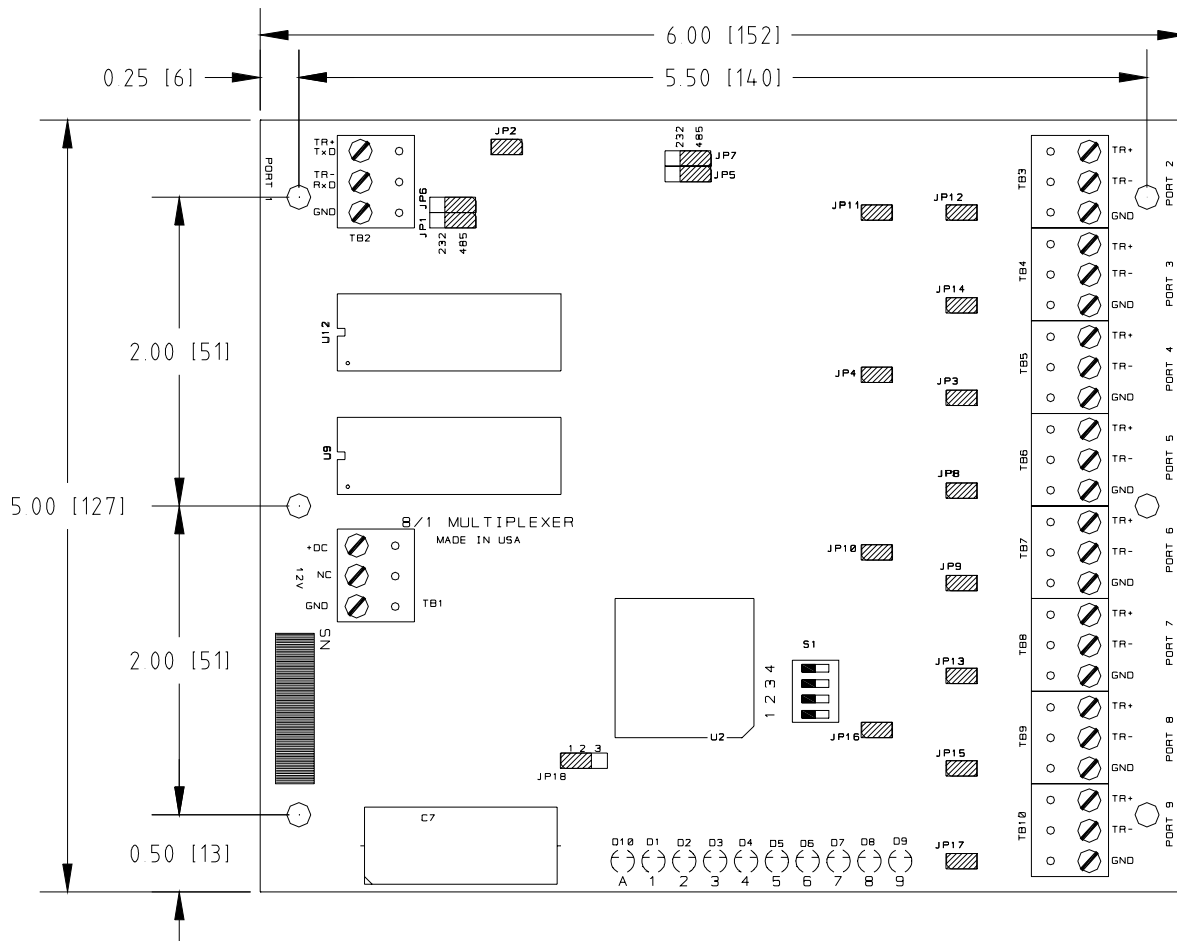
The Multiplexer allows a controller to expand a single communication port to 8 2-wire RS-485 channels, thus making it convenient to implement star wiring topology. All nine 2-wire channels on the multiplexer are universal with regard to master/slave devices.

The electrical interface for port 1 is jumper selectable as RS-232 or RS-485.

Ports 2, 4, 6 and 8 may be individually configured as receive-only channel. By pairing a receive-only channel with another channel, a 4-wire RS-485 channel may be formed.

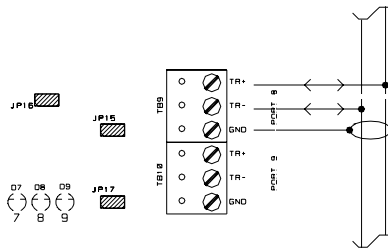
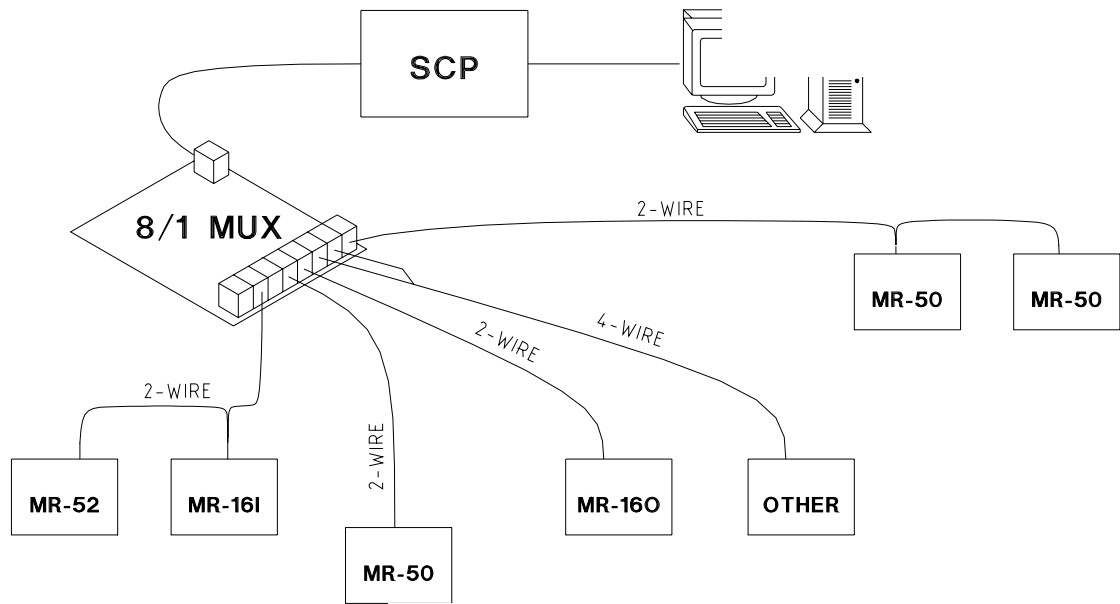
Baud rate dependent turn around delay is set by DIP switches. The typical turn around time is set to approximately 10 bit time (see DIP switch table). To avoid collision, a device must wait for this time before it can begin a new transmission.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

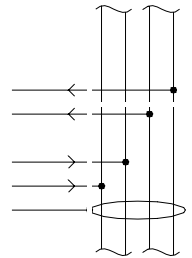


2. Port Configuration:

The following figure shows the typical usage for 2-wire and 4-wire RS-485. To set a port as receive-only, remove the corresponding jumper (see table).



2-WIRE



4-WIRE

S4	S3	S2	S1	SELECTION (TURN AROUND DELAY, APPROXIMATE)
OFF	OFF	OFF	OFF	300 BPS (35mS)
OFF	OFF	OFF	ON	1200 BPS (9.58mS)
OFF	OFF	ON	OFF	2400 BPS (4.79mS)
OFF	OFF	ON	ON	4800 BPS (2.50mS)
OFF	ON	OFF	OFF	9600 BPS (1.25mS)
OFF	ON	OFF	ON	19200 BPS / 38400 BPS NORMAL (625uS)
OFF	ON	ON	OFF	38400 BPS FAST TURN (365uS)
OFF	ON	ON	ON	38400 BPS FAST TURN (365uS)

4. Specification:

The multiplexer is for use in low voltage, class 2 circuit only.

Primary power:

DC input: 12Vdc±15%, 250mA

Interfaces:

Port 1: RS-232/RS-485, selectable

Port 3,5,7,9 RS-485, Transmit/Receive

Port 2,4,6,8 RS-485, Transmit/Receive, or Receive Only

Wire requirement:

Power: 1 twisted pair, 18 AWG

RS-485: 24AWG, 4,000ft (1,200m) max., twisted pair(s) with shield.

RS-232: 24AWG, 50ft (15m) max.

Environmental:

Temperature: 0 to 70 °C, operating

-55 to +85 °C, storage

Humidity: 0 to 95% RHNC

Mechanical:

Dimension: 5 in. (127mm) L x 6 in. (152mm) W x 1 in. (25mm) H

Weight: 4 oz (180 g) nominal

Warranty

Mercury Security Corporation warrants the product is free from defects in material and workmanship under normal use and service with proper maintenance for one year from the date of factory shipment. Mercury Security Corporation assumes no responsibility for products damaged by improper handling or installation. This warranty is limited to the repair or replacement of the defective unit.

There are no expressed warranties other than set forth herein. Mercury Security Corporation does not make, nor intends, nor does it authorize any agent or representative to make any other warranties, or implied warranties, and expressly excludes and disclaims all implied warranties of merchantability or fitness for a particular purpose.

Returned units are repaired or replaced from a stock of reconditioned units. Returns must be accompanied by a return authorization number (RMA) obtained from customer service, and prepaid postage and insurance.

Liability

The Interface should only be used to control exits from areas where an alternative method for exit is available. This product is not intended for, nor is rated for operation in life-critical control applications. Mercury Security Corporation is not liable under any circumstances for loss or damage caused by or partially caused by the misapplication or malfunction of the product. Mercury Security Corporation's liability does not extend beyond the purchase price of the product.