

RMSC485

RS232 to RS485 Converter

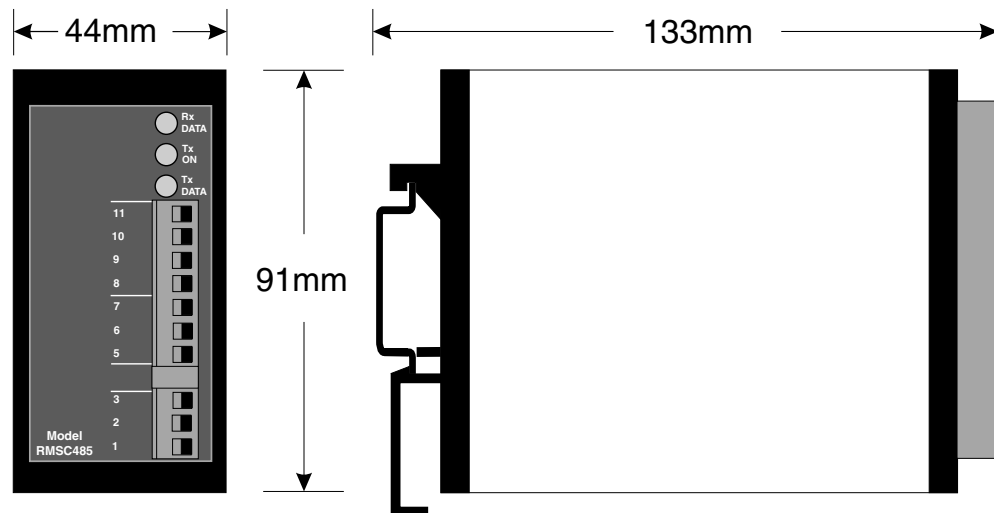
Operation & Instruction Manual



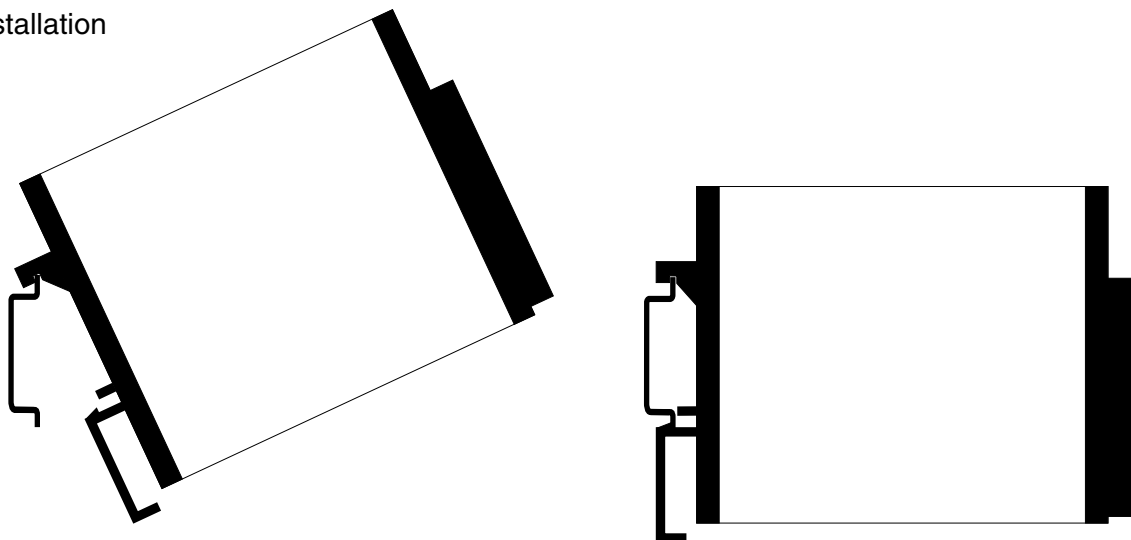
Mechanical Installation

The RMSC485 is a DIN rail mount instrument, simply clip unit onto rail as shown below. To remove from the rail insert a broad bladed screwdriver under the lower arm and lever downwards to release clip.

Dimensions



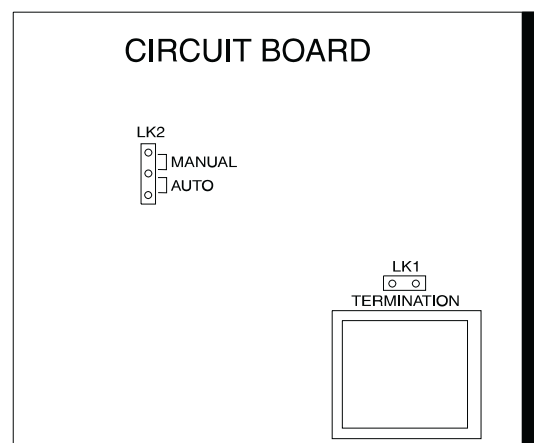
Installation



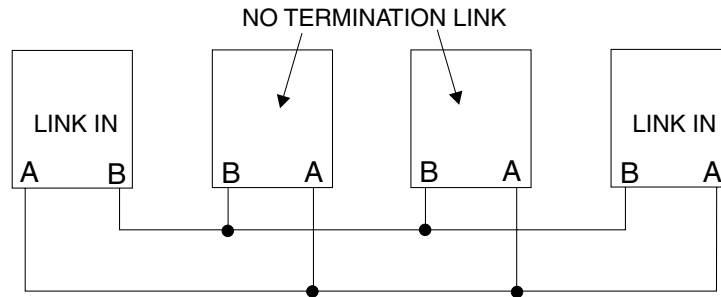
Electrical Installation

Internal Link Settings

Internal links are fitted to the circuit board, if link settings need to be altered then remove the two plug in connectors at the instrument face, unscrew the four front bezel screws and the earth screw located at the side of the instrument. Now gently pull the front bezel away from the case. The circuit board is attached to the front bezel and will slide out. Make the link changes required and re-assemble the instrument.



LK1 Termination Link. The termination link must be in when if the RMSC485 is the first or last device on a serial line. The link terminates the line preventing reflection and distortion of the signal.



LK2 - Auto/Manual Link. In manual mode the transmitter must be manually enabled and disabled, normally via the DTR or RTS line. Since all devices on an RS485 line share the same lines the transmitter, when in Manual mode, needs to be controlled via the RS232 hardware (PIN 11) to avoid data collision on the line. Pin 11 must be held high to turn the transmitter on and must go low to turn it off. The line must be held high until the stop bit of the last data byte is sent. This normally involves complex timing and the use of interrupts to ensure the timing requirements are met.

The transmitter must be turned off before another device on the line starts to transmit.

In auto mode the transmitter is automatically enabled when transmit data is present and is automatically switched off when data is complete. No timing is required by the host device. The Auto mode will work at all baud rates, see "SPECIFICATIONS" for available baud rates.

The receiver is enabled at all times and thus the RS485 signals will be echoed back, allowing the host to check all data transmissions. Any differences between transmitted and received data are most commonly caused by data collision (two devices transmitting at the same time).

External Connections

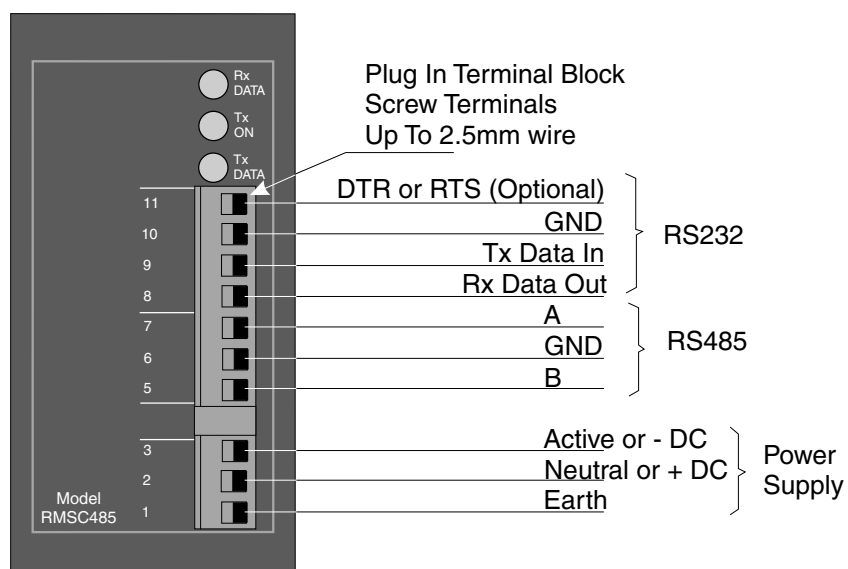
DTR or RTS - Optional hardware control of RS485 transmit. Used when manual mode is selected.

Tx Data In - Transmit data from RS232 device into RS485.

Rx Data Out - Receive data from RS485 to RS232 device.

A and B - Differential balanced signal (RS485). Note connections are in parallel with A connected to A and B connected to B.

Power supply lines - The RMSC485 is available with either 240, 110, 24VAC or wide range 12 - 48VDC supply. Isolation is provided between input and output signal ground and power supply ground.



Specifications

Maximum number of drivers:	32
Maximum number of receivers:	32
Maximum cable length:	1220m (4000 ft)
Baud range (RS232 limited):	300 to 38400 baud
Power supply:	240, 110, 24VAC or wide range 12 to 48VDC
Weight:	400 gms
Temperature range:	-10 to 60oC (5 to 95% humidity non condensing)

Guarantee & Service

The product supplied with this manual is guaranteed against faulty workmanship for a period of 12 months from the date of dispatch.

Our obligation assumed under this guarantee is limited to the replacement of parts which, by our examination are proved to be defective and have not been misused, carelessly handled, defaced, damaged due to excessive installation. This guarantee is VOID where the unit has been opened, tampered with or if repairs have been made or attempted by anyone except an authorised representative of the manufacturing company.

Products for attention under guarantee (unless otherwise agreed) **must be returned to the factory freight paid** and, if accepted for free repair, will be returned to the customers address in Australia free of charge.

When returning the product for service or repair, a full description of the fault must be given, and the mode of operation used when the product failed.

In any event the manufacturer has no other obligation or liability beyond replacement or repair of this product.

Modifications may be made to any existing or future models of the unit as it may deem necessary without incurring any obligation to incorporate such modifications in units previously sold or to which this guarantee may relate.

This document is the property of the instrument manufacturer and may not be reproduced in whole or part without the written consent of the manufacturer.

This product is designed and manufactured in Australia.