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Model RJ45MP

Rev. B

MAY 2007

RS232<=>RS485/422 Automatic Converter with Power & Data via CAT-5 with RJ45 connector, LED Indicators, for non-isolated Industrial Applications

General Description:

The RJ45MP has fast automatic transmit-enable timing for easy RS232<=>RS485/422 conversion, in 2-wire or 4-wire applications, at data rates up to 115.2Kbps. LED indicators for Power, TXD, RXD, with jumper selectable bias and termination. Single unit load Intersil ISL83491 Transceiver IC, and onboard transient protection. Provides power & data to remote I/O boards via CAT-5 cable.

Features:

Temperature Range: -40C to +85C
Industrial Applications via CAT-5 cable
Fast Automatic Transmit Enable
LED Indicators for RS485/422
RJ45 connector for 24Vdc power & data
Compatible with AT84R422 I/O Boards

Physical Properties:

RS232:	3-wire interface to RJ11/12 Connector (TXD, RXD, Common), DTE/DCE Jumpers
RS485/422:	RJ45 connector (up to 30Vdc power distribution, RS485 or RS422 via jumper selection)
Power:	2.1mm center positive "Barrel" connector, Terminals, (9-35Vdc), switching regulator
LEDs:	For RS485/422: Power (Yellow), TXD (Red), RXD (Green)
Bias:	620 Ohm pull-up and pull-down (jumper selectable)
Termination:	120 Ohm (jumper selectable)
Special:	Power remote I/O from the Converter, or use two units to make RS232<=>RS232 "extension cord"

Specifications:

Temperature Range:	-40C to +85C (-40F to +185F) industrial operating range
Relative Humidity:	10-90% non-condensing
Input Voltage Range:	9-35Vdc (Switching regulator)
Power:	Under 1/2 Watt (typical) + external load
Physical Size:	PCB size: 3.25" X 3.00" X 0.9" with connectors: 3.50" X 3.25 X 0.9" (built-in #6 standoffs)
RS485 Distance:	4000ft. (1250 meters) minimum, with 32 unit loads (Optional to 2 miles @ 38.4Kbps)
Speed/Format:	Up to 115.2Kbps data rate, with any combination of bits (start, data, parity, stop, etc.)
Operation:	2-wire RS485 or 4-wire RS422 data, using twisted 24AWG wire (100-120 Ohm impedance)

Options and Ordering Information:

RJ45MP:	\$69.00ea. (Fully tested & operational, Circuit board only, no accessories)
Enclosure:	\$10.00ea. P/N Enclosure-M (medium)
RS232 Cable:	\$7.50ea. P/N DB9F-7 (RJ11/12 to DB9F adapter with 7ft. cable)
Power Supply:	\$8.50ea. P/N 12VDC-SPS (12Vdc @ 0.45A Switching Power Supply)
RJ45MP-B9FSPS:	\$95.00ea. RJ45MP Converter with all options (Qty. 1-9)

NOTE: Flexible, industrial applications, can be used with indoor wiring, with power provided from one end only.

Contact Information: (Sales, technical and applications assistance)
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