



## RocketLinx® MC5001

Part Numbers - Single-Mode: 32000-5 | Multi-Mode: 32001-2



### KEY FEATURES AND BENEFITS::

- 3-in-1 RS-232/422/485 serial to fiber media converter
- Easy DIP switch configuration
- Models supporting Multi-Mode 5KM, Single-Mode 40KM
- Peer-to-Peer or Serial Fiber Ring transmission mode for serial fiber ring communication
- Auto baud rate detection, selection and direction
- Baud rate of up to 921Kbps
- High level immunity with 15KV ESD protection
- Two-way 120 ohm line terminator embedded
- Dual modes for power input, AC 24V (12-32V)/DC 24V (12-48V) with polarity reverse protection
- -20°C to 70°C extended operating temperature
- RoHS2 compliant under CE
- Rugged IP30 rated enclosure

### PRODUCT DESCRIPTION::

The RocketLinx MC5001 is a 1-port serial to fiber media converter designed to extend RS-232/422/485 serial communications across a fiber media link using two converters. This product features simple DIP switch configuration, an extended operating temperature range from -20°C to 70°C, and a wide input voltage range. Cabling to the product is attached via direct wire screw terminal blocks for serial and power, and ST connectors for fiber connections. The product is packaged in a rugged IP30 rated enclosure suitable for panel or DIN rail mounting.

Single-Mode and Multi-Mode fiber models meet the needs for long distance transmission up to 40KM. The RocketLinx MC5001 will

automatically detect the data baud rate of the connected full-duplex serial device, up to 921Kbps.

The RocketLinx MC5001 supports two transmission configurations, Peer-to-Peer in half/full-duplex and Serial Fiber Ring (SFR) in half-duplex. In a Peer-to-Peer configuration, two fibers are required between the two converters, one for data in each direction (RX and TX). To expand the number of connected serial devices, and extend transmission distance, multiple MC5001 units can link to each other as a ring architecture in SFR mode.

# ROCKETLINX SPECIFICATIONS::

## HARDWARE

<b>Enclosure</b>	IP-31 Grade Aluminum Metal Case
<b>Installation Method</b>	Panel mount or DIN rail
<b>LED Indicators</b>	POWER, Serial Data Transmit, Serial Data Receive, Serial Fiber Ring
<b>Dimensions</b>	4.5" x 1.0" x 3.8" 11.43 x 2.54 x 9.65 cm
<b>Product Weight</b>	0.32 lb 0.15 kg

## ELECTRICAL SPECIFICATIONS

<b>Device</b>	
DC Input Voltage	12-48 VDC
AC Input Voltage	12-32 VAC, 50/60Hz
Current Consumption	+24VDC, 65 mA
Power Consumption (max)	1.5W
<b>Power Connector Type</b>	(1) 3-pin screw terminal block
<b>Reverse Polarity Protection</b>	Protection against power input reversal
<b>Over Current Protection</b>	0.65A over current protection
<b>ESD Surge Protection</b>	Provides a minimum of 15KV protection for all serial lines

## ENVIRONMENTAL SPECIFICATIONS

<b>Air temperature</b>	
System On	-20 to 70° C
System Off	-40 to 80° C
<b>Operating Humidity (non-condensing)</b>	0% to 95%
<b>Heat Output</b>	5.1 BTU/Hr
<b>Mean time between failures (MTBF)</b>	
Single-Mode	55.3 years
Multi-Mode	46.5 years

## SERIAL COMMUNICATIONS

<b>Connector Type</b>	(1) 7-Pin screw terminal block
<b>Supported Standards</b>	RS-232 (TxD, RxD, GND) RS-422 4-wire (TxD+, TxD-, RxD+, RxD-, GND) RS-485 Half-Duplex (Data+, Data-, GND) RS-485 Full-Duplex (TxD+, TxD-, RxD+, RxD-, GND)
<b>Baud Rate</b>	300 to 921.6Kbps
<b>Serial Link Distance</b>	
RS-232	50 feet
RS-422	4000 feet
RS-485	4000 feet

## OPTICAL FIBER SPECIFICATIONS

<b>Fiber Mode</b>	Single-Mode or Multi-Mode
<b>Connector Type</b>	(2) ST
<b>Fiber Ports</b>	(1) Fiber TX port (1) Fiber RX port

<b>Fiber Cable Type</b>	Single-mode 8/125um, 9/125um or 10/125um Multi-mode 50/125um or 62.5/125um
<b>Link Distance (Max)</b>	Single-Mode 40KM with 9/125um 5KM with 62.5/125um Multi-Mode
<b>Wavelength</b>	Single-Mode 1310nm 820nm Multi-Mode
<b>Transmit (TX) Power (Min)</b>	Single-Mode -9 dBm Multi-Mode -12 dBm
<b>Transmit (RX) Power (Max)</b>	Single-Mode -8 dBm Multi-Mode -9 dBm
<b>Receive (RX) Sensitivity (Min)</b>	Single-Mode -27 dBm Multi-Mode -28 dBm
<b>Link Budget</b>	Single-Mode 18 dBm Multi-Mode 16 dBm
<b>Architecture</b>	PTP Mode Peer-to-Peer wiring in Full-Duplex or Half-Duplex SFR Mode Serial Fiber Ring in Half-Duplex

## EXPORT INFORMATION

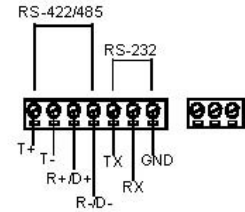
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<b>Export License</b>	None
<b>Export Control</b>	None
<b>Export Country</b>	USA
<b>Export Agency</b>	None
<b>Export Date</b>	None
<b>Export Status</b>	None
<b>Export Type</b>	None
<b>Export Value</b>	None
<b>Export Weight</b>	0.55 lbs 0.25 kg
<b>Export Dimensions</b>	6.0" x 2.5" x 5.0" 15.24 x 6.35 x 12.7 cm
<b>UPC Code</b>	Single-Mode 7-56727-32000-5 Multi-Mode 7-56727-32001-2
<b>ECCN</b>	5A991
<b>Schedule B Number</b>	8517.62.0050

## REGULATORY APPROVALS

<b>Emissions</b>	European Standard EN55022 FCC Part 15 Subpart B Class B limit Canadian EMC Requirements ICES-003
<b>Immunity</b>	European Standard EN55024: IEC 1000-4-2/EN61000-4-2: ESD IEC 1000-4-3/EN61000-4-3: RF IEC 1000-4-4/EN61000-4-4: Fast Transient IEC 1000-4-5/EN61000-4-5: Surge IEC 1000-4-6/EN61000-4-6: Conducted Disturbance IEC 1000-4-8/EN61000-4-8: Magnetic field IEC 1000-4-11/EN61000-4-11: Dips and Voltage Variations
<b>Other</b>	RoHS2 compliant under CE
<b>Regulatory Approvals</b>	



## PIN ASSIGNMENTS



## RECOMMENDED PRODUCTS::

- 32100-2** Power Supply PS1020 Universal (24V, 20W, Din Rail)
- 32101-9** Power Supply PS1060 Universal (24V, 60W, Din Rail)
- 32102-6** Power Supply PS1100 Universal



**Warranty Information**  
Comtrol offers a 30-day satisfaction guarantee and 5-year limited warranty.

**Sales Support**  
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