# **Industrial Isolated Converter** 485LDRC





## **PRODUCT FEATURES**

- Extend data up to 1.2 km (4,000 ft.)
- 2 kV optical isolation on input/output
- Wide operating temperature (-40 to +80 °C)
- 115.2 kbps data rate
- Modbus compatible

The 485LDRC is an optically isolated RS-232 to RS-422/485 converter. RS-232 signals interface through a terminal block. RS-422/485 signals and power inputs connect to the terminal block. Terminal blocks are arranged to allow easy wiring inside a control panel.

Built-in Automatic Send Data Control circuitry allows quick set-up and eliminates the need for external software drivers to control handshake signals. The converter operates on externally sourced 10-30 VDC power.

Optically isolated data lines (2,000 V on input/output) with 500W surge suppression ensure that connected equipment is protected even in the harshest environments. DIN rail mount design snaps on standard 35mm rail and a small form factor fits neatly into tight cabinets.

The 485LDRC is ideal for critical industrial communications, factory automation, in-cabinet conversion, warehouse automation, security, and many other applications.

## **ORDERING INFORMATION**

485LDRC Terminal Block Terminal Block	k

## **ACCESSORIES**

MDR-20-24 - PS, DIN, Slim, Plastic, 24W, 24V

# **SPECIFICATIONS**

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SERIAL TECHNOLOGY	
Data Rate	115.2 kbps
RS-232 - 2 options	
Connector	Terminal block
Signals	TD, RD, GND
RS-422	
Connector	Terminal block
Signals	TDA(-), TDB(+), RDA(-), RDB(+), GND
Termination	120 (switchable)
RS-485	
Connector	Terminal Block
Signals	TDA(-), TDB(+), RDA(-), RDB(+), GND
Modes	2-wire and 4-wire
Termination	120 Ohm (switchable)
ISOLATION	
Lines Protected	Data lines
Method	Optical
Rating	2,000 V
SURGE SUPPRESSION	
Lines Protected	Data lines
Method	TVS
Rating	7.5V bi-directional avalache breakdown device 500W peak power dissipation
Response Time	< 1 pico-second
INDUSTRIAL BUS	
Modbus	ASCII/RTU

All product specifications are subject to change without notice. 485LDRC\_0917ds



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# **SPECIFICATIONS - CONTINUED**

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POWER		
Connector	Terminal block	
Voltage	10-30 VDC	
Consumption	0.5 W	
Source	External powering required	
TERMINAL BLOCKS		
Wire Size	24 to 14 AWG	
Torque	4 kfg-cm	
LED INDICATORS		
Power (RED)	On when power applied	
TD (RED)	Flashes when RS-422/485 data is transmitted	
RD (RED)	Flashes when RS-422/485 data is received	
ENCLOSURE		
Material	Plastic	
IP Rating	20	
Dimensions	2.5 x 7.9 x 9.5 cm (1.0 x 3.1 x 3.7 in)	
Mounting	35 mm DIN rail (panel mount adapter available)	

ENVIRONMENTAL			
Operating Temperature	-40 to +80 °C (-40 to +176 °F)		
Storage Temperature	-40 to +85 °C (-40 to +185 °F)		
Operating Humidity	0 to 95% non-condensing		
MTBF	257448 hours		
MTBF Calculation Method	MIL 217F Parts Count Reliability Prediction		
APPROVALS / CERTIFICATIONS			
2004/108/EC	Electromagnetic Compatibility Directive		
2011/65/EU	Reduction of Hazardous Sustances Directive		
EN 55022: +AC	Information technology equipment - Class A RF Emissions		
EN 55024	Information technology equipment - Immunity (Light-industrial Environments)		
EN 61000-4-2	ESD Immunity		
EN 61000-4-3: +A2	Radiated Field Immunity (RFI)		
EN 61000-4-4	EFT/Burst Immunity		
EN 61000-4-5	RF Conducted Immunity		

# **MECHANICAL DIAGRAM**

