

RS-232 to RS-485 Port-powered Converters



Features

- Extend RS-232 data signals up to 1.2 km
- Convert RS-232 TD and RD to RS-485 signals
- Automatic Send Data Control no software drivers necessary
- Baud rates up to 115.2 kbps
- Powered from RS-232 handshake lines no power supply required



Introduction

These port-powered serial adapters convert TD and RD RS-232 to RS-485 allowing signals to transmit longer distances. RS-485 provides multi-drop capability. Automatic Send Data Control enables the driver when data is present on the RS-232 side. Converters are powered from the RS-232 data/handshake lines whether the lines are high or low. No handshake line change is necessary to control the data lines. The RS-485 driver is enabled with each bit of data. The RS-485 receiver is disabled when the driver is enabled and enabled when the driver is disabled. Model ULI-226T can also be powered by an external 12 Vdc PSU.

Specifications

Serial Technology

 RS-485 Operation RS-485 2-wire

Model:	RS-232 Connector:	RS-485 Connector:	Data Rate, max:	Biasing Resistors:
ULI-226D		DB9 female		
ULI-226J	DB9 female	RJ11	115.2 kbps	4.7k Ohms
ULI-226T		Terminal board		

Refer to Quick Start Guide for wiring, terminal and pin identification, information. Available on website.

Power

 Port Power RS-232 handshake lines

Λ	Model:	Source:	Connector:	Input Voltage:	Power Consumption:	
-	JLI-226D JLI-226J	Port-power	-	_	<40 mA. max.	
U	JLI-226T	Port-power <i>OR</i> external PSU	Terminal block	External PSU: 12-16 Vdc	C40 IIIA, IIIdx.	

Mechanical

Model:	Enclosure:	Installation:	Dimensions, mm:	Weight, gm:
ULI-226D			60.0 x 32.0 x 16.0	
ULI-226J	Plastic	Inline	73.0 x 32.0 x 16.0	82
ULI-226T			87.0 x 32.0 x 16.0	

Meantime Between Failures (MTBF)

MIL217F Parts Count Reliability Prediction Calculation Method

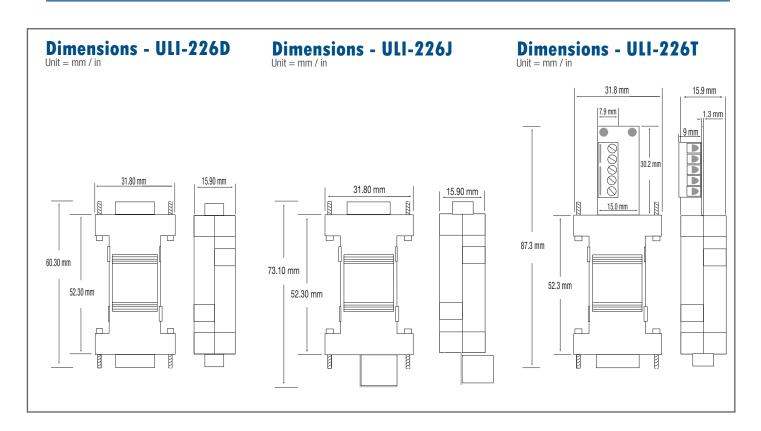
Model:	MTBF, hours:
ULI-226D	986473 hours
ULI-226J	897656 hours
ULI-226T	968410 hours

Environmental

0 to +70 °C (+32 to +158 °F) Operating Temperature Storage Temperature -40 to +85 °C (-40 to +185 °F) 95%, non-condensing Operating Humidity

Regulatory/Approvals/Certifications

Model:	Approvals:	CE - Directives:	CE - Standards:	Standards - other:
ULI-226D		2014/30/EU - Electromagnetic Compatibility (EMC)	LEN 55032 Class R - Electromagnetic Compatibility	EN 61000-6-1 - Generic Immunity Standard for Residential,
02. 2203			of Multimodia Equipment - Emission Deguiromente	Commercial and Light-industrial Environments
ULI-226J	FCC Part 15,	2011/65/EU amended by 2015/863/EU – Reduction of Hazardous Substances Directive (RoHS)		EN 61000-6-3 + A1 (Class B) – Generic Emission Standard for
ULI-220J	CISPR, CE	Of Hazardous Substances Directive (NOHS)	0, 1, 1	Residential, Commercial and Light-industrial Environments
LULOGOT	-	2012/19/EU - Waste Electrical and Electronic	Immunity Characteristics - Limits and Methods of	EN 61000-6-1 - Generic Immunity Standard for Residential,
ULI-226T		Equipment (WEEE)	Measurement	Commercial and Light-industrial Environments



Ordering Information

Model	Part Number to Order	Description
ULI-226D	BB-485SD9R	RS-485 Port Powered Converter, DB9F/DB9F
ULI-226J	BB-485SD9RJ	RS-485 Port-Powered Converter, DB9F/RJ11
ULI-226T	BB-485SD9TB	RS-485 Port-Powered (or external PSU) Converter, DB9F/TB

ULI-226 Series Selection Guide

RS-232 to RS-485 Port-powered Converters



Common Features

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- Baud rates up to 115.2 kbps
- Powered from RS-232 handshake lines no power supply required

Serial Port-powered Converters Comparison Table

Model Number	ULI-226D	ULI-226J	ULI-226T	
Part Number to Order	BB-485SD9R	BB-485SD9RJ	BB-485SD9TB	
Description	Port-p	owered, RS-232 to RS-485 Conv	erters	
Key Features		Inline Installation		
Industrial Rating		Light		
RS-232 Connector		DB9 female		
RS-485 Connector	DB9 female	RJ11	Terminal block	
Data Rate, max.		115.2 kbps		
Mode (RS-485 2 wire)		✓		
Automatic Send Data Control	✓	✓	✓	
Operating Temperature		0 to +70 °C		
Power Source	Port-power (RS-23	Port-power or external PSU		
Power Input Voltage	-	-	External PSU: 12-16 Vdc	
Power Connector	-	Terminal block (external power)		
Power Consumption, max.	<40 mA			
Enclosure	Plastic			
Mounting Installation	In-line			
Dimensions, mm	60.0 x 32.0 x 16.0	73.0 x 32.0 x 16.0	87.0 x 32.0 x 16.0	
MTBF (MIL217F), hours	986473	897656	968410	
Regulatory/Approvals/	FCC Part 15, CISPR, CE			
Certifications	EN 61000-6-1	EN55032/B, EN55024 EN 61000-6-3 + A1 (Class B)	EN 61000-6-1	