

SCP211 & SCP311

RS-232 to RS-422/485 Converters

PRODUCT INFORMATION

B&B ELECTRONICS

- ✓ **Isolated and Non-Isolated Models**
- ✓ **ESD Protection - 8 kV Contact, 15 kV Air**
- ✓ **Rugged Metal Case**
- ✓ **Wide Operating Temperature Models**
- ✓ **Panel Mount with Available DIN Rail Adapters**
- ✓ **Built in Switchable Bias & Termination**

Our SCP series RS-232 to RS-422/485 serial converters are compact and tough. Each model is designed and tested to meet heavy industrial EMC standards. The RS-232 signal is connected through a female DB9 connector. The RS-422/485 (2-Wire and 4-Wire) signal is connected through a removable terminal block, making wiring easy. Power is connected through a two position removable terminal block. Our bit-wise enabled circuitry automatically detects the character time-out eliminating the need to set DIP Switches for the baud rate.

The basic model, SCP211-DFTB3, is non-isolated and made for less demanding temperature extremes. If you need a wider operating temperature but do not require isolation, model SCP211T-DFTB3 is available. These models should be used when isolation is not required, such as applications in which the data line does not exit the control cabinet.

Model SCP311T-DFTB3 offers 2 kV Isolation and will stand up to -40 to 80° C temperature variations. This is our most rugged model in this series. The SCP311 is an excellent investment for protecting your expensive control equipment.



SCP Series RS-232 to RS-422/485 Converter – Shown with optional DIN Rail Adapter

Specifications

Serial Technology

RS-232	TD, RD, GND
RS-422/485 4W	TDA(-), RDA(-), TDB(+), RDB(+), GND
RS-485 2W	DATA A(-), DATA B(+), GND
Data Rate	460.8 Kbps
Isolation	2 kV (SCP311T-DFTB3)
Surge Protection	+/- 0.5 kV DC Ports, +/- 1 kV Signal Ports
Industrial Bus	Modbus ASCII/RTU
Bias	1 K Ω Switchable
Termination	120 Ω Switchable
Connectors	RS-232 – DB9F (DCE) RS-422/485 – Removable Terminal Block

Power

Source	External
Power Connector	Terminal Block
Input Voltage	10 to 30 VDC
Power Consumption	1.0 Watt Maximum

Indicators

TD / RD	Green LED (Also used to indicate power)
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Mechanical

Dimensions	99x22.9x73.7 mm (3.9x0.9 x2.9 in)
Enclosure	IP 30, Metal
Weight	0.33 lbs, 0.15 kg
MTBF SCP211 Series	313926 Hours
MTBF SCP311-DFTB3	217576 Hours
MTBF Calc. Method	MIL 217F Parts Count Reliability

Environmental

Operating Temperature	
SCP211-DFTB3	0 to 70°C
SCP211T-DFTB3	-40 to 80°C
SCP311T-DFTB3	-40 to 80°C
Storage Temperature	-40 to 85°C
Operating Humidity	0 to 95% Non-condensing

Ordering Information

SCP211-DFTB3	RS-232 to 422/485 Converter
SCP211T-DFTB3	Wide-Temp, RS-232 to RS-422/485 Converter
SCP311T-DFTB3	Wide-Temp, Isolated, RS-232 to 422/485 Converter
DRAD35	DIN Rail Adapter
PS5R-A24	24 VDC, 7.5 W Power Supply, DIN / Panel Mount
TBKT1	Replacement TB, 2 Position
TBKT2	Replacement TB, 5 Position

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Approvals / Certifications			
Emissions	FCC Class B, CISPR Class B (EN55022)		
CE	EN61000-6-2:2005	(Heavy Industrial)	
	EN61000-4-2:2008	(ESD)	8kV contact, 15kV air
	EN61000-4-3:2006	(RI)	10 V/m
	EN61000-4-4:2004	(EFT Burst)	1kV signal, 2kV power
	EN61000-4-5:2005	(Surge)	1kV signal, 500V DC, 1kV AC
	EN61000-4-6:2005	(CI)	10 Vrms

