

Industrial RS-232 to RS-422/485 Converters

Models SCP211-DFTB3, SCP211T-DFTB3, SCP311T-DFTB3

B+B SMARTWORX

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PRODUCT FEATURES

- 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
- UL Listed

The 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. Bit-wise enabled circuitry automatically detects the character time-out eliminating the need to set DIP switches for the baud rate.

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.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
SCP211-DFTB3	RS-232 to RS-422/485 Converter
SCP211T-DFTB3	RS-232 to RS-422/485 Converter, Wide-Temperature
SCP311T-DFTB3	RS-232 to RS-422/485 Converter, Wide-Temperature, Isolated

ACCESSORIES

MDR-40-24 - Power Supply, 24VDC, 1.7 A output power, DIN rail mount
DRAD35 - DIN Rail Mounting Clips, 35 mm
TBKT1 - Replacement Terminal Block, 2 position, 5.08 mm
TBKT4 - (2) Replacement Terminal Block, 5 position, 5.08 mm
9PAMF6 - RS-232 Serial Cable, DB9 male to DB9 female, 1.8 m (6 ft.)
232AMF500 - RS-232 Serial Cable, DB25 male to DB25 female, 1.8 m (6 ft.)

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	Up to 460.8 Kbps
Isolation	2 kV (Model 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/RS-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)
MECHANICAL	
Dimensions	99x22.9x73.7 mm (3.9x0.9x2.9 in)
Enclosure	IP30, Metal
Weight	0.33 lbs, 0.15 kg

MEANTIME BEFORE FAILURE (MTBF)	
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
APPROVALS / CERTIFICATIONS	
Regulatory	UL Listed, UL File Number: E222870
Emissions	FCC Class B, CISPR Class B (EN55022)
CE	EN61000-6-2 (Heavy Industrial) EN61000-4-2 (ESD) 8kV contact, 15kV air EN61000-4-3 (RI) 10 V/m EN61000-4-4 (EFT Burst) 1kV signal, 2kV power EN61000-4-5 (Surge) 1kV signal, 500V DC, 1kV AC EN61000-4-6 (CI) 10 Vrms

All product specifications are subject to change without notice.
SCP211x & SCP311T-DFTB3 series_3317ds