Model Information

Features

- Converts RS232 <=> RS422/485
- RS485 bitrate adaptive ARTc (adaptive baudrate detection in real-time)
- Full Software Configuration, NO Jumpers. Quick configuration for standard modes
- Wide range DCin 9-30V @ 200mA
- LEDs for Power, RS232 & RS485
- Line Termination: built-in 120Ω resistor, software controlled
- DIN-Rail mountable

Contact Online...

SER-485

(SER-485 PRO, SER-485 Lite)

Quick Link: | Features | More Pictures | Overview | Application | Hardware Specifications | Software Configuration | Power and Environment | Standards | Ordering Information | Options | Packaging |

More Pictures



Click on the thumbnails for the large picture ...

>Back to top

Overview

The SER-485 is an adapter to convert bidirectional signals from RS232 to RS422 and RS485 in industrial environments. In RS485 mode the data direction is managed by the bitrate adaptive function of ART (Automatic Receive Transmit control). ART analyzes the data in real-time, and adapts to the setup of the RS232 port. This way the change from transmit to receive is done automatically and quick.
All options and parameters of SER-485 operation are configured by software, controlled via an easy-to-use menu structure. This menu is accessed via standard terminal programs. The SER-485 is a NO Jumper type of device.
With SER-485 often used operation modes are selected by simple DIP switches. The full versatility is controlled by the built-in software configuration menu. The behaviour of RS422 and various options of RS485 are selected by an easy-to-use menu structure.
The internal termination resistors allow to prepare the RS485 signals for connection to customers networks. These internal resistors are controlled by the configuration. There is no need to open the case for configuration.
The SER-485 replaces the Converters VScom SER-485 Lite and SER-485 PRO.

Application

- Building automation system
- SCADA system
- RS232 line length extension
- Automatic warehouse control system
- Industrial / Factory / Laboratory automation
- Wafer fabrication system

Hardware Specifications

RS232	DCE DSub9 female

RS485	Automatic Receive Transmit control (ARTc) Adaptive baudrate detection (up to 230kbps) in real-time. This function determines the current serial speed and changes from transmit to receive function at the correct time. No user-parameter required.
Line adjust	Built-in Termination resistor 120Ω, software controlled
Surge Protection	Serial ports compliant with IEC 61000-4-2 ESD 8kV contact / 16kV air discharge
Operation Modes	RS422 RS485 by ARTc or RTS RS485 Half- and Full-Duplex Ten basic modes selected by DIP switch. More details available via Software Configuration.
Cablelength	max. 1200 m
Speed	max. 1Mbps max. 250kbps with ARTc
Connectors	RS232 1x DSub9 female RS485/RS422 1 x DSub9 male optional terminal block
Output Signals	• RS422: Tx+/-, Rx+/-, GND • RS485 2-wire: Data+/-, GND • RS485 4-wire: Tx+/-, Rx+/-, GND

>Back to top

Software Configuration

Configuration Menu	In addition to configuration by DIP-Switch various parameters and modes of signal conversion are defined by Software, via an easy-to-use menu interface. Access is via standard terminal programs (Hyperterminal, PuTTY, miniterm, ...)
Operation Modes	RS422 RS485 by RTS RS485 by ARTc (Automatic Receive Transmit control)
ARTc options RS485	Transmit/Receive change as quick, average, standard
Wiring	RS422 (4-wire) RS485 Full Duplex (4-wire) RS485 Half Duplex (2-wire) no Echo
Termination	RS422/485 line termination 120Ω, controlled via operation mode
RS485 BIAS	not required

>Back to top

Power and Environment

Power requirements	9-30V DC, 500mW
Protection	Compliant with IEC 61000-4-2 ESD 4kV contact / 8kV air discharge
Dimension	115×73×25 mm³ (W×L×H)
Operating Temp	0°C - 60°C
Storage Temp	-20°C - 85°C
Case	SECC sheet metal (1mm)
Weight	220 g

>Back to top

Standards

Declarations	CE, FCC
EMI	• EN 55022 Class B • EN 61000-3-2: Limits of harmonic current emissions • EN 61000-3-3: Limitation of voltage changes • 47 CFR FCC Part 15 Subpart B

EMS (EN 55024)	• EN 61000-4-3: Radiated RFI • EN 61000-4-4: Electrical Fast Transient • EN 61000-4-5: Surge • EN 61000-4-6: Induced RFI • EN 61000-4-8: Power Frequency Magnetic Field • EN 61000-4-11: Power supply dips
ESD	EN 61000-4-2 4kV contact 8kV air for • Serial Ports • USB • Ethernet • DC Power connector

>Back to top

Ordering Information

414	SER-485
415	SER-485 ISO

>Back to top

Options

663	5-pin Terminal block adapter to DB9 female
6033	Power supply adapter 9V DC, 300mA
6692	DK-NCP DIN-Rail mounting kit
6693	WK-NCP Wallmount kit

>Back to top

Packaging

Packing list	• Converter SER-485 • Terminal block for Power Supply • English Documentation

>Back to top

SER-485

>Back

Configuration Menu

>Back

```
 VScom RS422/485 Converter SER-485 Plus ISO v1.3.0      www.vscom.de
 SN: 00000000  HW Ver: 1.0  Prd Date: 2016-05-31 www.visionsystems.de

 Operation Modes
  1:   RS-422
  2:   RS-485 controlled by RTS
  3: * RS-485 controlled by ART
  a: *  Tx switch off Delay (long,  11 bit)
  b:    Tx switch off Delay (medium, 6 bit)
  c:    Tx switch off Delay (short,  2 bit)

 Cabling Schemes
  d: * Full Duplex (4-wire)
  e:   Half Duplex (2-wire)
  h: * Terminate Data-lines

  W: + Write to memory          R:   Read from memory

Enter new choice :
```

Terminal Block Adapter

>Back