Model Information

Features

- Converts RS232 <=> RS422/485
- RS422/485 galvanical isolated
- 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 ISO
(SER-485 PRO-SI)

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More Pictures



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Overview

The SER-485 ISO 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.
The SER-485 ISO is an galvanical isolated (2.5kV) variant of the SER-485. Further the device is Surge Protected up to 8kV.
All options and parameters of SER-485 ISO operation are configured by software, controlled via an easy-to-use menu structure. This menu is accessed via standard terminal programs. The SER-485 ISO is a NO Jumper type of device.
With SER-485 ISO 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 ISO replaces the Converter VScom SER-485 PRO-SI.

Application

- Building automation system
- SCADA system
- RS232 line length extension
- RS232 line optical isolation
- 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
Isolation	Port RS422/485 galvanic isolation 2.5kV
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	All Signals galvanically isolated • RS422: Tx+/-, Rx+/-, GND • RS485 2-wire: Data+/-, GND • RS485 4-wire: Tx+/-, Rx+/-, GND

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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

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Power and Environment

Power requirements	9-30V DC, 600mW
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	230 g

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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

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Ordering Information

415	SER-485 ISO
414	SER-485

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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

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Packaging

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

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SER-485 ISO

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Configuration Menu

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 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

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