

RS232/RS485 Converter **RS2**

SEE IT ALL

RS232/RS485 DIN CONVERTER



PRODUCT DESCRIPTION

The RS2 communication converter has been designed for signal conversion between RS232 and RS485 / 422 communication interfaces. The two incorporated interfaces are galvanically isolated. The set of practical options provides for an ideal choice for any communication system demanding a reliable and trouble-free operation.

The converter is equipped with automated detection of communication rate ADC ("AutoDirectionCircuitry") on the side of the RS485 communication interface, significantly simplifying the system integration of the device, as the user no longer requires a program interface or any additional corrections and/or device settings after the installation in case the transmitting equipment is replaced.

The RS232 communication interface is equipped with detection as well. The detection function identifies the type of final control device (data terminal, e.g. a computer): the user simply specifies on the RS2 converter whether the connected device is operating as a DTE ("Data Terminal Equipment") unit or a DCE ("Data Circuit-Terminating Equipment") unit. This eliminates the need for a crossover null model cable, standardising the use of unified connecting cables and removing the need for any additional interventions on the installations in case the polarisation of control unit is changed.

RS485 supports the integration of up to 256 units into a common network, using the RS485 or RS422 communication protocol for information exchange. The RS2 converter supports all standard RS232 device communication rates (up to 116Kbps) and operates on a single voltage power supply.

FEATURES

- ▶ **RS232 - RS485/422 CONVERTER**
- ▶ **GALVANIC ISOLATION OF INTERFACES**
- ▶ **AUTOMATED COMMUNICATION RATE DETECTION „ADC“**
- ▶ **THE DTE/DCE TERMINAL TYPE IS SELECTED ON THE RS232 INTERFACE**
- ▶ **Unified RS connecting cables**
- ▶ **UP TO 256 DEVICES CAN BE INTEGRATED INTO A COMMON NETWORK**
- ▶ **SUPPORT FOR ALL STANDARD RS232 COMMUNICATION RATES**
- ▶ **ALL SETTINGS ARE FULLY AUTOMATED**
- ▶ **No program interface**
- ▶ **Simple system upgrade**
- ▶ **AN IDEAL SELECTION FOR ANY RS COMMUNICATION SYSTEM**

Ordering Code

RS -
Version | Case Type
[non-selectable] | [currently non-selectable]

The device is equipped with LED indicators for data exchange direction and power supply (including a galvanically isolated power supply). The device is housed in an industry-standard MINI DIN case.

TECHNICAL DATA

GENERAL DATA

PARAMETER	TYPE / CONDITIONS	MIN	TYPICAL	MAX	UNITS
GENERAL					
Power Supply	DC		12		[V]
Current Requirement			100		[mA]
Power Consumption	DC 10 V ~ DC 20 V			3	[W]
Data Rate				200	[kbps]
Isolation RS 232 ~ RS 485			500		[Vrms]
Power Supply Connector					
ENVIRONMENTAL					
Operating Temperature		-30		80	[° C]
Storage Temperature		-40		85	[° C]
Humidity	Non-Condensing	5		95	[%]
MTBF	Fixed Temperature 35°C per MIL217F		240 000		[h]
MECHANICAL					
Physical Dimensions	MINI DIN	96	35	57	[mm]
Weight			70		[g]
Case Construction	Industrial Plastic				

RS 485 INTERFACE

PARAMETER	TYPE / CONDITIONS	MIN	TYPICAL	MAX	UNITS
ESD Protection	A and B		± 14		[kV]
Driver Differential Output Time	Rise or Fall Time (RDIFF = 54Ω, CL = 50pF)	250		900	[ns]
Connector Type	RS485/DTE-DCE 5 Pole Terminal Block R5.08				
TRANSMITTER					
Driver Short-Circuit Output Current				250	[mA]
Short-Circuit-Foldback Output Current		-250			[mA]
RECEIVER					
Receiver Differential Threshold Voltage		-100		100	[mV]
Receiver Input Hysteresis			15		[mV]
Receiver Input Resistance		96			[kΩ]



TECHNICAL DATA

RS 232 INTERFACE

PARAMETER	TYPE / CONDITIONS	MIN	TYPICAL	MAX	UNITS
Connector Type	DB 9				
TRANSMITTER					
Output Voltage Swing		± 5.0	± 7.5		[V]
Output Short-Circuit Current		± 7	± 25		[mA]
RECEIVER					
Input Voltage Operation Range				± 15	[V]