

# Network technology

## Network technology USB RS485-IS converter

For Zone 2

9787/13-11-12 Art. No. 295356



- Reliable, bidirectional conversion from USB to RS485
- Versions with Ex i USB and/or Ex i RS485 interface
- Power supply via USB port
- LED status indicators
- Very resistant to interference
- Extended temperature range -40 to +75 °C
- Installation in Zones 1 and 2

MY R. STAHL 9787A



The USB RS485 converters are used to convert a USB interface to an RS485 interface. Depending on the version, the USB interface and/or the RS-485 can be operated in an intrinsically safe configuration (USB-IS or RS485-IS, according to PI standard).

Ideal for converting the IS1+ USB ServiceBus of the 9442 CPU into an RS485 fieldbus.

### Technical Data

#### Explosion Protection

Application range (zones)	2
Ex interface zone	0, 1, 2
IECEX gas certificate	IECEX TUR 23.0019X
IECEX gas explosion protection	Ex ec [ia Ga] IIC T4 Gc
ATEX gas certificate	TÜV 23 ATEX 8838 X
ATEX gas explosion protection	Ex II 3 (1) G Ex ec [ia Ga] IIC T4 Gc
Certificates	ATEX (TUR)
Installation	Zone 2

#### Electrical Data

USB version	standard
USB connection	Type B socket X2, 5-pole
Number of USB ports	1
USB specification	USB 2.0
Max. USB conductor length	3 m
Version RS485	Ex ia (RS485-IS)
RS485 connection	D-SUB DE-9 socket X1, 9-pole
Number of RS485 ports	1
RS485 specification	RS485 (TIA/EIA-485-A)
RS485 data rate	Max. 1.5 Mbps
Max. RS485 conductor length	400 m at 500 kbps 200 m at 1.5 Mbps 1000 m at 187.5 kbps 1200 m at 9.6 to 93.75 kbps

#### Auxiliary Power

Power supply connection	Via USB port
Auxiliary power nominal voltage	5 V DC (4.5 to 5.5 V)
Current consumption	60 mA

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### Auxiliary Power

Max. power consumption	300 mW
Max. power dissipation outputs	122 mW
Polarity reversal protection	Yes, mechanical

### Galvanic Isolation

Test voltage for galvanic separation	Acc. to standard EN 60950-1
Auxiliary power/system components	≥ 1500 V AC

### Device Specific Data

RS485 tightening torque	0.5-0.6 Nm
Power RS485 LED	"RS485" LED, green
Power USB LED	"USB" LED, green
LED Receive RS485 to USB	"RX" LED, yellow
LED Transmit RS485 to USB	"TX" LED, yellow

### Ambient Conditions

Ambient temperature	-40°C ... +75°C
Ambient temperature	-40°F ... +167°F
Storage temperature	-40°C ... +80°C
Max. operating altitude	< 2000 m
Max. relative humidity	95% (without condensation)

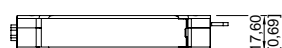
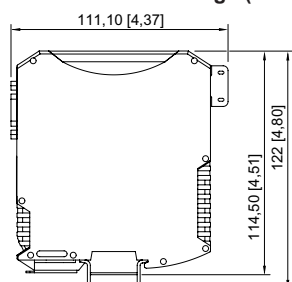
### Mechanical Data

Degree of protection (IP) (IEC 60529)	IP30
Module enclosure	PA 6.6
Fire resistance (UL 94)	V0
Pollutant class	Corresponds to G3
Width	17.6 mm
Depth	114.5 mm
Length	111.1 mm
Weight	170 g
Weight	0.37 lb

### Mounting / Installation

Mounting type	on NS 35/7.5 DIN rail Not perforated (IEC/EN 60715)
Mounting orientation	Horizontal

### Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



### Accessories

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### Sub-D plug, RS-485 IS, angled

Art. No.



9-pin for connecting fieldbus or ServiceBus to CPU & power module Series 9440/22, 9185 fieldbus isolating repeater and 9786/12-11 media converter.  
The end-of-line resistor is installed and switchable.  
For RS 485 IS (according to Profibus standard).  
Ambient temperature: -40 °C to +70 °C

162693



9-pin for connecting 9185 fieldbus isolating repeater and 9786/12-11 media converter.  
The end-of-line resistor is installed. For RS-485 IS (according to Profibus standard).  
Ambient temperature: -25 °C to +70 °C

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### USB cable type A to type B

Art. No.



Cable type: USB 2 5-pin with shield; colour (sheath): Black  
USB A to USB B connector; length: 1000 mm

298746

### Sub-D plug, RS-485

Art. No.



9-pin for connecting fieldbus or ServiceBus to CPU & power module Type 9440/15, 9185 fieldbus isolating repeater and 9786/15-12 media converter.  
The end-of-line resistor is installed and switchable. For non-intrinsically safe RS-485.  
Ambient temperature: -40 °C to +75 °C

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