



- Reliable, bidirectional conversion from USB to RS485
- LED status displays
- Extreme robust against interference
- Extended temperature range -40 to +75 °C
- Power supply via USB port

WebCode **9787A**



The USB RS485 converter for Zone 2 and Class I, Div. 2 is designed to convert USB data into serial data for the RS485 bus. The USB RS485 converter is intended for installation in Zone 2 and Class I, Div. 2 and can be used for various applications. RS485 is a widespread fieldbus often used for service purposes. Since computers and other devices very rarely have an RS485 interface but frequently have USB ports, the missing interface can be produced with this device.

Technical Data

Explosion Protection

| | |
|--------------------------------|--------------------------------------|
| Application range (zones) | 2 22 |
| Ex interface zone | 2 |
| IECEX gas certificate | IECEX TUR 18.0038X |
| IECEX gas explosion protection | Ex ec IIC T4 Gc |
| ATEX gas certificate | TÜV 18 ATEX 8212 X |
| ATEX gas explosion protection | Ⓔ II 3 G Ex ec IIC T4 Gc |
| Certificates | ATEX (TUR), IECEX (TUR), Korea (KTL) |
| Ship approval | ABS, BVIS, EU RO MR (DNV), KR, LR |

Electrical Data

| | |
|-----------------------------|---|
| USB connection | Type B socket X2, 5-pole |
| Number of USB ports | 1 |
| USB specification | USB 2.0 |
| Max. USB conductor length | 3 m |
| Strain relief USB | Protection from unintentional separation |
| RS485 connection | D-SUB DE-9 socket X1, 9-pole |
| Number of RS485 ports | 1 |
| RS485 specification | RS485 |
| RS485 data rate | Max. 1.5 Mbps |
| EOL resistor RS485 | Externally in the D-SUB plug connector (200 Ω) |
| Max. RS485 conductor length | 400 m at 500 kbps 200 m at 1.5 Mbps 1200 m at 9.6 to 93.75 kbps 1000 m at 187.5 kbps |

Auxiliary Power

| | |
|---------------------------------|-----------------------|
| Power supply connection | Via USB port |
| Auxiliary power nominal voltage | 5 V DC (4.5 to 5.5 V) |

Auxiliary Power

| | |
|---|---|
| Current consumption | 50 mA |
| Max. power consumption | 250 mW |
| Max. power dissipation outputs | 150 mW |
| Polarity reversal protection | Yes, mechanical |
| Surge voltage category | I to USB in accordance with DIN EN 60664, III to RS485 in accordance with DIN EN 60664 |
| Bypassing in the event of a voltage failure | None, in accordance with EN 61000-4-11 |

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 |
| Drivers computer software | can be obtained at http://www.fdtichip.com/FTDrivers - Virtual COM Port (VCP) |
| 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

| | |
|-------------------------------------|-------------------|
| IP degree of protection (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 | 0.17 kg |
| Weight | 0.37 lb |

Mounting / Installation

| | |
|----------------------|------------------------|
| Mounting orientation | Vertical Horizontal |
|----------------------|------------------------|

Network Technology

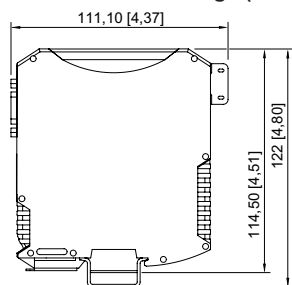
Network technology USB RS485 converter

For Zone 2

9787/15-11-11 Art. No. 266011



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



Accessories

USB cable Type A to Type B



Cable type: USB 2 5-pole with shielding
Colour (sheath): black
Connector plug USB A to USB B; Length: 3000 mm

Art. No.

266833

298746

Sub-D plug + PG interface



9-pole for connection of fieldbus or Servicebus to CPU & power module type 9440/15 and fieldbus isolating repeater 9185.
The end-of-line resistor is installed and switchable. For non-intrinsically safe RS-485.

Art. No.

105715

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.