

**UT-8251A-EN**  
**USB/RS232 to CAN-Bus Intelligent Protocol**  
**Converter**  
**User Manual**

## 1. Product Overview

The UT-8251A-EN is a high-performance USB and RS-232 to CAN-Bus bus communication protocol converter that supports the interconnection between USB and CAN-Bus or between RS-232 and CAN-Bus. It supports power sources or USB power supply, which expands the application range of the converter. The UT-8251A-EN provides a configuration tool, which allows user to flexibly set the converter interface parameters. It uses industrial-grade high-standard design; the CAN communication interface has certain anti-interference and anti-surge capabilities because it is isolated from the system. It is widely used in industrial control and data communication systems.

## 2. Technical Parameters

- ✧ Supports two-way data transmission between CAN-Bus and RS-232.
- ✧ Supports two-way data transmission between CAN-Bus and RS-232.
- ✧ Supports CAN2.0 protocol.
- ✧ Integrates one CAN-bus communication interface, and supports 5Kbps-1Mbps communication rate.
- ✧ Integrates one USB 2.0 interface (12 Mbits).
- ✧ Integrates one RS-232/485 communication interface, and supports 600bps-230Kbps communication rate.
- ✧ Operating voltage: 12-36 V DC/USB power supply
- ✧ Operating current:  $\leq 150\text{mA}@12\text{V}$
- ✧ Operating temperature:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- ✧ Storage temperature:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- ✧ Operating humidity: 5-95% (non-condensing)
- ✧ Storage humidity: 5-95% (non-condensing)
- ✧ Isolation voltage: 1,000 V DC
- ✧ Static protection: air 8 kV, contact 6 kV
- ✧ Surge protection: power port: 1.2/50 us; common mode 2 kV, differential mode 1 kV

CAN port: 600 W

RS-232 port: 600 W

## 3. Indicators

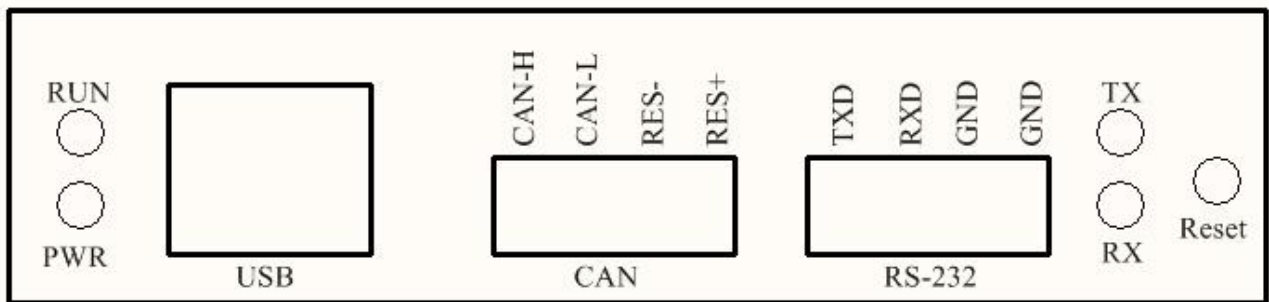
Definiton	Color	Name	Description
PWR	Red	Power Indicator	The indicator is solid on when the power supply is normal.
RUN	Green	System operation indicator	The indicator flashes when the system is running properly.
TX	Green	Communication indicator	The indicator flashes when the CAN is sending data. The indicator is off when all data is sent.
RX	Yellow	Communication indicator	The indicator flashes when the CAN is receiving data. The indicator is off when all data is received.

#### 4. Button Definitions

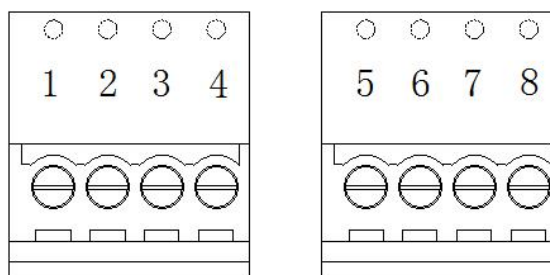
**Reset button:** Hold down this button for 3 seconds to reset the system. Hold down this button for 5 seconds to restore factory settings.

#### 5. Pin Definitions

(1) Silk screen



(2) Terminal pins

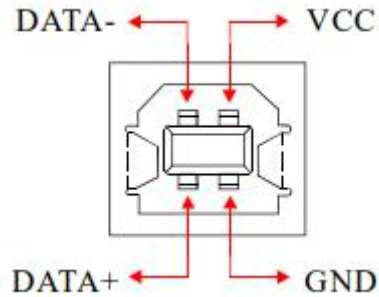


3.81-4pin phoenix terminal

Pin No.	Pin Name	Pin Description	Pin No.	Pin Name	Pin Description
1	CAN-H	CAN-H signal connection terminal	5	TXD	RS-232 data sending
2	CAN-L	CAN-L signal connection terminal	6	RXD	RS-232 data receiving
3	RES+	CAN matching	7	GND	Signal ground

		resistance terminal 1			
4	RES-	CAN matching resistance terminal 2	8	GND	Signal ground

### (3) USB signal input and pin definitions



USB-B female terminal

USB	Definition	Description
1	VCC	5 V power supply
2	DATA-	Data negative
3	DATA+	Data positive
4	GND	Power ground

## 6. Structure and Dimensions

