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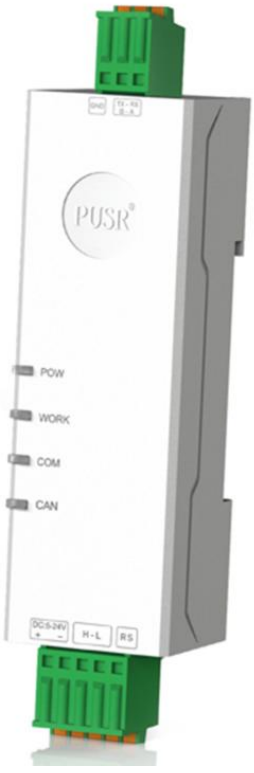


USR-CAN114/112

Lipstick CAN Protocol

CAN to RS485/RS232 bidirectional transmission

Easy access to CAN-BUS



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Product Introduction

USR-CAN114/112 is an ultra-small rail-type CAN to RS485/RS232 device independently developed by the Internet of Things. This series of products has the characteristics of high speed, low latency, small size, and simple use. It supports five data conversion modes: transparent conversion, transparent tape ID conversion, standard protocol conversion, Modbus RTU conversion and custom conversion. It can easily realize the interconnection between CAN devices and serial devices.

Can quickly connect serial devices to CAN-BUS bus, Modbus mode, can play a single CAN interface instead of multi-channel 485 lines. It can be widely used in various industrial scenarios such as automation factories, automobile electronics, new energy charging piles, vehicle monitoring systems, etc.

Product Feature

- CAN and RS485/RS232 bidirectional conversion
- CAN2.0A and CAN2.0B standard protocols
- Support transparent conversion, transparent band ID conversion, protocol conversion, MODBUS RTU conversion, custom protocol conversion
- Support extended frame only, standard frame only, custom frame ID reception
- Support 14 sets of custom frame ID filtering to avoid data interference
- Multi-master and multi-slave function, replacing multi-channel 485 with single-channel CAN interface
- Support custom baud rate
- Support PC, serial AT command configuration
- Support PC firmware upgrade, firmware update is more convenient
- High and low temperature resistance,-40℃~85℃ stable operation
- With 120 ohm termination resistor
- Support 5-24V wide voltage input, with anti-reverse connection protection
- Reliable hardware protection, electrostatic protection, surge, burst protection
- Hardware watchdog function, crash automatic restart, module more stable and reliable

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Product Application

CAN to RS485/RS232 bidirectional data transmission



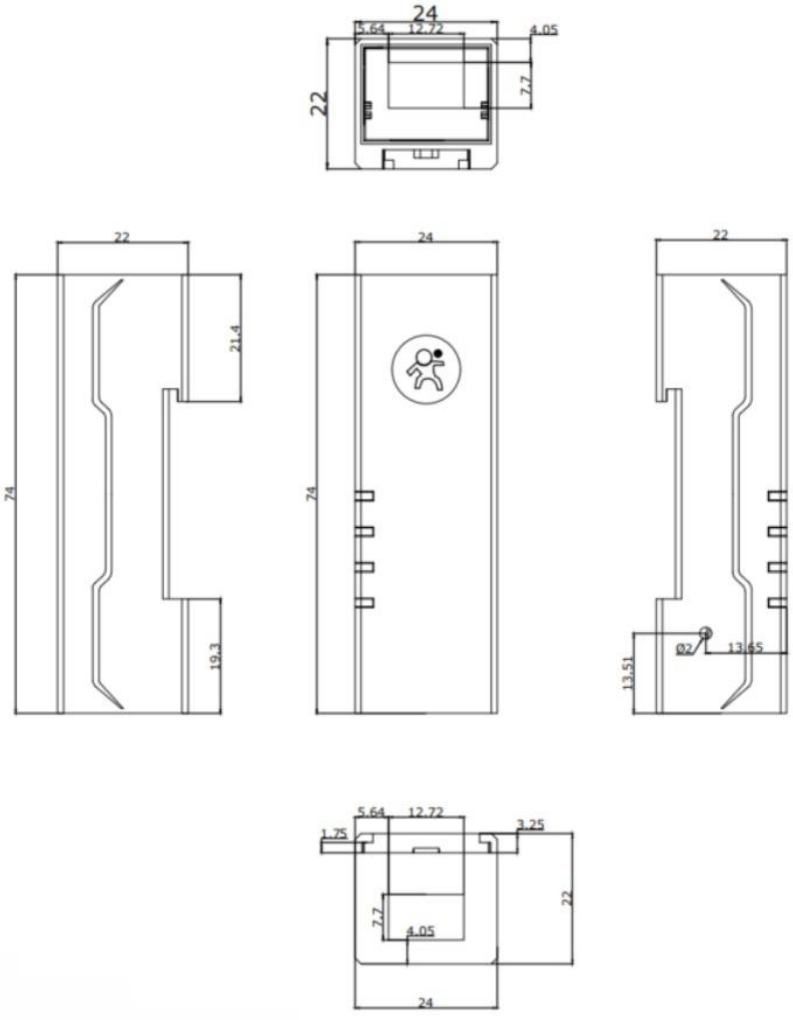
Product Parameters

Power supply	
Service voltage	DC:5~24 V, 12V 1A recommended
Power dissipation	No load: 10.1mA/12V, maximum power consumption: 10.7mA/12V. Full load: 12.2mA/12V, maximum power consumption:16.7mA /12V.
Construction	
Size	74*24*22mm (length * width * height, excluding terminals)
Installation method	rail mounting
Reload key	Press and hold to restore factory settings
Serial port	
Serial port Wiring definition	RX/A: RX--RS232 receiver;A--RS485 receiver TX/B: TX--RS232 transmitter;B--RS485 transmitter GND: Digital Ground
Serial port Baud rate	600-230.4K（bps）
Data bits	7、8
Parity bit	When the data bit is 7 bits, it supports Odd, Even, Mark and Space; When the data bit is 8 bits, None, Odd and Even are supported.
Stop bit	1、2
CAN port	
CAN port Wiring definition	H: CAN_H signal line connection terminal L:CAN_L signal line connection terminal RS: 120Ω termination resistance of CAN, connect RS to L, and incorporate the 120Ω resistance inside the module into the CAN bus.
Baud rate	5kbps~1000 Kbps, support custom baud rate
Terminal resistance	Built-in CAN bus 120Ω termination resistor
Protection	
Static	GB/T 17626.2-2018, Level 3, class B, air discharge 8KV
Surge	GB/T 17626.5-2019, Level 3, class B, differential mode of power supply circuit 1KV, common mode of CAN circuit 2KV
Burst	GB/T 17626.4-2018, Level 3, class B, power circuit 2KV, RS485/RS232 circuit 1KV, CAN circuit 1KV
Indicator light	
Power supply	POW, red indicator light. On and off
Work	WORK, green indicator light. Flashing: normal operation of equipment, frequency 1s; Strobe: passive error state of CAN bus; Constant light: CAN bus operation abnormal
Serial port	COM, green indicator light. Flashing: indicates that serial port data is being received
CAN port	CAN, green indicator light. Flashing: indicates that CAN port has data being received
Work environment	
Working temperature/ humidity	Temperature: -40℃ ； Humidity: 5%~95% RH(no condensation)
Storage temperature /humidity	Temperature: -40℃ to 105℃ ； Humidity: 5%~95% RH(no condensation)

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Software function	
Conversion of mode	Transparent conversion, Transparent band ID conversion, Standard conversion, Modbus conversion, Custom frame header/trailer conversion
CAN ID	Support standard frame, remote frame
Frame ID filtering	Support standard frames only, remote frames only, custom input frame IDs (up to 14 groups)
Serial packet length	Support custom subcontracting length
Switch direction	Support bidirectional conversion, serial to CAN only, CAN to serial only
Firmware upgrade	Support firmware upgrade on PC
Parameter configuration	AT command, PC software configuration

Product Structure



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