JetCon 2201-w / 2201i-w / 2201i-wTB

Industrial RS-232/422/485 Converter

- Automatic RS-232 to RS-422/485 converter
- Auto baud rate and direction control
- High speed up to 921.6 Kbps
- RS-422/485 3000VDC isolation protection (JetCon 2201i-w)
- Supports RX bias and terminal resistor
- Easy configuration by DIP switch without resetting power
- Din-Rail mount and wall mount robust aluminum case
- Terminal block 5-pin at RS-232 (JetCon 2201i-wTB)
- -40~70°C operating temperature for hazardous environment applications

CE FC RoHS

921.6Kbps | 3KV Isolation | -40~70°C

Overview

The standard RS-232 protocol has been widely used in most of industrial computer systems for serial port communication. However, it has its limitations in terms of transmission speed, rangeand networking capabilities. Furthermore, the RS-422 and RS-485 standard has overcome the limitations mentioned above by utilizing different voltage lines for data and control signals. Hence, the RS-232 to RS-422/485 converter becomes very popular to be deployed in the industrial communication network for longer distance and higher reliability, such as JetCon 2201-w series.

High Speed and Auto Baud control

The JetCon 2201 series features embedded high performance ASIC to provide graceful signal conversion and speed Control.

The data rate supports up to 921.6Kbps, satisfying the need of most automatic control system.

User Friendly Design Line Terminator/RX Bias Control

In a long distance transmission, the RS-422/485 differential signal is easily interfered by noises which result in the communication interruption; JetCon 2201 provides 120ohm line terminator and receiver biasing control functions to ensure the quality of transmission by using the DIP switch to activate those features.
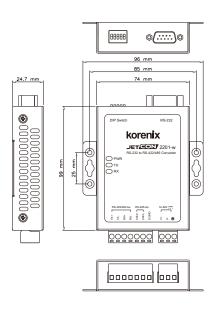
Hazardous Environment application

In the factory floor, there are too many interferences coming from field site equipments, such as robot, Variable- frequency motor and high-power magnetic –contactor. Those devices may produce huge electric field, magnetic field or surge and coupling into the communication lines near the devices and make all of devices work abnormally. Therefore, Electrical Magnetic Susceptibility (EMS) is important for the industrial communication. The JetCon 2201 series provides great EMS ability and complies with EN 61000-6-2 Heavy Industrial level EMS.

The differential serial signal interface also adopts 3000V isolation protection to prevent inrush surge or lighting noise (JetCon 2201i-w).
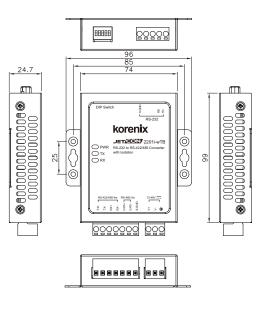
Item Std.	Commercial Grade	Heavy Ind. Grade (JetCon 2201)*
ESD	Contact 4KV/Air 8KV	Contact 8KV/Air 15KV - Over Level
RS	3V/m	10V/m
EFT	0.5Kv ,Power, I/O	2KV Power, 1KV I/O
Surge	1KV	2KV
CS	3V	10V

Note:*Heavy Industrial grade.

Dimensions (Unit –mm)

JetCon 2201-w

JetCon 2201i-wTB

Software Specifications

Technology
Standard:
EIA/TIA-232 RS-232 (ITU-T v.28)
EIA/TIA-422 RS-422 (ITU-T v.11)
EIA/TIA-485 RS-485 (ISO/IEC8284)

Interface
Forwarding Rate: Auto baud rate 300 to 921.6Kbps
Port:
RS-232 x1
RS-422 x1
RS-485 2/4 wire x1
Connector:
RS-232: DB-9 Female
RS-232: Terminal block (JetCon 2201i-wTB)
RS-422/485: Removable terminal block
Link Distance:
RS-232: 50 feet
RS-422: 4000 feet
RS-485: 4000 feet
Serial Signals:
RS-422: TxD+, TxD-, RxD+, RxD-
RS-485 4 wires: TxD+, TxD-, RxD+, RxD-
RS-485 2 wires: Data+, Data-
Signal Ground
Configuration DIP Switch:
DIP-switch 1,2: RS-422/485 wiring mode selection
DIP-switch 3,4: RS-422/485 line terminator selection
DIP-switch 5,6: RS-422/485 biasing resistor selection
DIP-switch has plate (JetCon 2201i-wTB)

Diagnostic LED:
System power (Pwr): Green
Receive Data (Rx):Yellow blinking
Transmit Data (Tx): Green blinking

Power Requirements
System Power:
DC 12~48V input with polarity reverse correction.
Power Consumption: 1 Watt (max.)

Mechanical
Installation: Wall mount or DIN Rail mount
Case: Aluminum metal case
Dimensions: 24.7mm(H) x 74mm (W) x99 mm (D)
Weight:
0.24kg with package
0.15kg without package

Environmental
Operating Temperature: -40 ~70℃
Operating Humidity: 0% ~ 90% (non-condensing)
Storage Temperature: -40 ~ 80℃
Storage Humidity: 0%~ 95% (non-condensing)

Regulatory Approvals
EMI:
FCC class B, CE/EN55022 class B
CE/EN61000-3-2:2001 Harmonic test
CE/EN61000-3-3: 1995 Flicker test
Shock: IEC60068-2-27
Vibration: IEC60068-2-6
Free Fall: IEC60068-2-32
MTBF: 5366,967 Hours ,MIL-HDBK-217F
Warranty: 5 Years

Ordering Information

JetCon 2201-w Industrial RS232 to RS422/485 Rail Converter, -40~70℃ operating Temp.

Includes:

- JetCon 2201-w
- DIN rail kit
- Quick Installation Guide

JetCon 2201i-w Industrial RS232 to RS422/485 Rail Converter, 3KV isolation,-40~70℃ operating Temp.

Includes:

- JetCon 2201i-w
- DIN rail kit
- Quick Installation Guide

JetCon 2201i-wTB Industrial RS232 to RS422/485 Rail Converter, 3KV isolation,-40~70℃ operating Temp.

with terminal block 5-pin at RS-232

Includes:

- JetCon 2201i-wTB
- DIN rail kit
- Quick Installation Guide