USBH232-MF2U X

EN

Dual RS232 Adapter | **Built-in 2-Port USB 2.0 Hub** | **DB9 Male/Female, TX/RX/Power LED**

OVERVIEW

The SerialSyncX USBH232-MF2U is a professional-grade USB to dual-channel RS232 DB9 adapter with a built-in 2-port USB 2.0 hub, engineered for industrial automation and multi-device serial connectivity. It expands two fully independent RS232 serial ports plus two extra USB ports from a single upstream USB connection, simplifying wiring on your debug workstation and inside control cabinets.

Each RS232 channel adopts a dedicated independent controller, enabling true parallel operation with no shared bandwidth to support simultaneous control and monitoring of two separate serial devices. Per-port isolated design guarantees reliable 24/7 continuous operation. Every serial port is fitted with dedicated TX, RX and power indicator LEDs for real-time serial data visualization, streamlining diagnostics and speeding up troubleshooting during installation, field maintenance and system validation.



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Dual-channel RS232 adapter with integrated USB hub

One DB9 male and one DB9 female connector eliminate the need for extra gender changers on-site. The onboard USB 2.0 hub accepts flash drives, security dongles and input peripherals, removing the requirement for separate external hubs and reducing cable clutter. Built around a rugged metal enclosure, this industrial converter delivers robust mechanical protection and strong EMI resistance to cope with harsh industrial environments. Data and power are carried over one USB Type-B port for stable long-term links. Bus-powered and plug-and-play, it supports Windows, Linux and macOS, well suited for embedded development, industrial control, POS integration, serial hardware testing and permanent industrial debugging deployments.

KEY FEATURES

- All-in-one design: dual independent RS232 + 2-port USB 2.0 hub in single metal housing
- Separate controller per serial channel, fully parallel operation without bandwidth contention
- TX, RX and power status LEDs for each RS232 port
- DB9 male + DB9 female combo, no extra gender adapters required on site
- Integrated USB hub reduces separate peripherals and cable complexity
- Solid metal casing with excellent EMI suppression for industrial settings
- USB Type-B upstream for combined data transfer and bus power supply
- Plug-and-play, cross-platform support: Windows, Linux, macOS

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SPECIFICATIONS

SERIAL INTERFACE

Serial Standard	EIA/TIA RS232
Serial Ports	2 × DB9, 1 Male + 1 Female
Channel Control	Independent controller per channel
Isolation	Per-port isolated design
Indicators	TX / RX / Power LED for each channel

USB & MECHANICAL

Upstream Interface	USB 2.0 Type-B
Integrated USB Hub	2 × USB 2.0 downstream ports
Power Supply	USB bus-powered
Enclosure	Metal housing, EMI resistant
Dimensions	94 × 70 × 26 mm (L × W × H)
Supported OS	Windows, Linux, macOS

INTERFACE DEFINITION

FRONT PANEL

DB9 Male	RS232 serial channel 1
DB9 Female	RS232 serial channel 2
LED CH1 / CH2	TX, RX, Power status indicator
USB 2.0 ×2	Hub downstream ports

REAR PANEL

USB Type-B Upstream	Connect to host PC for data + power

TITTRON SERIAL PRODUCT FAMILY

Tittron offers four dedicated serial converter families for different industrial and embedded requirements:

- **S** — **SerialSyncX**
- **E** — **SerialEdgeX**
- **G** — **SerialGuardX**
- **P** — **SerialPulseX**

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APPLICATION GUIDANCE

Connect the USB cable to your host computer. Attach your RS232 serial devices to the DB9 ports. USB peripherals such as flash drives or dongles can be plugged into the built-in hub ports. Two independent COM ports will appear within your operating system, enabling parallel serial control and monitoring for two separate devices simultaneously.

IMPORTANT NOTES

This adapter follows EIA/TIA-232 standard and is intended for point-to-point RS232 serial communication. Do not connect directly to RS485 or RS422 buses without a dedicated signal converter. Total current available for the downstream USB hub is limited by the host USB port’s output capacity. For high-power USB devices, use an externally powered USB hub instead.