Industrial USB 2.0 DIN Rail Converters
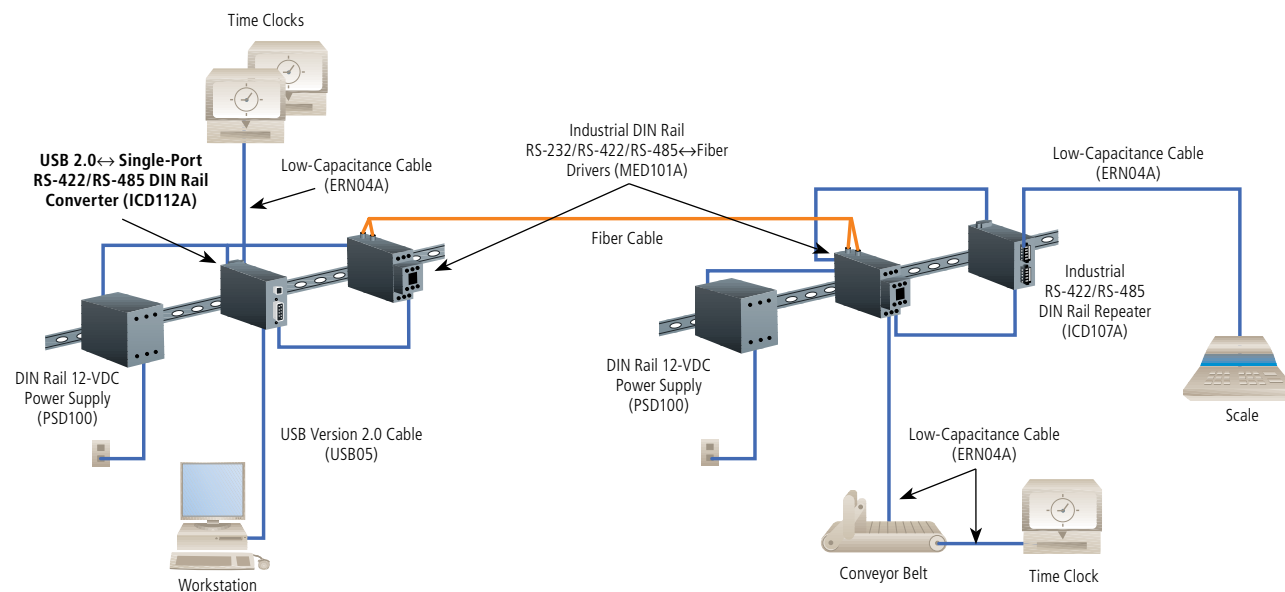
Connect your USB 2.0 computer to RS-232 commercial and industrial equipment.

Typical application.

Time Clocks

USB 2.0↔ Single-Port
RS-422/RS-485 DIN Rail
Converter (ICD112A)

Low-Capacitance Cable
(ERN04A)

Industrial DIN Rail
RS-232/RS-422/RS-485↔Fiber
Drivers (MED101A)

Low-Capacitance Cable
(ERN04A)

Fiber Cable

Industrial
RS-422/RS-485
DIN Rail Repeater
(ICD107A)

DIN Rail 12-VDC
Power Supply
(PSD100)

USB Version 2.0 Cable
(USB05)

DIN Rail 12-VDC
Power Supply
(PSD100)

Scale

Low-Capacitance Cable
(ERN04A)

Workstation

Conveyor Belt

Time Clock

OVERVIEW

USB 2.0↔Single- and Dual-Port RS-232 DIN Rail Converters (ICD110A–ICD111A)

With these converters, you can add one or two COM ports to your PC. The converters protect against surges, too. They provide 15-kV ESD surge protection against spikes and ground loops. Plus, the converters support data rates up to 12 Mbps for USB and 460.8 kbps for RS-232, and they use all RS-232 handshaking.

USB 2.0↔Single- and Dual-Port RS-422/RS-485 DIN Rail Converters (ICD112A–ICD113A)

Increase your PC's capability by adding one or two COM ports. These USB 2.0↔RS-422/RS-485 DIN Rail Converters include one or two pluggable terminal blocks.

They're ideal for use on 2-wire RS-485 or 4-wire RS-422/RS-485 networks. The converters achieve data rates up to 12 Mbps for USB and 921.6 kbps for RS-422/RS-485. Plus, they support Send Data Control, TDS, TDB, RDA, RDB, and GND signals.

Technically Speaking

DIN rail usage.

DIN rail is an industry-standard metal rail, usually installed inside an electrical enclosure, which serves as a mount for small electrical devices specially designed for use with DIN rails. These devices snap right onto the rails, sometimes requiring a set screw, and are then wired together.

Many different devices are available for mounting on DIN rails: terminal blocks, interface converters, media converter switches, repeaters, surge protectors, PLCs, fuses, or power supplies, just to name a few.

DIN rails are a space-saving way to accommodate components. And because DIN rail devices are so easy to install, replace, maintain, and inspect, this is an exceptionally convenient system that has become very popular in recent years.

A standard DIN rail is 35 mm wide with raised-lip edges, its dimensions outlined by the Deutsche Institut für Normung, a German standardization body. Rails are generally available in aluminum or steel and may be cut for installation. Depending on the requirements of the mounted components, the rail may need to be grounded.

04/14/2010
#26789

724-746-5500 | blackbox.com

◇ BLACK BOX
NETWORK SERVICES

2 of 3

TECH SPECS

Isolation and Surge Protection — Isolation: 3000 VDC optical isolation between ports;
   ICD110–ICD111A also provide 15-kV ESD surge protection
MTBF — 188,048 hours
Operating Systems Supported — Windows 98/Me/XP, Windows 2000, and Windows Vista
Speed (Maximum) — USB: 12 Mbps;
   RS-232: ICD110A–ICD111A: 460.8 kbps;
   RS-422/RS-485: ICD112A–ICD113A: 921.6 kbps
CE Approval — Yes
Connectors — All: (1) USB Type B F;
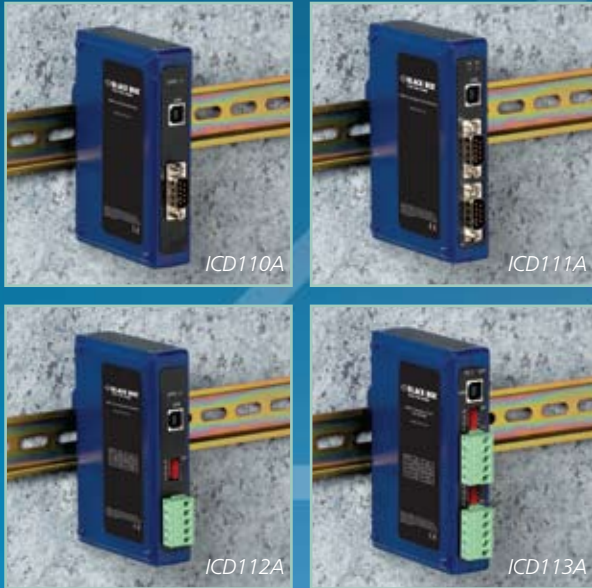   RS-232: ICD110A: (1) DB9 M; ICD111A: (2) DB9 M;
   RS-422/RS-485: ICD112A: (1) pluggable terminal block;
      ICD113A: (2) pluggable terminal blocks
Operating Temperature — 32 to 158°F (0 to 70°C)
Power — From the USB interface
Size — 4.9"H x 1.6"W x 3.3"D (12.4 x 4.1 x 8.4 cm)

ICD110A

ICD111A

ICD112A

ICD113A

What's included

ICD110A–ICD113A:

✦ Converter
✦ 1-m USB cable
✦ User's manual

Item	Code
USB 2.0↔RS-232 DIN Rail Converters	
Single-Port RS-232	**ICD110A**
Dual-Port RS-232	**ICD111A**
USB 2.0↔RS-422/RS-485 DIN Rail Converters	
Single-Port RS-422/RS-485	**ICD112A**
Dual-Port RS-422/RS-485	**ICD113A**
For DB9 male/female connections, order…	
DB9 Extension Cable (with EMI/RFI Hoods), Male/Female, 5-ft. (1.5-m)	**EDN12H-0005-MF**
For RS-422 and RS-485 interfaces, order…	
Category 3 Solid Bulk Cable, 24 AWG, PVC, NEC®, CM, CMR, 2-Pair, Gray, 1000-ft. (304.8 m)	**EYN712A-1000**
You may also need…	
DIN Rail, 1-m (3.2-ft.)	**DR100**
Industrial RS-422/RS-485 DIN Rail Repeater	**ICD107A**
Industrial DIN Rail RS-232/RS-422/RS-485↔ Fiber Driver	**MED101A**
To power six converters or repeaters—or four fiber drivers, order…	
DIN Rail 12-VDC Power Supply	**PSD100**

Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.
- It's 9 p.m. and you need help, but your vendor's tech support line is closed.

According to a survey by *Data Communications* magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

Don't waste time and money—call Black Box today.