



Isolated RS-232 to RS-422/485 Converter

Specification Sheet

This rugged panel-mount converter offers 2-kV isolation.



1. Specifications

Approvals — FCC, CE

Bias — 1 K-ohm switchable

Data Rate — 460.8 kbps

Enclosure — IP 30, metal

Industrial Bus — Modbus ASCII/RTU

Isolation — 2 kV

MTBF — 217576 hours

MTBF Calculation Method — MIL 217F parts count reliability

RS-232 — TD, RD, GND

RS-422/485 4W — TDA(-), RDA(-), TDB(+), RDB(+), GND

RS-485 2W — DATA A(-), DATA B(+), GND

Surge Protection — ± 0.5 kV DC ports, ± 1 kV signal ports

Termination — 120-ohm switchable

Connectors — RS-232: DB9 F (DCE);

RS-422/485: (1) 5-position removable terminal block

Indicators — (2) TD/RD green LEDs (Also used to indicate power)

Temperature Tolerance — Operating: -40 to +176° F (-40 to +80° C); Storage: -40 to +185° F (-40 to +85° C)

Operating Humidity — 0 to 95%, non-condensing

Power — Input voltage: 10 to 30 VDC;

Consumption: 1.0 watt maximum;

External power supply: 24 VDC, 7.5 W;

Power connector: (1) 2-position terminal block

Size — 3.9"H x 2.9"W x 0.9"D x (9.9 x 7.4 x 2.3 cm)

Weight — 0.33 lb. (0.15 kg)

For more information, turn this page over...

**Customer
Support
Information**

Order toll-free in the U.S.: Call 877-877-BBOX (outside U.S. call 724-746-5500)
FREE technical support 24 hours a day, 7 days a week: Call 724-746-5500 or fax 724-746-0746
Mailing address: Black Box Corporation, 1000 Park Drive, Lawrence, PA 15055-1018
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2. Description

The Isolated RS-232 to RS-422/485 Converter is compact and tough. It's designed and tested to meet heavy industrial EMC standards. The RS-232 signal is connected through a female DB9 connector. The RS-422/485 (2-wire and 4-wire) signal is connected through a removable 5-position terminal block, making wiring easy. Power is connected through a two-position removable terminal block. Our bit-wise-enabled circuitry automatically detects the character time-out, eliminating the need to set DIP switches for the baud rate.

The ICD400A offers 2-kV Isolation and will stand up to -40 to +176° F (-40 to +80° C) temperature variations. It protects your expensive control equipment.

Table 1. Approvals/certifications.

Emissions	FCC Class B, CISPR Class B (EN55022)		
CE	EN61000-6-2:2005	(Heavy Industrial)	
	EN61000-4-2:2008	(ESD)	8-kV contact, 15-kV air
	EN61000-4-3:2006	(RI)	10 V/m
	EN61000-4-4:2004	(EFT Burst)	1-kV signal, 2-kV power
	EN61000-4-5:2005	(Surge)	1-kV signal, 500V DC, 1-kV AC
	EN61000-4-6:2005	(CI)	10 Vrms

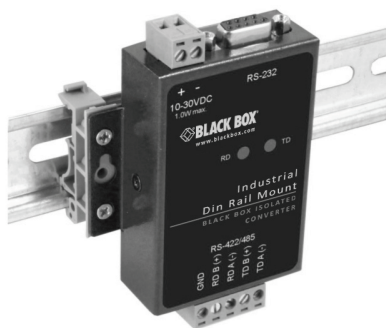


Figure 1. ICD400A mounted on a DIN rail.



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ICD400A specification sheet, version 1

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