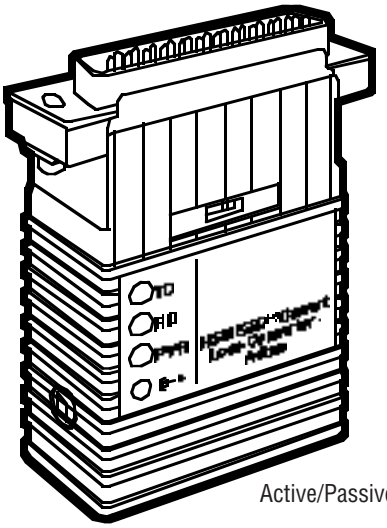
High-Speed RS-232↔Current Loop Interface Converter



Active/Passive

Passive

Connect RS-232 devices with current-loop devices.

Key Features

- *Works with 20-mA current-loop devices.*
- *Optically isolated and surge-protected.*
- *Twisted-pair connection via terminal blocks, RJ-11, or RJ-45.*
- *DB25 male or female connectors on the RS-232 side.*
- *Full-duplex, asynchronous transmission over 4 wires.*
- *Data rates up to 115.2 Kbps.*
- *External DCE/DTE switch, so you don't need a crossover cable.*

The High-Speed RS-232↔Current Loop Interface Converter allows an async RS-232 device to communicate with a 20-mA current-loop device. Typical current-loop devices include industrial equipment such as controllers, lathes, and data-acquisition units.

The Active models let an asynchronous RS-232 device communicate with a passive 20-mA current-loop device. The Active model can also be configured as a Passive device. The Passive models let an asynchronous RS-232 device communicate with an active 20-mA current-loop device.

All models operate in full-duplex mode, and support speeds up to 115.2 Kbps.

The Converter can support communication distances up to 6.4 km over two unconditioned 24 AWG twisted pairs. And it connects directly to the RS-232 interface using a male or female DB25 connector.

On the current-loop device side, you can choose from terminal block, RJ-11, or RJ-45 connectors.

The High Speed RS-232↔Current Loop Interface Converter is great for heavy industrial environments because it's immune to noise, and it's opto-isolated. Active models have isolation of 1500 V RMS (on one line), and passive models have isolation of 2500 V RMS.

The Converter is easy to configure and install. For the Active models, you only need to set two switches and you're ready to go. For the Passive models, you only need to set one switch.

Typical Application

Connect an industrial controller in the factory to your PC with the Converter.

Technically Speaking

The Active Converters have two switches (one external, one internal), while the Passive Converters have a single external switch.

- The Active Converters can be configured as either active or passive via an internal DIP switch. In the active configuration, the Converter provides current for the loop. In the passive configuration, the Converter is in a loop with an active device.
- Both Active and Passive Converters can be configured as either DCE or DTE via an external switch, so no crossover cable is required.
- If the RS-232 device connected to the Converter is a PC, terminal, or host computer (or is wired like a DTE), set the switch to "DCE." This setting causes the Converter to act like a DCE, transmitting data on RS-232 pin 3 and receiving data on pin 2.
- If the RS-232 device connected to the Converter is a modem or multiplexor (or is wired like one), set the switch to "DTE." This setting causes the Converter to act like a DTE, transmitting data on pin 2 and receiving data on pin 3.

Specifications

Speed —
Active: Up to 115.2 Kbps;
Passive: Up to 115.2 Kbps

Protocol — Asynchronous

Interface — RS-232/V.24, 20-mA current loop

Connectors — RS-232: (1) DB25, male or female; Current loop: Terminal block with strain relief, RJ-11, RJ-45

Operation — Full-duplex

Range — 4 miles (6.4 km) on 24-AWG twisted pair

Transmission Line — 19- to 26-AWG twisted pair

Isolation — Active: 1500 V RMS via opto-isolators; Passive: 2500 V RMS via opto-isolators

Operating Temperature — 0 to 60 °C

Humidity — 0 to 95%, noncondensing

Altitude — Up to 4570 m

Indicators — Active: (3) LEDs: TD, RD, Power

Power — Active: 230-VAC, 50-Hz external wallmount transformer; Passive: From interface (RS-232)

Size — Active: H5.3 x W1.9 x D6.8 cm; Passive: H3 x W1.9 x D6.4 cm)

Weight — 42.5 g

Additional equipment you may need:

- Category 3 Cable
- Category 5 Cable

For these and other components...
Call our expert Technical Support Staff for all your interface converter needs. They'll help you find the best equipment for your application.

Ordering Information

This information will help you place your order quickly.

PRODUCT NAME	ORDER CODE
High Speed RS-232↔Current Loop Converter	
Active/Passive	
DB25M/Terminal Block	CL090AE-M
DB25F/Terminal Block	CL090AE-F
DB25M/RJ-11	CL091AE-M
DB25F/RJ-11	CL091AE-F
DB25M/RJ-45	CL092AE-M
DB25F/RJ-45	CL092AE-F
Passive	
DB25M/Terminal Block	CL095A-M
DB25F/Terminal Block	CL095A-F
DB25M/RJ-11	CL096A-M
DB25F/RJ-11	CL096A-F
DB25M/RJ-45	CL097A-M
DB25F/RJ-45	CL097A-F
Category 3 Solid Bulk Cable, 2-Pair, PVC	EYN712A
Category 5 Solid Conductor Cable, 10-ft. (3.0-m), Straight-Pinned	EYN737MS-0010