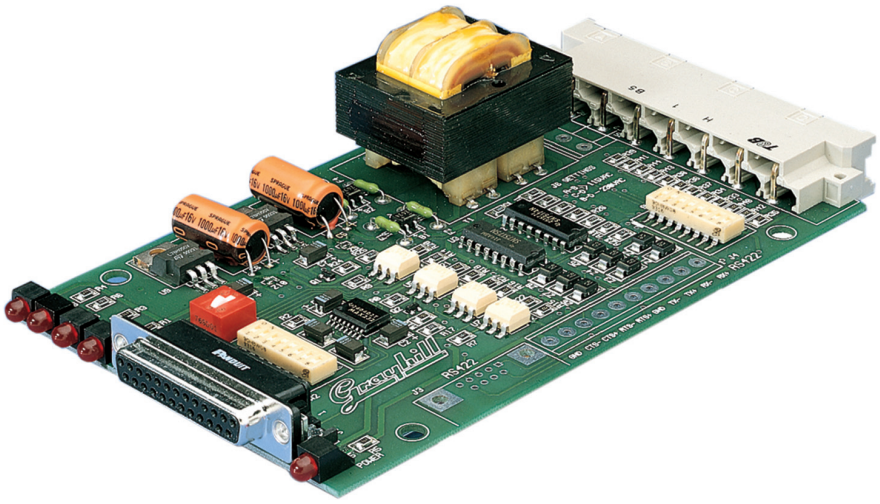
COMMUNICATION CONVERTERS RS-232 to RS-422/485



FEATURES

- Selectable RTS operation for 2 wire applications
- Transient Protection on the RS-422/485 Lines
- On-Board Power Supply With Jumper Selectable 110/220 Vac Operation
- Optical Isolation Between RS-232 and RS422/485
- DIP Switch Selectable DTE/DCE Setting
- Multiple Mounting and Connector Options

GENERAL DESCRIPTION

The 72-CNV-XX family of converters offer a flexible and reliable solution to the challenge of interfacing devices conforming to different serial communication standards. Grayhill converter products are designed for industrial environments. All communication lines have transient protection which other commercially available converters lack. The converters allow an RS-232 device (ie. PCs, PLCs, Embedded Controllers) to communicate reliably over long distances to multiple devices utilizing the RS-422/485 standard. Reliability is an inherent benefit of the differential mode communication of RS-422/485. Noise introduced onto the RS-422/485 link affects both the positive and negative side equally, preserving the integrity of the differential signal between them. Long distances and multiple slave devices are supported by the converters. In half-duplex (2-wire) RS-485 mode, handshaking can be controlled from either end of the communication link. Typical applications involve connecting a host computer to remotely located serial devices such as printers, control equipment, or data acquisition devices distributed throughout an office or factory.

The multiple mounting and connector options allow for many installation possibilities. All three versions conform to a Eurocard 3U size (160 mm x 100 mm). 72-CNV-10 will mount in a DIN 41494 card cage. AC power and the RS-422 signals are brought out to a DIN standard 41612 15-pin connector (Harting p/n 09061152911 or equivalent). 72-CNV-11 has standoffs to facilitate panel mounting. AC power comes in to a screw-type terminal strip. RS-422 signals are on a separate terminal strip or a female DB-9 connector. 72-CNV-12 has a DIN rail card carrier which permits the assembly to snap on a DIN rail. AC power and RS-422 signals are brought in to two screw-type terminal strips. A female DB-25 connector transfers the RS-232 signals for all three versions.

SPECIFICATIONS

Supply Voltage Range (V_{ps}): 110/220 Vac (jumper selectable)
Maximum Supply Current (I_{ps}): 120 mA
Isolation Voltage: 4000 Vac
Transmission Rate: 300 to 115,200 Baud
Operating Temperature Range: 0 to 60°C
95% relative humidity, non-condensing
Indicators: TX, RX, CTS, RTS and Power

ORDERING INFORMATION

Part Number	Description
72-CNV-10	RS-232 to RS-422/485 converter for DIN card cage *(Pictured)*
72-CNV-11	RS-232 to RS-422 converter for panel mount
72-CNV-12	RS-232 to RS-422/485 converter for DIN rail mounting

72-CNV-2, 72-CNV-4 AND 72-CNV-5



72-CNV-4 and 72-CNV-5 convert serial communications from RS-232 to RS-485 in both directions. The converter simply plugs into any male RS-232 DB-25 connector and converts the transmit and receive signals to RS-485 (RS-422) levels at speeds to 115.2 KB. The converters are configured for DTE (default) or DCE operation.

The 72-CNV-2 is similar to the 72-CNV-4 except that it provides optical isolation and operates only in an RS-422 mode at a maximum rate of 19.2 KB.

Supply Voltage:
+8 to +15 Vdc (-2 and -4 versions)
+5Vdc (-5 version)
Supply Current:
62 mA plus output load (-2 version)
30 mA plus output load (-4 and -5 version)
Operating Temperature Range: 0-60°C

ORDERING INFORMATION

Part Number	Description
72-CNV-2	RS-232 to RS-422 converter with optical isolation
72-CNV-4	RS-232 to RS-422/485 converter with 8 to 15V operation
72-CNV-5	RS-232 to RS-422/485 converter with 5V operation

Available from your local Grayhill Distributor. For prices and discounts, contact a local Sales Office, an authorized Distributor, or Grayhill.