MILLTRONICS

CVCC CURRENT VOLTAGE COMMUNICATION CONVERTER

Instruction Manual

September 2001

Safety Guidelines

Warning notices must be observed to ensure personal safety as well as that of others, and to protect the product and the connected equipment. These warning notices are accompanied by a clarification of the level of caution to be observed.

Qualified Personnel

This device/system may only be set up and operated in conjunction with this manual. Qualified personnel are only authorized to install and operate this equipment in accordance with established safety practices and standards.

Warning: This product can only function properly and safely if it is correctly transported, stored, installed, set up, operated, and maintained.

Note: Always use product in accordance with specifications.

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	Technical data subject to change.

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Power

- 115/230 Vac, 50 VA, 50/60 Hz std.
- 100/200 Vac, 50 VA, 50-60 Hz special

Fuse

• 1 A, MDL slo-blo or equivalent

Communication

- 20 mA bipolar current loop, bidirectional
 - cable: Belden 9552, two pair shielded twisted, 18 ga.
- RS-232C, bidirectional
 - cable: Belden 9552, two pair shielded/twisted, 18 ga.
 - cable length: 15 m (50 ft) maximum
- RS-422, bidirectional
 - cable: Belden 9553, three pair shielded/twisted 18 ga.
 - cable length: 15 m (50 ft) maximum

Operating Temperature

• -20 to 60°C (-5 to 140°F)

Weight

• 2.7 Kg (5 lb)

Enclosure

- general purpose
- 203 mm (8") W x 254 mm (10") D x 84 mm (3.3") H

The CVCC (Current to Voltage Communication Converter) is a passive communication link used to interface Milltronics equipment using proprietary 20 mA bipolar communication format with RS-232C or RS-422 communication of a customer's computer.

Transmissions that enter the CVCC will cause the front panel LED's to flash, providing a visual indication that communication through the CVCC is being achieved. The messages are passed through without interpretation or modification of the message. The CVCC simply converts the signal level from RS-232C/RS-422 to 20 mA current loop or vice versa.

Installation

- 1. Take off the top cover by removing the four upper screws.
- 2. Connect data link from the Milltronics equipment. Refer to Interconnection.
- 3. Connect data link from the customer's computer. Refer to Interconnection.
- 4. Check power input jumpers for standard 115/230 Vac or special 100/200 Vac operation. Refer to Interconnection or board silkscreen.
- 5. Connect power. Refer to Interconnection or board silkscreen.
- 6. Flip power switch to ON.
- 7. Replace cover and secure.

CVCC Outline



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Board Layout



RS-232 Communication Format



Notes:

- 1. All wiring must be done in conjunction with approved conduit, boxes and fittings and to procedures in accordance with all governing regulations.
- 2. All wiring to be done by customer (----). Check that jumpers 1TB-12/15 and 14/18 are in place.
- For CVCC 115 Vac operation, wire jumpers across TB1 terminals 19 to 20 and 21 to 22. For 230 Vac operation, wire a jumper across TB1 terminals 20 and 21 only. Refer to board silkscreen.
- 4. Refer to the associated product manuals for details on terminal connections. Connect shield at only one end.

RS-422 Communication Format



Notes:

- 1. All wiring must be done in conjunction with approved conduit, boxes and fittings and to procedures in accordance with all governing regulations.
- 2. All wiring to be done by customer (----). Check that jumper 1TB-7/17 is in place.
- For CVCC 115 Vac operation, wire jumpers across TB1 terminals 19 to 20 and 21 to 22. For 230 Vac operation, wire a jumper across TB1 terminals 20 to 21 only. Refer to board silkscreen.
- 4. Refer to associated product manuals for details on terminal connections. Connect shield at only one end.

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