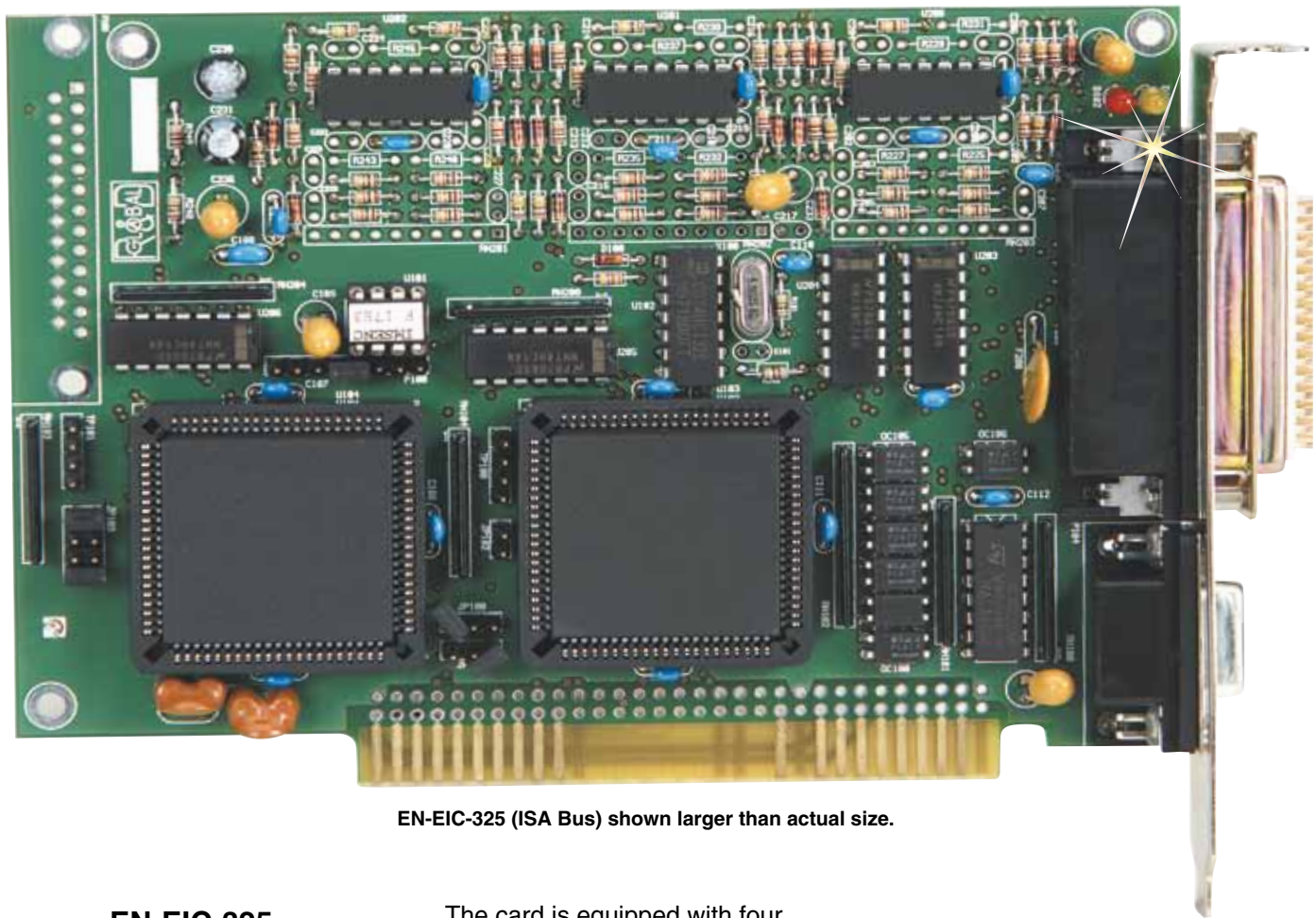
Four Axis Encoder Interface Card for the ISA Bus



EN-EIC-325 (ISA Bus) shown larger than actual size.

EN-EIC-325

1 YEAR WARRANTY CE

- **Four 24-Bit Up/Down Latch Counters**
- **Each Counter has a Programmable Setpoint Value**
- **Provides the Excitation to the Encoders**

The Model EN-EIC-325 Four Axis Encoder Interface Card for the ISA BUS accommodates most of the popular optical encoders available. The board supports either square-wave or sinusoidal output encoders, both linear and rotary types. It can be directly connected to up to four encoders and will also provide necessary excitation to the encoders.

The card is equipped with four differential inputs for limit or home switches/marker/encoder index and 11 single-ended inputs for general use. Also, there are four opto-isolated outputs that may be used for set-points, carry/overflow or index/marker and three opto-isolated outputs for general use. The card has four 24-bit up/down latch counters. Each counter can be programmed for a preset value. There is an internal status register for rapid storing and clearing of signals.

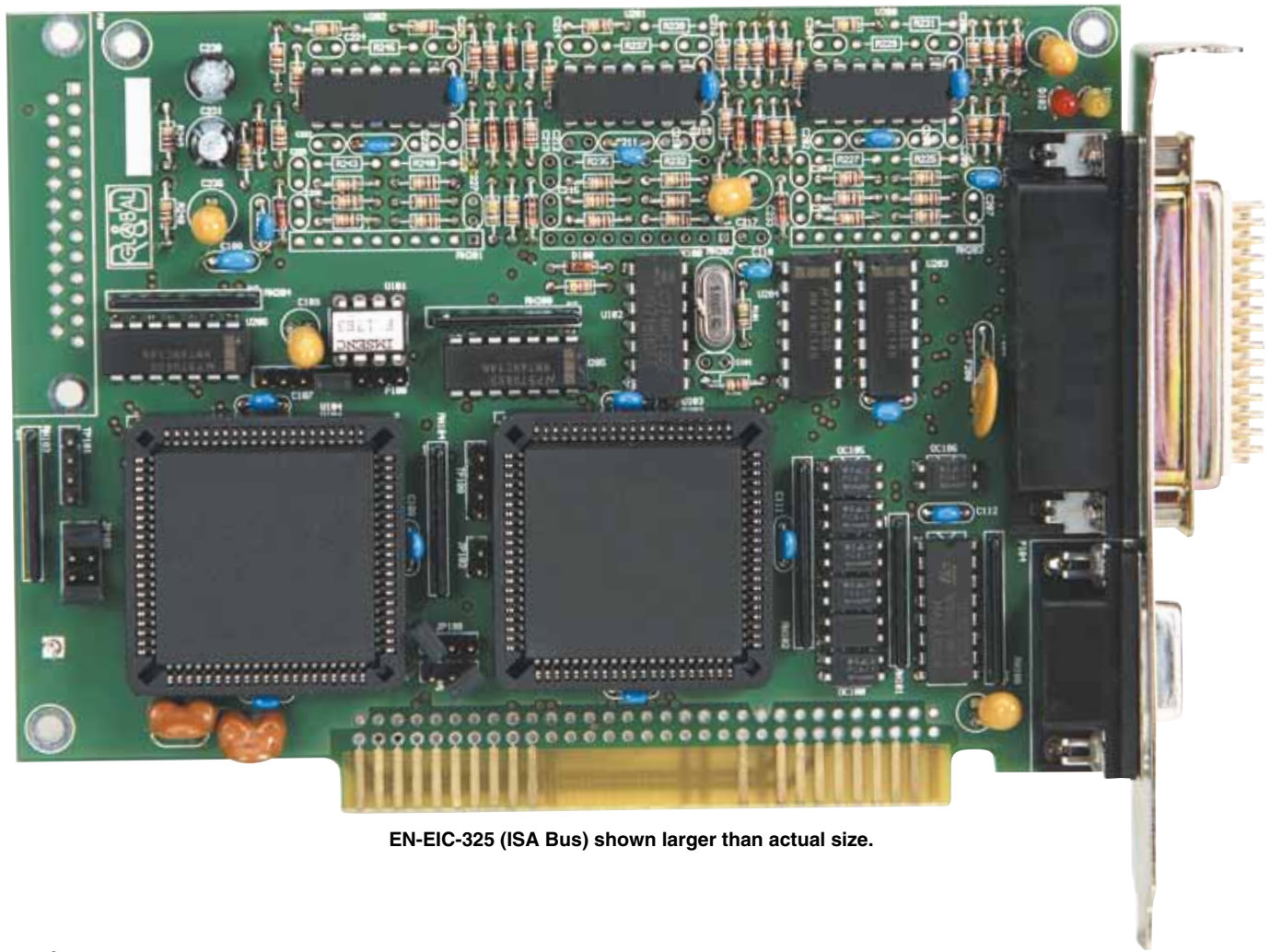
Specifications

Number of Encoders: 4 per board
Multiple Encoder Pulses: 1, 2 or 4 (software selectable)
Encoder Outputs: Sinusoidal or square-wave types
Counter Size: 24-bit up/down with latched buffer
Method of Communication with PC Bus: I/O port addressing, 16 jumper selectable address ranges
Encoder Inputs: 4 Wave Signal Inputs (one per channel)
- single ended or differential for square wave
- differential for sinusoidal wave

4 Wave Index (Marker) Inputs (one per channel)
- single ended or differential

11 general purpose inputs TTL/CMOS compatible Schmidt trigger single-ended
Encoder Outputs: 4 event signal outputs
- can be set to respond to following events - setpoint, overflow and index/marker
- 1 opto-isolated output per channel

3 general purpose opto-isolated outputs
Power (All supplied from ISA bus): +5 V, 200 mA max; +12 V, 100 mA max; -12 V, 50 mA max
Encoder Connectors: Mini D-Sub 44 pin (mating connector supplied)
Output Connectors: D-Sub 9 pin
Operating Ambient: 0 to 50°C (32 to 122°F), up to 80% RH non-condensing



EN-EIC-325 (ISA Bus) shown larger than actual size.

Dimensions:
153 L x 107 mm W (6.0 x 4.2")
Weight: 150 g (5.3 oz)

ENCODER SIGNALS SQUARE-WAVE SIGNAL

Signals: Square wave A phase and B phase shifted by 90°, single-ended or differential
Compatibility:
HTL 0.5-5V or TTL compatible
Rate: 500 Kpps max

SINUSOIDAL SIGNALS

Signals: Two incremental sinusoidal signals (phase A and B shifted by 90°) differential
Signal Range (Encoder Output)
Impedance: <1 KΩ: current output encoders, >± 100 µA; voltage output encoders, >± 100 mV for phases A, B and for the reference marker/index pulse

Encoder Excitation: 5 Vdc
Light Source Current: 900 mA total max, protected by a polyswitch resettable fuse
Rate: 500 Kpps max

ENCODER COUNTER:

Counter: 24-bit up/down counter +24 bit latched buffer per counter
Setpoint: Independently programmable setpoint for each counter
Buffers: User may freeze the buffers without stopping the counters from counting

Operation: Independent operation mode for each axis
Encoder Pulses: Single/multiple encoder pulses (1, 2 or 4 - software selectable)
Counter Reset: Counter may be reset when index is reached (software selectable)
Output/Interrupt Options for each Encoder (Independently Selectable): Set-point reached, counter carry flag, index/marker

To Order

Model No.	Description
EN-EIC-325	Four axis encoder interface card for the ISA bus
EN-EIC-325-CONN	Extra mating connector for encoder input port

*Each card is supplied with one mating connector for the 44 pin encoder input port. For an extra mating connector for the encoder input port, order part number **EN-EIC-325-CONN.***

Each card also includes example software and source code illustrating how to communicate with the card under DOS as well as Windows drivers (EN-EIC-325 supports Windows 98) with complete Visual Basic examples.