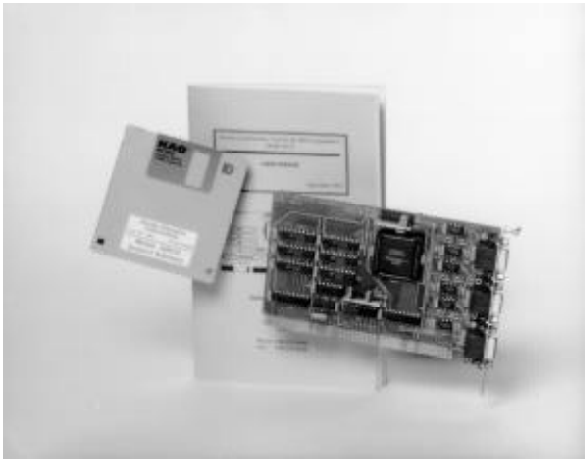
MODEL ASC/3 ABSOLUTE SERIAL INTERFACE CARD (OPTIONAL)

The ASC/3 greatly simplifies communications between your computer and A25S, so you can use an absolute encoder for a wide variety of motion measurement or control applications. It provides all the necessary signals to interrogate and read in the data from up to 3 encoders simultaneously.

The ASC/3 and A25S transmit and receive data serially by RS-422 line drivers and receivers. The A25S requires an active low interrogate pulse to initiate a rotary-to-digital conversion. The ASC/3 generates this signal, and sends it on a separate line simultaneously to each of the three encoders. When each encoder has converted rotary position into digital data, the ASC/3 starts reading and shifting the serial data into its on-board shift registers. The shift/read clock is generated for all three channels in unison. You can control the data transmission rate to the ASC/3 with convenient on-board jumpers. Parameters such the quality and length of the transmission line and application timing requirements will affect the maximum baud rate allowable. The baud rate can be from 28 kHz to 3.6 MHz, which correspond to maximum data update rates from 1,000 to 100,000 encoder reads per second. You can also configure the data size (from 14 to 17 bits) and parity (even or odd) by jumpers. When you are using more than one encoder, the data size and parity must be the same for all.

The ASC/3 checks the parity of the incoming data and reports any errors to the status register, which also has a "busy signal" bit that you can poll. Alternatively, you can assign an IRQ line and ignore the status register, if desired. A simple I/O read from the computer will input the data from the ASC/3 to your CPU.

Each ASC/3 interface board comes with a comprehensive User's Manual and a 3.5" diskette containing test and utility software and example programs for both DOS and Windows®.



MODEL ASC/3 ABSOLUTE SERIAL INTERFACE CARD

General

Hardware compatibility	IBM® AT-compatible (or higher) computer with an available 16-bit ISA bus expansion card slot.
I/O base address	200-3F0 (hex); occupies 16 contiguous hex addresses (user selectable).
Interrupt request level	IRQ 5, 7, 9, 10, 11, 15, NONE (user selectable).
Data size	14, 15, 16 and 17 bits (user selectable).
Parity	Even or odd (user selectable).
Axes Supported	One, two or three axes.
Connector Interface	3 female, 15-pin, high density D-subminiature connectors (DE-15S).
Serial input from encoder	EIA/RS-422 differential line receivers. Encoder data MSB first, parity last.
Serial output	EIA/RS-422 differential line drivers, interrogate pulse and clock signal.
Maximum data clock rate	3.6 Mhz.
Minimum data clock rate	28 kHz.
Maximum data update rate	100,000 reads per second.
Mating encoder	Model A25S absolute rotary encoder with serial output.

Electrical

Typ. power requirements	+ 5 Vdc, 500mA max (w/ oencoders).

Environmental

Operating temperature	0°C to 70°C (32°F to 158°F).
Operating humidity	0% to 90% (non-condensing).
Storage temperature	-20°C to 70°C (-4°F to 158°F).
Storage humidity	0% to 95% (non-condensing).

Physical

Size	Standard ¾ length IBM® PC Card.