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Find the *Acces 104-IDO-8* at our website: ***Click HERE***

104-IDIO-16

32-Channel PC/104
Optically Isolated I/O Module

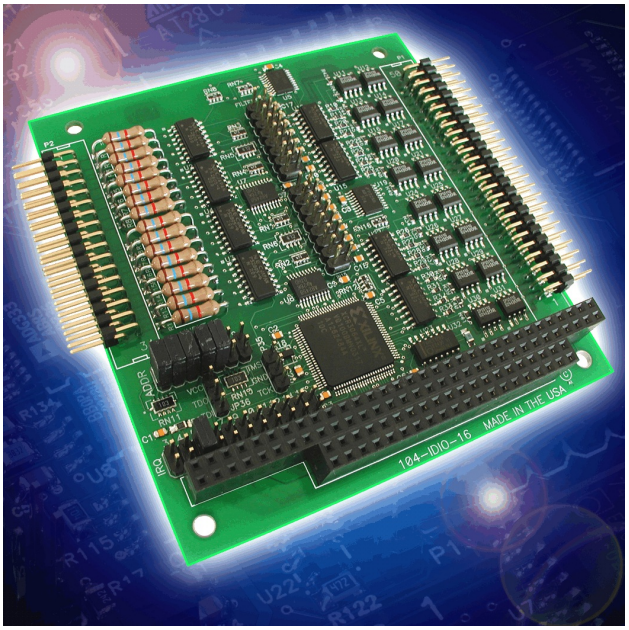
FEATURES

Inputs:

- 16 or 8 Optically Isolated Inputs
- Non-Polarized Digital Inputs
- Change of State Detection
- AC or DC Signals
- 3 to 31 Volt Input Range
- Switchable Slow/Fast Filter

Outputs:

- 16 Optically Isolated Solid State Outputs
- Fully Protected
- 5 to 35 VDC Range
- 2 Amp Current Rating



DESCRIPTION

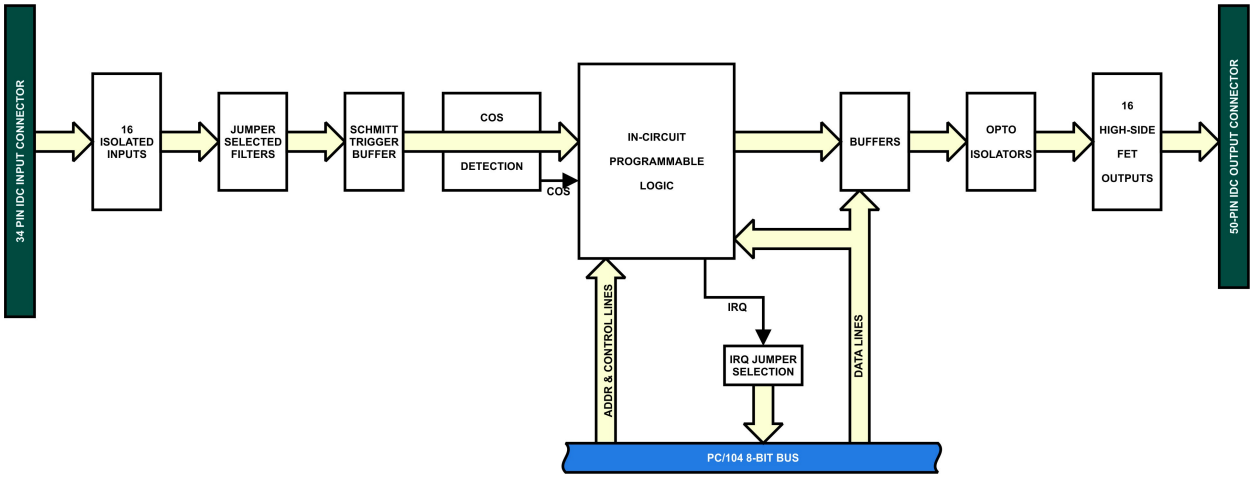
The Model 104-IDIO-16 is a 32-channel PC/104 utility board featuring 16 optically isolated inputs and 16 optically isolated solid state outputs. The isolated, non polarized inputs may be driven by either DC sources of 3-31V (or higher by special order) or AC sources at frequencies of 40Hz to 10KHz. Optically isolating the digital inputs from each other, and from the computer, assures smooth, error-free data transmission in noisy, real-world environments. The 16 input channels are available via a 34-pin IDC type header. The fully protected solid state outputs, capable of driving 2A each, are inherently more reliable than electromechanical relays and give system architects a more robust product to design with. The solid state outputs are available via a 50 pin IDC type header.

Each input circuit includes a jumper selectable slow/fast filter to accommodate AC inputs and is also useful for slow DC inputs in noisy environments. The filter may be manually disabled to increase the boards typical response time to 10 usec when used with faster DC inputs. The input impedance is 1.8K Ohms to accommodate a wide input range.

The board is installed by jumper selecting base addresses and IRQ. System interrupts are software controlled, enabling the board to generate an interrupt whenever one or more of the isolated digital inputs changes state. This eliminates the need for constant polling and *greatly* frees up system resources. Model 104-IDIO-16E is an economy version available without the interrupt Change of State Detection feature.

The 104-IDIO-16 is designed for use in both commercial and optionally in industrial environments of 0 to +70C and -40 to +85C, respectively.

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BLOCK DIAGRAM

TECHNICAL SPECIFICATION

ISOLATED DIGITAL INPUTS

Number of inputs:	Sixteen
Type:	Non-polarized, optically isolated from each other and from the computer. (CMOS compatible)
Voltage Range:	3 to 31 DC or AC (40 to 10000 Hz)
Isolation:	500V*(see manual) channel-to-ground or channel-to channel
Input Resistance:	1.8K ohms in series with opto coupler
Response Time:	4.7 mSec w/filter, 10 uSec w/o filter (typical)
Interrupts:	Software controlled with jumper IRQ selection (model 104-IDIO-16 only)

ISOLATED FET OUTPUTS

Number of outputs:	Sixteen Solid State FET's (off @ power up).
Output Type:	High Side Power MOS FET Switch. Protected against short circuit, over-temperature, ESD, can drive inductive loads.
Voltage Range:	5-35VDC recommended (customer supplied) for continuous use, 50VDC absolute max.
Current Rating:	2A maximum.
Turn-on time:	Rise time: 50usec. Turn-on delay: 50usec.
Turn-off time:	Fall time: 50usec. Turn-off delay: 50usec.

INTERRUPTS: Interrupts are generated when isolated inputs change state if enabled by software. (model 104-IDIO-16 only)

POWER REQUIRED: +5VDC @ 0.150A (all FET's ON)

ENVIRONMENTAL

Operating Temp:	0° to +70°C (optional extended operating temp -40 to +85°C)
Storage Temp:	-40 to +85°C

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