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

104-IIRO-8 & 104-IIRO-8E

24-Channel PC/104 Isolated Input/Relay Output with COS



KEY FEATURES:

- 8 optically-isolated, non-polarized CMOS compatible digital inputs accept ±31VDC or AC rms
- IRQ on input change of state (COS) eliminates the need for constant polling
- Slow/fast filter to accommodate AC voltages and noisy DC inputs
- 8 Form C electro-mechanical relays switch up to 1A each
- 8 non-isolated TTL compatible inputs

FACTORY OPTIONS:

- Economy version without COS feature (104-IIRO-8E)
- Expanded input voltage levels

The 104-IIRO-8 is a low cost 24-channel PC/104 utility board featuring eight optically isolated digital inputs with Change of State (COS) detection, eight TTL inputs and eight electromechanical Form C SPDT relay 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.

Eight buffered general-purpose TTL inputs, useful for reading dry contact closures or any TTL-compatible outputs, are also provided. The eight electromechanical relays are de-energized at system power-up to prevent an unintended control output signal. Data to the relays are latched. The 24-channels are available via one 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 board's typical response time to 10 µsec when used with faster DC inputs. All input signals are rectified by diodes before input to the opto-isolators. Current limiting is provided by a 1.8K Ohm, 1/2-Watt resistor in series and accommodates a wide input range.

The board is installed by jumper selecting the base address 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. Once an interrupt has been generated and serviced, the board's inputs are read to determine their status, then the interrupt is cleared by system software. This eliminates the need for constant polling and greatly frees up system resources. Model 104-IIRO-8E is an economy version available without the interrupt Change of State Detection feature.

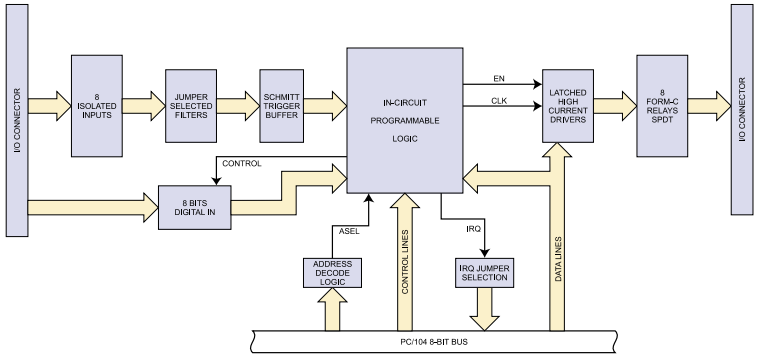
SOFTWARE

The 104-IIRO-8 is supported for use in most operating systems and includes a free DOS, Linux and Windows 95/98/Me/NT/2000/XP/2003 compatible software package. This includes sample programs and source code in "C" and Pascal for DOS, and Visual Basic, Delphi, C++ Builder, and Visual C++ for Windows. Also included is a graphical setup program in Windows. Embedded OS support includes Windows XPe and CE. Linux support includes installation files and basic samples for programming from any user level via an open source kernel driver.

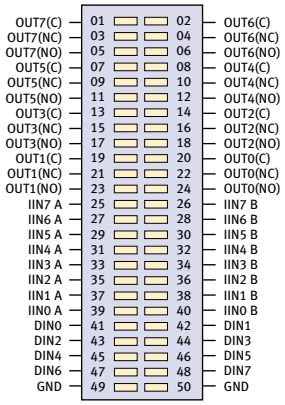
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24-Channel
PC/104 Isolated Input/Relay Output with COS

Block Diagram & Pin Configuration



I/O Header



Specifications

Opto-Isolated Inputs

Inputs	8 non-polarized opto-isolated with change of state (COS) detection
Input voltage	3V to 31V DC or AC rms (40 to 10KHz)
Input impedance	1.8K Ohm
AC input filter	Independently selectable on a per-channel basis
Response time	10µs without filter, 4.7ms with filter
Isolation	Opto-Isolators specified to 500V

Digital Inputs

Inputs	8 TTL compatible, pulled up to +5VDC

Electromechanical Relay Outputs

Outputs	8
Relay type	SPDT (Form C)
Contact rating	1A max at 24VDC, 60VDC max, 0.5A at 125AC max
Contact type	Single crossbar, Ag with Au clad (Bifurcated contacts optional)
Contact life	5,000,000 operations minimum
Operating time	5ms max
Release time	5ms max

General

I/O connections	I/O is accessed via a 50-pin header
Power required	+5VDC @ 400mA (all relays ON)
Operating temperature	-30 to +70°C (non-icing)

Ordering Guide

104-IIRO-8	24-channel opto-isolated input/relay output with change of state detection
104-IIRO-8E	Economy version without change of state feature

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