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Data Sheet

August 15, 2026

ACROMAG

Acromag IP440A-2 Isolated Digital Input Module

Acromag IP440A-2 Isolated Digital Input Industry Pack Module 32 Channels The Acromag IP440A-2 provides 32 optically isolated digital inputs grouped into four 8-channel ports for the plus or minus 16 to plus or minus 40 V DC or AC peak range. OEM IP440A datasheet rates 250 Vac/dc continuous isolation, programmable debounce, and change-of-state interrupts.

Monitoring industrial discrete sensors and control signals while isolating the host computer from field wiring faults. Input hysteresis and reverse polarity protection The Acromag IP440A-2 provides 32 optically isolated digital inputs grouped into four 8-channel ports for the plus or minus 16 to plus or minus 40 V DC or AC peak range. OEM IP440A datasheet rates 250 Vac/dc continuous isolation, programmable debounce, and change-of-state interrupts. Monitoring industrial discrete sensors and control signals while isolating the host computer from field wiring faults. Input hysteresis and reverse polarity protection Pin-compatible loopback with IP445A outputs



MODEL

Acromag IP440A-2

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

IP440A-2

LISTING

<https://aumictechlabs.com/products/ip440a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Acromag IP440A-2 is a 32-channel isolated digital input module engineered for industrial monitoring applications requiring high noise immunity and signal integrity. Each of the 32 optically isolated input channels safeguards connected systems from transient signals and ground loops.

Four distinct 8-channel ports provide individual isolation from logic circuitry and from each other, enabling reliable discrete signal acquisition in electrically challenging environments.

Technical Specifications

Digital Inputs 32 optically isolated channels Input voltage range: $\pm 16\text{V}$ to $\pm 40\text{V}$ DC or AC peak Input low-to-high threshold: $\pm 6.8\text{V}$ typical Response time: $10\mu\text{s}$ (off to on), $15\mu\text{s}$ (on to off) Selectable debounce: $4\mu\text{s}$, $64\mu\text{s}$, 1ms , or 8ms ($\pm 250\text{nS}$ error margin) Input hysteresis for improved noise immunity Reverse polarity protection Change-of-state interrupts with programmable polarity Isolation & Voltage Withstand Logic and field connections optically isolated Individual port isolation from each other Continuous isolation rating: 250V AC rms and 250V DC Dielectric strength: 1500V AC for one minute Data Transfer & Processing Access time: 250ns per cycle at 8MHz clock Support for IOSel*, IDSel*, and INTSel* cycle types Four 8-bit reads required to update all 32 channels Zero wait states Software configuration allows on-the-fly parameter changes Initial configuration time: up to 200ms after power-up Physical Dimensions: $4 \times 2 \times 1$ inches Weight: 8 oz Field I/O: 50-pin female receptacle header (AMP 173279-3 or equivalent) Logic interface: 50-pin female receptacle header M2 threaded screws and spacers supplied

Environmental Operating temperature: 0°C to 70°C (extended range -40°C to 85°C available) Storage temperature: -55°C to 150°C Relative humidity: 5% to 95% non-condensing

Key Features

Optoelectronic isolation eliminates ground loop coupling Debounce selectivity from $4\mu\text{s}$ to 8ms accommodates various signal types Programmable interrupt generation on state transitions No jumpers or switches required; full software configuration Threaded connector hardware enhances mechanical stability

Typical Applications Industrial control systems, SCADA networks, process monitoring, discrete signal acquisition in noisy environments, safety interlocks, and condition-based maintenance systems.

Compatibility & Integration The module connects to industrial I/O backplanes via standard 50-pin female receptacle headers. Software configuration through IOSel*, IDSel*, and INTSel* cycle types enables integration into custom measurement and control systems without hardware modification.

IP440A Characteristics / Specifications

PARAMETER	VALUE
Model	IP440A-2
Instrument Type	Isolated digital input Industry Pack module
Input Channels	32 optically isolated
Bipolar Input Voltage Range	plus or minus 16 to plus or minus 40 V DC or AC peak
Input Low To High Threshold Typical	plus or minus 6.8 V
Input Response On To Off Typical	15 us
Input Response Off To On Typical	10 us
Continuous Isolation Logic To Field	250 V AC rms / 250 V DC
Dielectric Strength Test	1500 V AC for one minute
Debounce Selectable	4 us 64 us 1 ms or 8 ms
Interrupt Modes	high-to-low low-to-high or change-of-state
Access Time At 8 Mhz	0 wait states 250 ns cycle
Channel Update Reads	four 8-bit reads for all channels
Operating Temperature Standard	0 to 70 C
Operating TemperatureEModel	-40 to 85 C
Storage Temperature	-55 to 150 C
Relative Humidity	5 to 95 percent non-condensing
Power Plus 5 V Maximum	150 mA
Power Plus 5 V Typical	65 mA
Power Plus Minus 12 V	0 mA not used
Ip Standard	ANSI/VITA 4-1995
Port Grouping	four isolated 8-channel ports
Operating temperature	Standard: 0 to 70 C
Humidity	5 to 95 percent non-condensing

IP440A Specifications

PARAMETER	VALUE
Key Features	32 port-isolated optical inputs
Input hysteresis and reverse polarity protection	Pin-compatible loopback with IP445A outputs
Technical Specifications	Model: IP440A-2

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	55 to 150 C
Operating temperature	Standard: 0 to 70 C
Operating Temperature	Standard: 0 to 70 C
Humidity	5 to 95 percent non-condensing
Operating Temperature Standard	0 to 70 C
Operating TemperatureEModel	-40 to 85 C
Relative Humidity	5 to 95 percent non-condensing
Power Plus 5 V Maximum	150 mA
Power Plus 5 V Typical	65 mA
Power Plus Minus 12 V	0 mA not used
Ip Standard	ANSI/VITA 4-1995
Port Grouping	four isolated 8-channel ports Notes From Acromag IP440A Isolated Digital Input Industry Pack datasheet for ordering model IP440A-2. Queue may also list IP440-2 non-A; electrical range matches the -2 voltage group.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.