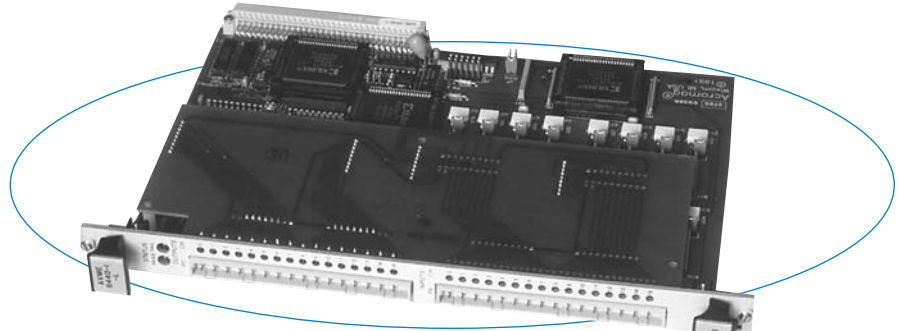


AVME9440-i Isolated Digital I/O (16 inputs and 16 outputs)



These digital I/O boards provide isolation between individual channels and from the VMEbus for maximum protection.

These boards provide an economical method for isolating and interfacing digital I/O signals to the VMEbus. Built-in optical relays eliminate the expense of external relay panels and simplify installations. The outputs can control valves, switch counters, mechanical or optical relays, indicator lamps and more.

On-board relays isolate all inputs and outputs from each other and from the VMEbus for protection against transients from ground loops and pick-up.

Selectable input threshold voltages let the user adapt the input points to a variety of applications including contact closures, alarm trips, switches, and power supply on/off monitoring.

Debounce circuitry offers a selectable time delay to eliminate false signals resulting from contact bounce commonly experienced with mechanical relays and switches.

Features

- 16 input and 16 output channels
- On-board optical relays
- All inputs and outputs are isolated from the VMEbus and from each other
- Interfaces to TTL and CMOS logic
- Optional LEDs indicate channel status
- Adjustable debounce circuitry
- Vectored interrupts for change-of-state, level (polarity), or pattern detection
- User can read back output states
- Outputs sink up to 1 Amp DC, from up to a 55V DC source

Specifications

Digital Inputs

Points per board: 16.
 Input voltage range (jumper-selectable):
 4 to 25V DC or 20 to 55V DC.
 Input threshold:
 4V DC maximum (4 to 25V range),
 20V DC maximum (20 to 55V range).
 Input current:
 18.4mA DC typical @ 25V (4 to 25V range),
 4.7mA DC typical @ 55V (20 to 55V range).
 Input debounce: Jumper-selectable ranges. 7 to 8 μ S,
 336 to 384 μ S, 672 to 768 μ S, 1.344 to 1.536mS.
 Input response time: 1 μ S typical (excludes debounce).
 VMEbus access time: 580nS typical (all registers; measured
 from the falling edge of DSx to the falling edge of DTACK).
 Logic interface: TTL and CMOS logic.

Digital Outputs

Points per board: 16.
 Output type: Solid-state relay, Form A, Single Pole, Single
 Throw, normally open (SPST - NO).
 Output voltage range: 0 to 55V.
 Output voltage @ 1 Amp DC: 0.5V DC maximum.
 Output current range: 0 to 1 Amp DC (0 to 40°C).
 Derate current above 40°C: 10mA/°C.
 Output response @ 1 Amp DC: 2.0mS maximum.
 Logic interface: TTL and CMOS logic.
 Output fuse: F1-16 (2 AMP).

Environmental

Operating temperature: 0 to 70°C (32 to 158°F).
 Isolation: Each channel individually isolated via opto-couplers
 (inputs) or solid-state relays (outputs). Rated 250V AC or
 354V DC continuous from channel to channel and from
 VMEbus. Withstands 1500V AC surge for 60 seconds.

Power:
 +5V DC (\pm 5%): 1.0A typical.
 +12V DC: 0.0mA (not used).
 Connectors:
 P1: 96 pin 603-2-IEC class 2.
 P2: not used.
 P3, P4: Panduit No. 100-532-053; Type B male
 connectors, rows A and B equipped, even
 pins only (32 pins total).

VME Compliance

Meets VME Specifications per revision C.1 dated
 October 1985 and IEC 821-1987
 Data transfer bus: A24/A16:D16/D08 (E0) DTB slave.
 Address modifier codes: 29H, 2DH, 39H, 3DH.
 Memory map: standard or short address space occupying
 1K byte.
 Interrupts: I(1-7) request levels; single or multiple interrupt
 vectors; priority, sense and enabling are under software
 control.

Ordering Information

I/O Boards

AVME9440-i
 16 inputs, 16 outputs (32 channels)

AVME9440-i-L
 Same as AVME9440-i plus LEDs

Software (see Page 81)
905W-API-VXW
 VxWorks® software support package

Accessories

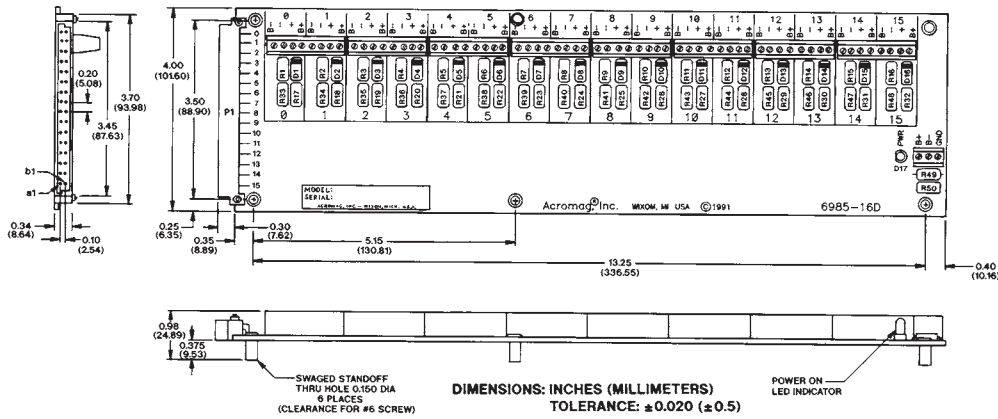
 (see Page 87)

6985-16DI
 Isolated digital I/O panel, 16 output channels

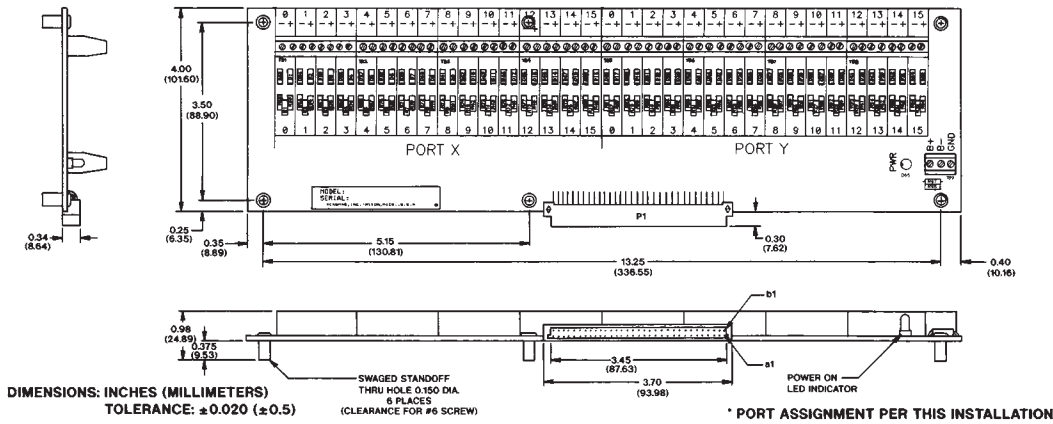
6985-16DI
 Isolated digital I/O panel, 16 output channels

9944-x
 Cable, 64-pin female connectors at both ends.
 Links VME board front connector to 6985-16D panel.
 Specify length, x, in feet (12 feet max).

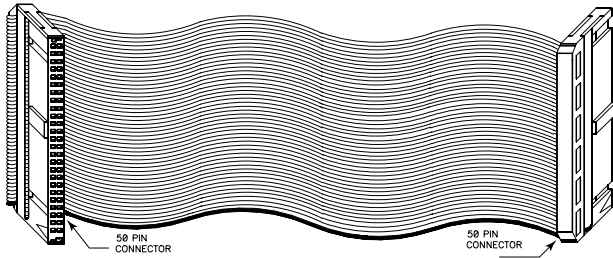
6985-16DI and 6985-16DO Termination Panels



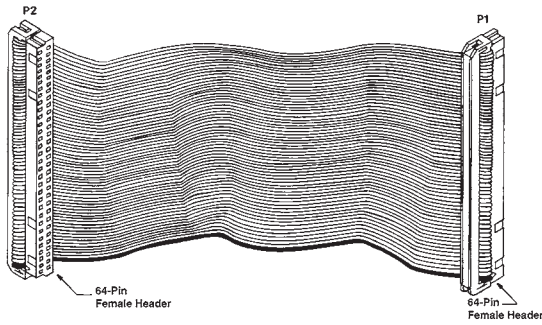
6985-32DI and 6985-32DO Termination Panels



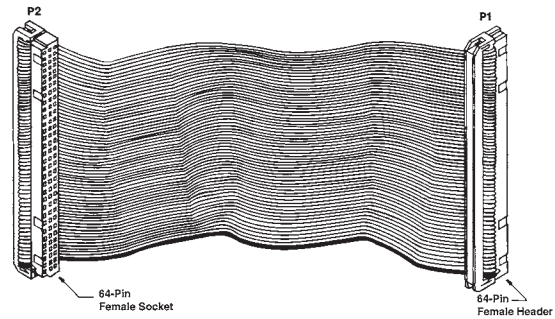
5025-550/551 Cable



9944 Cable



9948 Cable



5028-187 Cable

