

AVME943x-i Isolated Digital Output

- AVME9430-i: 32 solid-state relays (P2 access)
- AVME9431-i: 64 solid-state relays
- AVME9432-i: 96 solid-state relays

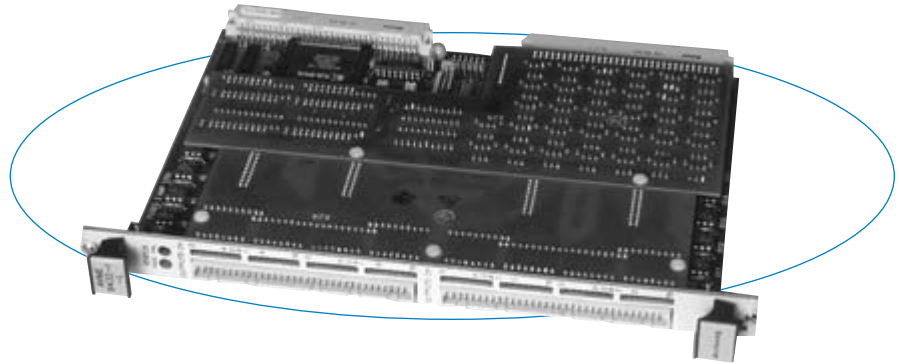
These boards provide an economical method for isolating and interfacing digital output signals from the VMEbus. The outputs are designed to control valves, switch counters, mechanical/optical relays, indicator lamps and more. Individual channels may be connected for either high-side switching or low-side switching.

Built-in solid state relays with very high current ratings eliminate the expense of external relay panels and simplify installations.

Individual channels are optically isolated from each other (channel-to-channel) and from the VMEbus. This safety feature protects computer hardware from noise and transient signals, from ground loops and pick-up, as well as system failures caused by faults in field wiring.

Features

- 32, 64 or 96 outputs with solid state relays
- All outputs are isolated from VMEbus [250V AC (354V DC) continuous]
- Solid state relay outputs carry up to 1A DC, from up to a 55V DC source
- Optional LEDs indicate channel status
- All channels individually connected for SOURCE (externally supplied) or SINK
- User can read back output states
- Interfaces to TTL and CMOS logic
- On-board thermal protection with status bits



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

Specifications

Solid State Relay Outputs

Channels: 32, 64 or 96 depending on model.
 Outputs: Solid-state relay, SPST-NO (Form A).
 Output "off" voltage range: 0 to 55V.
 Output "off" leakage current: 5µA DC maximum.
 Output "on" current range: 0 to 1A DC (0 to 40°C).
 Derate "on" current above 40°C: 10mA/°C.
 Output "on" voltage @ 1A DC: 0.5V DC maximum.
 Output response @ 1 Amp DC: 2.0mS maximum.
 Logic interface: TTL and CMOS logic.
 Output fuse: F1-32, (64) (2 Amp).
 LED "on" indicators for front panel channels:
 64 red LEDs (with -L option only).

Environmental

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

Power:
 +5V DC: 2.5A maximum (all inputs ON with LEDs).
 +12V DC: 0.0mA (not used).

Over-Temperature Monitor

Low limit setpoint: 69°C, typical (156°F).
 High limit setpoint: 79°C, typical (174°F).

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.
 VMEbus access time: 590nS typical (all registers; measured from the falling edge of DSx to the falling edge of DTACK).

Connectors

P1: DIN 41612 96-pin Type C, Level II.
 P2: DIN 41612 64-pin Type C, Level II, rows A and C.
 P3, P4: DIN 41612 64-pin Type B, Level II.
 AVME9430-i: This model has 32 outputs brought out through rows A and C of the P2 connector.
 AVME9431-i: This model has 64 outputs brought out through front panel connectors.
 AVME9432-i: This model has 96 outputs where 64 are brought out through the front panel and 32 are brought out through P2 rows A and C.

Ordering Information

I/O Boards

AVME9430-i: 32 solid-state relays (P2 access)
AVME9431-i: 64 solid-state relays (Front access)
AVME9431-i-L: Same as AVME9431-i plus LEDs
AVME9432-i: 96 solid-state relays (Front & P2 access)
AVME9432-i-L: Same as AVME9432-i plus LEDs

Software (see Page 81)

90SW-API-VXW
 VxWorks® software support package

Accessories (see Page 87)

6985-32D0
 Isolated digital I/O panel, 32 output channels

6985-16D0
 Isolated digital I/O panel, 16 output channels

9944-x
 Cable, 64-pin female connectors at both ends. Links VME board front connector to 6985-32D0 panel. Specify length, x, in feet (12 feet max).

9948-x
 Cable, 64-pin female connectors at both ends. Links VME board P2 connector to 6985-16D0 panel. Specify length, x, in feet (12 feet max).