IP445A Isolated Digital Output

IP445A modules provide 32 isolated solid-state relay outputs to safely control discrete devices. A major IP445A advantage is its flexibility. The module supports wide range bipolar (AC or DC) voltage switching. Each port can be configured for high or low-side switches. The outputs are TTL-compatible when configured as low-side switches using on-board socketed pull-up resistors.

Isolation protects your computer system from noise, transient signals, and field wiring faults. Outputs are grouped into four 8-channel ports. Ports are isolated via solid-state relays from the logic and from each other. Readback buffers simplify output status monitoring. And for easy closed-loop monitoring of critical control signals, use the IP445A with an IP440A input module.

Features
- 32 bipolar solid state relays
- High/low-side switch configuration
- Port-isolated output channels
- ±60V AC/DC voltage range
- High speed processing (0 wait states)
- TTL-compatible
- Failsafe power-up and system reset
- Output readback function
- Socketed pull-up resistors for low-side switching applications
- Current-limited solid-state relays

Benefits
- Unique ground reference points for each port permits AC and DC switching on one module.
- Pin are compatible with IP440A input module for loopback monitoring.

Specifications

Digital Outputs
Output channel configuration: 32 isolated solid-state relays support AC or DC (high/low-side switching) operation. Isolation: Logic and field connections are optically isolated by solid-state relays. Individual ports are also isolated from each other. Output lines of an individual port share a common connection and are not isolated from each other. IP Logic and field lines are isolated from each other for voltages up to 250V AC or 354V DC on a continuous basis (unit will withstand a 1000V AC dielectric strength test for one minute without breakdown).

Voltage range: 0 to ±60V DC or peak AC.

Output ON current range: 140mA maximum continuous (up to 1A total per port).

Turn on time: IP445A 1mS typical, 2mS maximum.

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Output pull-up resistors: 4.7K ohms, socketed.

IP Compliance (ANSI/VITA 4)
Meets IP specifications per ANSI/VITA 4-1995.

Power:
+5V (±5%) all outputs on: 200mA maximum.
±5V (±5%) all outputs off: 8mA maximum.

Ordering Information

Industry Pack Modules
IP445A
Digital output module.

IP445AE
Same as IP445A plus extended temperature range.

Acromag offers a wide selection of Industry Pack Carrier Cards.

Software
See software documentation for details
IPSW-API-VXW
VxWorks® software support package
IPSW-API-QNX
QNX® software support package
IPSW-API-WIN
Windows® DLL driver software support package
IPSW-LINUX
Linux™ support (website download only)

See accessories documentation for additional information.

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