

Description

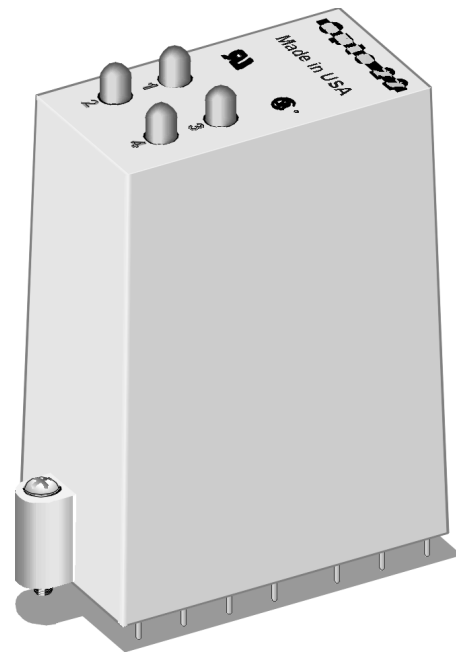
Quad Pak modules contain the equivalent of four single-channel I/O circuits in a single high-density package. Each Quad Pak module can be divided into two pairs with each pair sharing a common connection. The Quad Pak modules are designed to plug into the Quad Pak high-density I/O mounting racks only and cannot be plugged into single-channel racks. Quad Pak modules are designed to work with a 5 VDC logic voltage only and can be used with Optomux, Pamux, and Mistic protocol brain boards and mounting racks, as well as racks using a direct cable connection to a computer.

DC input modules are used for sensing ON/OFF DC voltage levels. All DC input modules, with the exception of the IDC5BQ, are designed with filtering on the input and a hysteresis amplifier for high noise rejection and transient-free "clean" switching. The IDC5BQ module is a fast-switching input module for signals produced by photoelectric switches, encoders, DC proximity switches, or TTL devices. Each module provides up to 4,000 V_{rms} of optical isolation between field inputs and the logic side of the circuit.

Typical uses and applications include sensing the presence or absence of voltage or sensing contact closures from sources such as:

- Proximity switches
- Limit switches
- Selector switches
- Push button and toggle switches
- Photoelectric switches
- TTL-compatible devices

| Part Numbers | Description |
|--------------|--|
| IDC5Q | 4-Channel DC Input 10–32 VDC, 5 VDC Logic |
| IDC5BQ | 4-Channel DC Input 4–16 VDC, 5 VDC Logic, High Speed |
| IAC5Q | 4-Channel DC Input 90–140 VDC, 5 VDC Logic |
| IAC5AQ | 4-Channel DC Input 180–280 VDC, 5 VDC Logic |



Specifications

| GENERAL-Applies To All Models | |
|-------------------------------|-----------------------------------|
| Operating Ambient Temperature | -30° to 70° C |
| Isolation Input-to-Output | 4,000 Vrms |
| Output Voltage Drop | 0.4 volts @ 50 milliamperes |
| Output Current | 50 milliamperes |
| Output Leakage With No Input | 100 microamperes maximum @ 30 VDC |
| Output Transistor | 30 volts breakdown |

| | Units | IDC5Q | IDC5BQ | IAC5Q | IAC5AQ |
|--|-------|-------|--------|--------|---------|
| Input Voltage Range | VDC | 10–32 | 4–16 | 90–140 | 180–280 |
| Input Current @ Maximum Line | mA | 29 | 45 | 11 | 6.5 |
| Turn-on Time | msec | 5 | 0.05 | 20 | 20 |
| Turn-off Time | msec | 5 | 0.01 | 20 | 20 |
| Input Allowed For No Output | mA | 1 | 0.7 | 3 | 1.7 |
| | V | 3 | 1 | 45 | 80 |
| Logic Supply Voltage - Nominal | VDC | 5 | 5 | 5 | 5 |
| Logic Supply Voltage Range | VDC | 4.5–6 | 4.5–6 | 4.5–6 | 4.5–6 |
| Logic Supply Current @ Nominal Logic Voltage | mA | 12 | 12 | 12 | 12 |
| Input Resistance (R ₁ in Schematic Diagram) | Ohms | 1.5K | 300 | 24K | 66K |
| Control Resistance (R ₂ in Schematic Diagram) | Ohms | 220 | 220 | 220 | 220 |

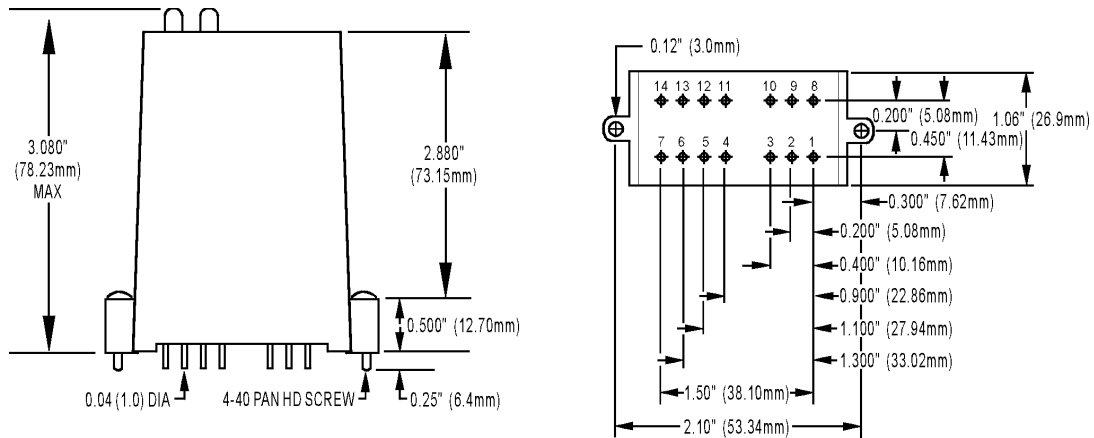
OPTO 22

I/O MODULES QUAD DC INPUT

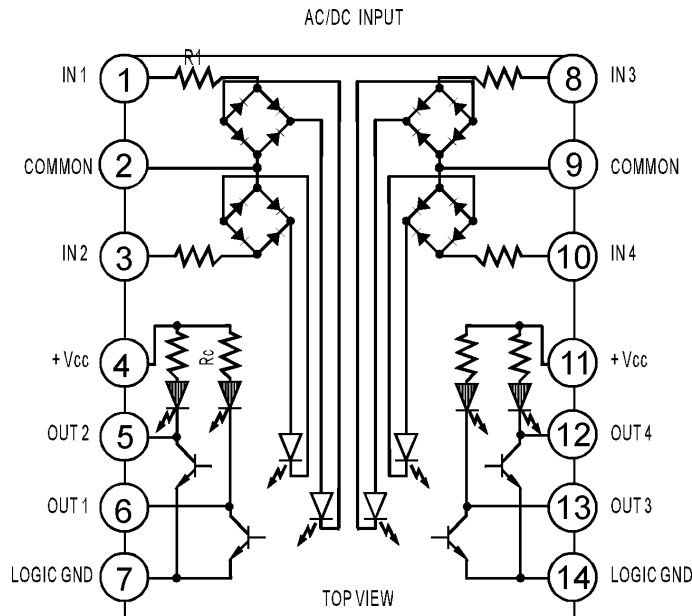
DATA SHEET



Form 487-040927

Dimensions



Schematics



-  RED INDICATOR LED
-  INFRARED COUPLER LED
- EQUIVALENT CIRCUIT ONLY
- NEGATIVE TRUE LOGIC