

P8R8DIO/P16R16DIO

8/16-channel isolated digital input & 8/16-channel relay output board



P8R8DIO



P16R16DIO

Functional Description

The P8R8DIO is an 8-channel isolated digital input and 8 channel relay output interface board designed for control and sensing applications. This board is easily installed in any PC/AT/XT or compatible computer. The P8R8DIO can be used in various applications including load switching, external switching, contact closure and others. The P16R16DIO has one 37-pin D-Sub female and one 40-pin header. It can replace two P8R8DIO.

Applications

- Factory Automation
- Product Test
- Laboratory Automation
- Security Control

Specifications

Relay Output

- Relay output channels: 8(P8R8DIO); 16(P16R16DIO)
- Contact rating: 125VAC@0.5A ; 30VDC@1A
- Output type: channel 0~3 and 8~11: SPDT(Form C)
channel 4~7 and 12~15: SPST(Form A)
- Breakdown voltage: 1KV
- Operating time: 5ms
- Release time: 5ms
- Expected life > 100, 000 times (Electrical at 30V/1A)

Isolated Digital Input

- Number of channels: 8 (P8R8DIO);16(P16R16DIO)
- Type: non-polarized OPTO-Isolated
- Input voltage: AC/DC 5-24V (AC: 50 -1 K Hz)
- Input impedance: 1.2 K Ω
- Response time: 20 μ S (without filter)
2.2 mS (with filter)
- Isolation voltage: 500V Channel-Channel & Channel-Ground

Features

- 8/16-channel electromagnetic relay output
- 8/16-channel optically isolated digital input
- AC/DC signal input
- AC signal input with filter
- On-board LED indication for relay status

General Specifications

- I/O connector:
one 37-pin D-sub female (P8R8DIO)
one 37-pin D-sub female & one of 40-pin header (P16R16DIO)
- Power requirements: (max)

| Device | +5V | +12V |
|-----------|--------|--------|
| P8R8DIO | 120 mA | 180 mA |
| P16R16DIO | 200 mA | 260 mA |

- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 70°C
- Dimensions: 145 mm x 105 mm (P8R8DIO)
175 mm x 121 mm (P16R16DIO)

Pin Assignment

| | | | | |
|-------|----|---|----|-------|
| NO_0 | 1 | ○ | 20 | NO_3 |
| COM_0 | 2 | ○ | 21 | COM_3 |
| NC_0 | 3 | ○ | 22 | NC_3 |
| NO_1 | 4 | ○ | 23 | NO_4 |
| COM_1 | 5 | ○ | 24 | COM_4 |
| NC_1 | 6 | ○ | 25 | NO_5 |
| NO_2 | 7 | ○ | 26 | COM_5 |
| COM_2 | 8 | ○ | 27 | NO_6 |
| NC_2 | 9 | ○ | 28 | COM_6 |
| NO_7 | 10 | ○ | 29 | GND |
| COM_7 | 11 | ○ | 30 | DIL_0 |
| DIH_0 | 12 | ○ | 31 | DIL_1 |
| DIH_1 | 13 | ○ | 32 | DIL_2 |
| DIH_2 | 14 | ○ | 33 | DIL_3 |
| DIH_3 | 15 | ○ | 34 | DIL_4 |
| DIH_4 | 16 | ○ | 35 | DIL_5 |
| DIH_5 | 17 | ○ | 36 | DIL_6 |
| DIH_6 | 18 | ○ | 37 | DIL_7 |
| DIH_7 | 19 | ○ | | |

Ordering Information

Standard

P8R8DIO: 8-channel isolated digital input 8-channel relay output board

P16R16DIO: 16-channel isolated digital input 16-channel relay output board

Optional

DN-37: Two 37-pin connector DIN-rail mounting terminal board

DB-37: 37-pin D-sub directly connector terminal board