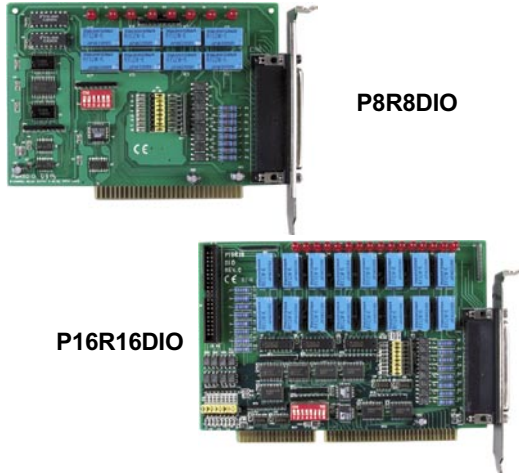


## ISA Relay Output Board

# P8R8DIO/P16R16DIO

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



### 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 $\Omega$
- Response time: 20  $\mu$ 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