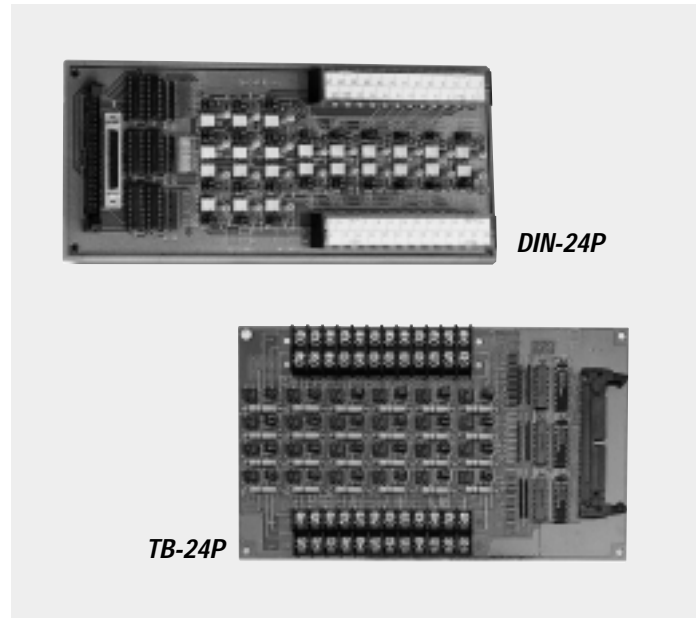


# DIN-24P/TB-24P

## Termination Board with 24 Opto-Isolated Digital Inputs

### Features

- 24 opto-isolated digital input channels
- 50-pin Opto-22™ compatible connector
- 50-pin SCSI-type connector available on DIN-24R to interface with ND-6058
- AC or DC polarity-free input, isolated or dry-contact (without isolation) by jumper selection
- Thresholds from 5VDC to 24VDC, adjustable by changing current-limiting resistors
- 2500Vrms optical isolation
- LEDs indicate input channel status
- Jumper selectable for voltage input mode or dry contact input mode
- Screw terminal for easy field wiring



### Introduction

The DIN-24P and TB-24P digital input termination boards feature high-voltage opto-isolation on all input channels. They provide 24 channels that are accessed through a single 50-pin connector, standard on the NuDAQ digital I/O boards, such as ACL-7122, ACL-7124, PET-48DIO, and PCI-7248, PCI-7296 and ND-6058. Each opto-isolated digital input accepts from 5VDC to 24VDC or 6.3mA to 50mA by changing a current limiting resistor for logic high. In addition, opto-isolated inputs provide isolation between separate channels and between each input channel of your PC system. Isolation prevents floating potential and ground loop problems from damaging the PC.

### Specifications

#### General Information

- Numbers of channel: 24
- Opto-isolator: 4N35
- Input impedance: 1.2K Ohms
- Isolation voltage: 2500VDC or Peak AC
- Input mode: Isolation or dry contact (non-isolation)
- Input electrical characteristics:
  - Logic "Low": 0.8V max.
  - Logic "High": 5VDC to +24VDC
  - Logic input high current: 6.3mA to 50mA

- Response time
  - 20 ms without AC filter
  - 2.2 ms with AC filter
- Dry contact input
  - Internal pull-up voltage supply : +5VDC
  - Logic "1": Input Closed
  - Logic "0": Input Open
- Indication display: 24 LEDs
  - Logic "1": LED on
  - Logic "0": LED off
- Power requirement
  - +5V@40mA (max.)
- Operating temperature: 0°~ 60°C
- Storage temperature: -20°~ 80°C
- Operating humidity
  - 5 ~ 95%, non-condensing
- Dimension
  - TB-24P: 220 mm x 132 mm
  - DIN-24P: 205 mm x 114 mm

### Ordering Information

#### TB-24P

24-CH Isolation/Dry contact termination board (includes one 1.5 meter 50-pin flat cable)

#### DIN-24P

24-CH Isolation/Dry contact termination board with DIN socket (include 1 m cable ACL-10250-1)

#### Pin Assignments for 50-pin connector of TB-24P

PC7	1	2	DGND
PC6	3	4	DGND
PC5	5	6	DGND
PC4	7	8	DGND
PC3	9	10	DGND
PC2	11	12	DGND
PC1	13	14	DGND
PC0	15	16	DGND
PB7	17	18	DGND
PB6	19	20	DGND
PB5	21	22	DGND
PB4	23	24	DGND
PB3	25	26	DGND
PB2	27	28	DGND
PB1	29	30	DGND
PB0	31	32	DGND
PA7	33	34	DGND
PA6	35	36	DGND
PA5	37	38	DGND
PA4	39	40	DGND
PA3	41	42	DGND
PA2	43	44	DGND
PA1	45	46	DGND
PA0	47	48	DGND
+5V	49	50	DGND