

# Terminal Board & Cable Selection Guide for DAQ

Type	DAQ (Data Acquisition Card)		Terminal Board		Mating Cable	Terminal Board Connector Type
	Model Name	Page No.	Model Name	Page No.		
High-Performance DAQ	DAQ/DAQe/PXI-2000	2-7	DIN-68S-01	14-7	ACL-10568-1	68-pin, SCSI-II, Female
	DAQ/DAQe/PXI-2200	2-11	DIN-68S-01	14-7	ACL-10568-1	68-pin, SCSI-II, Female
	DAQ/DAQe/PXI-2208	2-9	DIN-68S-01	14-7	ACL-10568-1	68-pin, SCSI-II, Female
	DAQ/DAQe-2213	2-15	DIN-68S-01	14-7	ACL-10568-1	68-pin, SCSI-II, Female
	DAQ/DAQe-2214	2-15	DIN-68S-01	14-7	ACL-10568-1	68-pin, SCSI-II, Female
	DAQ/DAQe/PXI-2500	2-13	DIN-68S-01	14-7	ACL-10568-1	68-pin, SCSI-II, Female
	PCI-9221	2-5	TB-9221-01	14-8	ACL-10137-1MM	37-pin, D-sub, Female
General-Purpose DAQ	PCI-9222, PCI-9223	2-5	DIN-68S-01	14-7	ACL-10568-1	37-pin, D-sub, Female
	cPCI-9112/R	2-19	DIN-100S-01	14-7	ACL-102100-1	100-pin, SCSI-II, Female
	cPCI-9116 Series	2-24	DIN-100S-01	14-7	ACL-102100-1	100-pin, SCSI-II, Female
	LPCI-9112	2-19	DIN-68S-01	14-7	ACL-10568-1	68-pin, SCSI-II, Female
	PCI-9111 Series, PCI-9112	2-21	DIN-37D-01	14-7	ACL-10137-1MM	37-pin, D-sub, Female
			ACLD-9137-01	14-8	ACL-10137-1MF	37-pin, D-sub, Male
			DIN-20P-01	14-7	ACL-10120-1	20-pin, Header
			ACLD-9188-01	14-8	ACL-10120-1	20-pin, Header
			ACLD-9182A-01	14-4	ACL-10120-1	20-pin, Header
	PCI-9113A	2-23	ACLD-9185-01	14-4	ACL-10120-1	20-pin, Header
			DIN-37D-01	14-7	ACL-10137-1MM	37-pin, D-sub, Female
			ACLD-9137-01	14-8	ACL-10137-1MF	37-pin, D-sub, Male
	PCI-9114 Series	2-18	DIN-37D-01	14-7	ACL-10137-1MM	37-pin, D-sub, Female
			ACLD-9137-01	14-8	ACL-10137-1MF	37-pin D-sub, Male
			DIN-20P-01	14-7	ACL-10120-1	20-pin, Header
ACLD-9188-01			14-8	ACL-10120-1	20-pin, Header	
PCI-9118/L Series	2-22	DIN-50S-01	14-7	ACL-10250-1	50-pin, SCSI-II, Female	
PCI-6202	2-26	DIN-68S-01	14-7	ACL-10568-1	68-pin, SCSI-II, Female	
Analog Output	PCI/PCIe/cPCI-6208, PCI/PCIe/cPCI-6216	ACLD-9137-01	14-8	ACL-10137-1MF	37-pin, D-sub, Female	
		DIN-37D-01	14-7	ACL-10137-1MM	37-pin, D-sub, Male	
	PCI-6308, PCI-6308A	2-25	DIN-37D-01	14-7	ACL-10137-1MM	37-pin, D-sub, Female
High-Speed DIO	cPCI-7200	ACLD-9137-01	14-8	ACL-10137-1MF	37-pin, D-sub, Male	
		DIN-100S-01	14-7	ACL-102100-1	100-pin, SCSI-II, Female	
	PCI/PCIe-7200	2-35	DIN-37D-01	14-7	ACL-10137-1MM	37-pin, D-sub, Female
			ACLD-9137F-01	14-8	ACL-10137-1MM	37-pin, D-sub, Female
	PCI/PCIe-7300A, cPCI-7300	2-33	DIN-100S-01	14-7	ACL-102100-1	100-pin, SCSI-II, Female
	PCIe-7350	2-31	DIN-68H-01	14-7	ACL-10279	68-pin, SCSI-VHDCI
	Digital I/O	cPCI-7248, cPCI-7249R	2-48	DIN-100S-01	14-7	ACL-102100-1
cPCI-7252		2-37	DIN-50S-01	14-7	ACL-10250-1	50-pin, SCSI-II, Female
cPCI/PCI-7432, 7433, 7434		2-43	DIN-100S-01	14-7	ACL-102100-1	100-pin, SCSI-II, Female
cPCI-7452		2-49	DIN-100S-01	14-7	ACL-102100-1	100-pin, SCSI-II, Female
PCI-7230, PCI-7233, PCI-7234(P)		2-45	DIN-37D-01	14-7	ACL-10137-1MM	37-pin, D-sub, Female
LPCI/LPCIe/cPCI-7230		2-45	DIN-50S-01	14-7	ACL-10250-1	50-pin, SCSI-II, Female
PCI-7250, PCI-7251		2-37	DIN-37D-01	14-7	ACL-10137-1MM	37-pin, D-sub, Female
LPCI/LPCIe-7250		2-37	DIN-50S-01	14-7	ACL-10250-1	50-pin, SCSI-II, Female
PCI-7256		2-39	DIN-68S-01	14-7	ACL-10569-1	68-pin, SCSI-II, Female
PCI-7258		2-40	DIN-68S-01	14-7	ACL-10569-1	68-pin, SCSI-II, Female
PCI-7260		2-36	--	--	ACL-10337 (for JP2/JP3)	--
Timer/Counter		PCI-7224, PCI-7248, PCI-7296	TB-24R-01	14-5	ACL-10150	50-pin, Header
			TB-24P-01	14-5	ACL-10150	50-pin, Header
			TB-16P8R-01	14-6	ACL-10150	50-pin, Header
	DIN-24R-01		14-5	ACL-10150	50-pin, Header	
	DIN-24P-01		14-5	ACL-10150	50-pin, Header	
	DIN-100S-01		14-7	ACL-102100-1	100-pin, SCSI-II, Female	
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		DIN-96DO-01	14-3	ACL-102100-1	100-pin, SCSI-II, Female	
		DIN-68S-01	14-7	ACL-10568D, ACL-10568F	68-pin, SCSI-II, Female	
PCI-7442, PCI-7443, PCI-7444	2-41	DIN-68S-01	14-7	ACL-10568D, ACL-10568F	68-pin, SCSI-II, Female	
High-Resolution Module	PCI/cPCI-8554	DIN-100S-01	14-7	ACL-102100-1	100-pin, SCSI-II, Female	
						PCI-9524

Cable		ACL-10120-ACL-10220-1	ACL-10568-1 (male/male)	ACL-10250-1 (male/male)	ACL-10279 (male/male)	ACL-102100-1 (male/male)	ACL-10137-1MM (male/male)	ACL-10137-1MF (male/female)	ACL-10150 (female/female)	ACL-10237-1 (male/male)	ACL-10262 (male/female)
Terminal Board		20-pin Flat Cable	68-pin SCSI-VHDCI to SCSI-II	50-pin SCSI-II	68-pin SCSI-VHDCI 50 Ω Impedance	100-pin SCSI-II	37-pin D-sub	37-pin D-sub	50-pin Flat Cable	37-pin D-sub	62-pin D-sub
Cable Connector Type	Model Name	Page No.	14-9	14-9	14-9	14-9	14-9	14-9	14-9	14-9	14-9
	Terminal Board Options	ACLD-9137-01	14-8						●		
ACLD-9137F-01		14-8					●				
ACLD-9138-01		14-8					●			●	
ACLD-9182A-01		14-4	●								
ACLD-9185-01		14-4	●								
ACLD-9188-01		14-8	●								
ACLD-9881-01		14-7					●				
DIN-20P-01		14-7	●								
DIN-24P-01		14-5							●		
DIN-24R-01		14-5							●		
DIN-37D-01		14-7					●				
DIN-50P-01		14-7							●		
DIN-50S-01		14-7			● <sup>(1)</sup>						
DIN-68S-01		14-7		● <sup>(2)(3)</sup>							
DIN-68H-01		14-7				●					
DIN-96DI-01		14-3					●				
DIN-96DO-01		14-3					●				
DIN-100S-01		14-7					● <sup>(4)</sup>				
TB-16P8R-01		14-6							●		
TB-24P-01		14-5									
TB-24R-01	14-5							●			
TB-6201-01	14-8									●	
TB-6221-01	14-8									●	
TB-6231-01	14-8									●	
TB-9221-01	14-8						●				

Note:  
 (1) For PCI-7348/PCI-7396 users, please use the ACL-10252 (male/male), 100-pin to two 50-pin cables.  
 (2) For PCI-7442/PCI-7443/PCI-7444 users, please use the ACL-10568D/ACL-10568F (male/male), 68-pin SCSI-VHDCI cables.  
 (3) For PCI-7256/PCI-7258 users, please use the ACL-10569 (male/male), 68-pin SCSI-II cable.  
 (4) For cPCI-7452 users, please use the ACL-102150 (male/male), SCSI-100 to MINI SCSI-100 cable.

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# DIN-96DI-01

## 96-CH Isolated DI Terminal Board with DIN-Rail Mounting



### Specifications

Number of Channels: 96  
Maximum Input Range: 24 V  
Digital Logic Levels

- 0 to 24 V non-polarity
- ◆ Input high voltage: 10 V to 24 V
- ◆ Input low voltage: 0 to 24 V

Input Resistance: 4.7 k $\Omega$  @ 0.5 W  
Isolation Voltage: 2500 V<sub>RMS</sub>  
I/O Connector: 100-pin SCSI-II female  
Operating Temperature: 0°C to +60°C  
Storage Temperature: -20°C to +80°C  
Relative Humidity: 5% to 95%, non-condensing  
Power Consumption:

+5 V
48 mA maximum

Dimensions: 226 mm x 121 mm x 48 mm (W x L x H)

### Ordering Information

**DIN-96DI-01**  
96-CH isolated DI terminal board with DIN-rail mounting

#### Accessory

- Cabling  
ACL-102100-1: 100-pin SCSI-II cable, 1 M

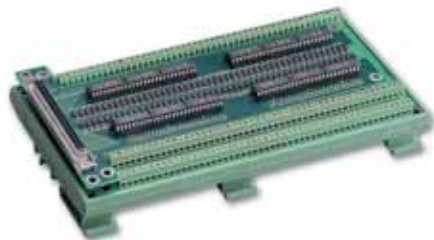
Contact your sales representative for cable length options.

### Features

- 96-CH isolated digital inputs
- For use with PCI-7396
- Isolated input voltage up to 24 V
- 2500 V<sub>RMS</sub> optical isolation
- Screw terminals for easy field wiring

# DIN-96DO-01

## 96-CH Isolated DO Terminal Board with DIN-Rail Mounting



### Specifications

Number of Channels: 96  
Output Type: open collector Darlington transistor  
Sink Current

- Max. 500 mA for only one Darlington pair
- 500 mA for all Darlington pair @ 20% duty

Power Dissipation: Max. 2.25 W per chip (8 DO channels)  
Supply Voltage: 5 V<sub>DC</sub> to 35 V<sub>DC</sub>  
Isolation Voltage: 2500 V<sub>RMS</sub>  
I/O Connector: 100-pin SCSI-II female  
Operating Temperature: 0°C to +60°C  
Storage Temperature: -20°C to +80°C  
Relative Humidity: 5% to 95%, non-condensing  
Power Consumption:

+5 V
102 mA maximum

Dimensions: 226 mm x 121 mm x 48 mm (W x L x H)

### Ordering Information

**DIN-96DO-01**  
96-CH isolated DO terminal board with DIN-rail mounting

#### Accessory

- Cabling  
ACL-102100-1: 100-pin SCSI-II cable, 1 M

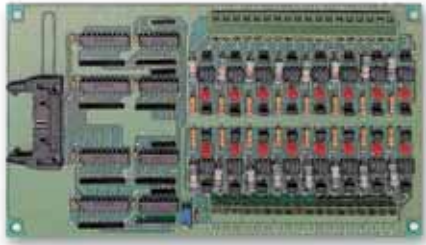
Contact your sales representative for cable length options.

### Features

- 96-CH isolated digital outputs
- For use with PCI-7396
- Sink current up to 500 mA on each isolated output
- 2500 V<sub>RMS</sub> optical isolation
- Screw terminals for easy field wiring

# ACLD-9182A-01

## Terminal Board with 16-CH Isolated Digital Inputs



### Specifications

- Isolated Digital Input
- Number of Channels: 16
- Maximum Input Range: 24 V, non-polarity
- Digital Logic Levels
  - ◆ 0 to 24 V, non-polarity
  - \* Input High Voltage: 5 to 24 V
  - \* Input Low Voltage: 0 to 0.7 V
- ◆ Input Resistance: 560 Ω @ 1 W
- ◆ Isolation Voltage: 2500 V<sub>RMS</sub>
- I/O Connector: 20-pin ribbon male
- Operating Temperature: 0°C to +60°C
- Storage Temperature: -20°C to +80°C
- Relative Humidity: 5% to 95%, non-condensing
- Dimensions: 205 mm x 114 mm

### Ordering Information

#### ACLD-9182A-01

Terminal board with 16-CH isolated digital inputs

#### Accessories

- Cabling
  - ACL-10120-1: 20-pin flat cable, 1 M
  - ACL-10220-1: 20-pin shielded and grounded cable, 1 M

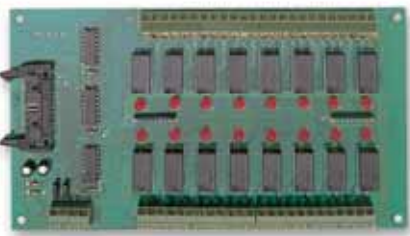
Contact your sales representative for cable length options.

### Features

- 16-CH opto-isolated digital inputs
- For use with 20-pin ribbon digital input connector of NuDAQ cards
- Non-polarity digital input range
- Isolated input voltage up to 24 V
- 5000 V<sub>RMS</sub> optical isolation
- Jumper configurable for voltage input or dry-contact input mode
- LED indicator for input status
- Screw terminals for easy field wiring

# ACLD-9185-01

## Terminal Board with 16-CH Relay Outputs



### Specifications

- Relay Output
- Number of Channels: 16
- Relay Type: SPDT (Form C)
- Isolation Voltage: 1500 V<sub>RMS</sub>
- Contact Rating
  - ◆ AC: 120 V @ 0.5 A
  - ◆ DC: 24 V @ 1 A
- Breakdown Voltage: 1000 V<sub>RMS</sub>
- Contact Resistance: 100 mΩ
- Relay ON/OFF time
  - ◆ Operate Time: 6 ms
  - ◆ Release Time: 3 ms
- LED Indicators for Relay Status: one per channel
- Expected Life:
  - ◆ > 5 x 10<sup>5</sup> operations @ 1 A, 24 V<sub>DC</sub>
  - ◆ > 2 x 10<sup>5</sup> operations @ 0.5 A, 120 V<sub>AC</sub>
- I/O Connector: 20-pin ribbon male
- Operating Temperature: 0°C to +60°C
- Storage Temperature: -20°C to +80°C
- Relative Humidity: 5% to 95%, non-condensing
- Power Consumption:

+5 V	+12 V
200 mA maximum	528 mA maximum

Dimensions: 205 mm x 114 mm

### Ordering Information

#### DIN-96DO-01

96-CH isolated DO terminal board with DIN-rail mounting

#### Accessory

- Cabling
  - ACL-102100-1: 100-p in SCSI-II cable, 1 M

Contact your sales representative for cable length options.

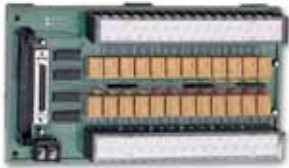
### Features

- 16-CH single-pole, double-throw (SPDT form C) relay outputs
- For use with 20-pin digital input connector of NuDAQ cards
- Maximum switching voltage up to 60 V<sub>DC</sub>/120 V<sub>AC</sub>
- Maximum switching current up to 1 A<sub>DC</sub>/AC
- Onboard relay driver circuitry
- LED indicators for relay status
- Screw terminals for easy field wiring

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# DIN-24R-01, TB-24R-01

## Terminal Boards with 24-CH Relay Outputs



DIN-24R-01



TB-24R-01

### Features

- 24-CH single-pole, double-throw (SPDT form C) relay outputs
- 50-pin Opto-22 compatible connector
- Maximum switching voltage 220 Vdc/250 Vac
- Maximum switching current up to 2 Aac/Ac
- LED indicator for relay status
- Onboard relay driver circuitry
- Screw terminals for easy field wiring
- DIN socket available on DIN-24R-01
- 50-pin SCSI-type connector available on DIN-24R-01 to interface with ND-6058

### Specifications

- Relay Output
- Number of channels: 24
  - Relay Type: SPDT (Form C)
  - Contact Rating
    - ♦ AC: 125 V @ 0.6 A
    - ♦ DC: 30 V @ 2 A
  - Breakdown Voltage: 1500 V<sub>RMS</sub>
  - Contact Resistance: 50 mΩ
  - Relay ON/OFF Time
    - ♦ Operate time: 3 ms
    - ♦ Release time: 3 ms
  - LED Indicators for Relay Status: per channel
  - Expected Life: 5 x 10<sup>5</sup> operations @ 2 A, 30 Vdc
  - External Coil Excitation Voltage:
    - ♦ 12 V nominal, 19.2 V maximum (TB-24R/12-01 & DIN-24R/12-01)
    - ♦ 24 V nominal, 38.5 V maximum (TB-24R/24-01 & DIN-24R/24-01)

### I/O Connector

- 50-pin ribbon male
- 50-pin SCSI-II female
- Operating Temperature: 0°C to +60°C
- Storage Temperature: -20°C to +80°C
- Relative Humidity: 5% to 95%, non-condensing
- Power Consumption:

	+12 V	+24 V
TB-24R/12-01	288 mA maximum	-
TB-24R/24-01	-	44 mA maximum

### Dimensions

- TB-24R-01: 220 mm x 132 mm x 15 mm (W x L x H)
- DIN-24R-01: 203 mm x 120 mm x 55 mm (W x L x H)

### Ordering Information

#### TB-24R/12-01

Terminal board with 24-CH relay outputs @ 12 V coil voltage

#### TB-24R/24-01

Terminal board with 24-CH relay outputs @ 24 V coil voltage

#### DIN-24R/12-01

Terminal board with 24-CH relay outputs @ 12 V coil voltage and DIN-rail mounting

#### DIN-24R/24-01

Terminal board with 24-CH relay outputs @ 24 V coil voltage and DIN-rail mounting

#### Accessory

- Cabling  
ACL-10150-: 50-pin flat cable

Contact your sales representative for cable length options.

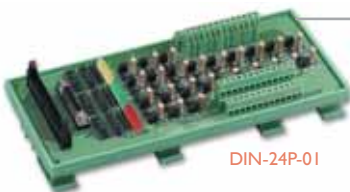
### Introduction

The DIN-24R-01 and TB-24R-01 relay output boards are designed for industrial control applications. It contains 24 electro-mechanical SPDT relays that can be driven by the 24-bit digital output ports of the PCI-7224, PCI-7248, PCI-7296, ACL-7112, ACL-7124, PET-48DIO, and ND-6058.

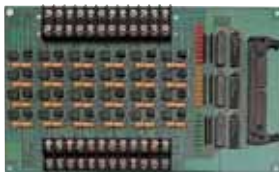
Each relay's switching capacity is 60 W, 125 V<sub>AC</sub>. The normally closed, and common contacts for each relay are made available for maximum flexibility.

# DIN-24P-01, TB-24P-01

## Terminal Boards with 24-CH Opto-Isolated Digital Inputs



DIN-24P-01



TB-24P-01

### Features

- 24-CH opto-isolated digital inputs
- 50-pin opto-22 compatible connector
- Non-polarity digital input range
- Isolated input voltage up to 24 V
- 5000 V<sub>RMS</sub> optical isolation
- Jumper configurable for voltage input or dry-contact input mode
- LED indicator for input status
- Screw terminals for easy field wiring
- DIN socket is available on DIN-24P-01
- 50-pin SCSI-type connector available on DIN-24P-01 to interface with ND-6058

### Specifications

- Input Modes
- Voltage input
  - Dry contact input
- Isolated Digital Input
- Number of channels: 24, maximum
  - Maximum input range: 24 V, non-polarity
  - Digital logic levels
    - ♦ 0 to 24 V, non-polarity
      - \* Input high voltage: 5 V to 24 V
      - \* Input low voltage: 0 to +1.5 V
    - Input resistance: 1.2 kΩ @ 0.5 W
    - Isolation voltage: 5000 V<sub>RMS</sub>
- Dry Contact Input
- Number of channels: 24
  - Internal pull-up voltage supply: +5 Vdc
  - LED Indicators for Input Status: one per channel

### I/O Connector

- 50-pin ribbon male
- 50-pin SCSI-II female
- Operating Temperature: 0°C to +60°C
- Storage Temperature: -20°C to +80°C
- Relative Humidity: 5% to 95%, non-condensing
- Power Requirement:

+5 V
40 mA maximum

### Dimensions

- TB-24P-01: 220 mm x 132 mm x 23 mm (W x L x H)
- DIN-24P-01: 259 mm x 121 mm x 55 mm (W x L x H)

### Ordering Information

#### TB-24P/24-01

Terminal Board with 24-CH isolated digital inputs

#### DIN-24P/24-01

Terminal Board with 24-CH isolated digital inputs and DIN-rail mounting

#### Accessory

- Cabling  
ACL-10150: 50-pin flat cable

Contact your sales representative for cable length options.

### Introduction

The DIN-24P-01 and TB-24P-01 digital input terminal boards feature high-voltage optoisolation on all input channels.

They provide 24 channels that are accessed through a single 50-pin connector that is standard on the NuDAQ digital I/O boards, including ACL-7122, ACL-7124, PET-48DIO, PCI-7224, PCI-7248, PCI-7296 and ND-6058. Each channel's input mode is configurable via jumper settings.

# TB-16P8R-01

Terminal Board with 16-CH Isolated DI & 8-CH Relay Outputs



## Specifications

Number of Isolated DI Channels: 16  
 Number of Relay Output Channels: 8  
 LED Indicators for Input and Output Status: one per channel  
 Electronics Characteristics of Isolated DI: refer to the TB-24P-01's specifications  
 Electronics Characteristics of Relay Outputs: refer to the TB-24R-01's specifications  
 I/O Connector: 50-pin ribbon male  
 Operating Temperature: 0°C to +60°C  
 Storage Temperature: -20°C to +80°C  
 Relative Humidity: 5% to 95%, non-condensing  
 Power Requirements:

+5 V	+12 V
40 mA maximum	100 mA maximum

Dimensions: 220 mm x 132 mm x 22 mm (W x L x H)

## Ordering Information

### TB-16P8R/12-01

Terminal board with 16-CH isolated DI & 8-CH relay outputs

### TB-16P8R/24-01

Terminal board with 16-CH isolated DI & 8-CH relay outputs

### Accessory

- Mating Cable  
 ACL-10150: 50-pin flat cable

Contact your sales representative for cable length options.

## Features

- 16-CH isolated digital inputs
- Non-polarity digital input range
- Isolated input voltage up to 24 V
- 5000 V<sub>RMS</sub> optical isolation
- Jumper configurable for voltage input or dry contact input mode
- 8-CH single-pole double-throw (SPDT form C) relays
- Maximum switching voltage 220 V<sub>dc</sub>/250 V<sub>ac</sub>
- Maximum switching current up to 2 A<sub>dc/ac</sub>
- Onboard relay driver circuitry
- LED indicators for both input and relay status
- Screw terminals for easy field wiring

# 3U to 6U PXI/CompactPCI Adapter



## Introduction

Order additional adapter kits to convert 3U PXI/CompactPCI cards to 6U size to fit in with 6U PXI/CompactPCI systems.

## Ordering Information

### SCSI-100/6U Panel w/FRP

6U adapter for 3U DAQ/DIO PXI/CompactPCI cards with 100-pin SCSI-II connector

- Compliant with cPCI-9116 series, cPCI-9112 series, cPCI-7300, cPCI-7200, cPCI-7432/7433/7434, cPCI-7248/7249R, and cPCI-8554 series

### DB-37/62 6U Panel w/FRP

6U adapter for 3U DAQ/DIO PXI/CompactPCI cards with 37-pin/62-pin D-Sub connector

- Compliant with cPCI-6208/6216 series, cPCI-7230, and cPCI-7252

### PXI-20XX/25XX 6U/Panel

6U adapter for 3U PXI-20XX/25XX cards with single 68-pin SCSI-VHDCI connector

- Compliant with PXI-2000 series, and PXI-2500 series

### PXI-22XX 6U/Panel w/FRP

6U adapter for 3U PXI-22XX cards with dual 68-pin SCSI-VHDCI connectors

- Compliant with PXI-2200 series, and PXI-2208

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# General Purpose Terminal Board

## DIN Rail Screw Terminal Boards

- Universal screw terminal boards for easy wiring
- DIN socket for easy mounting in DIN-rail

### DIN-100S-01



#### Terminal Board with One 100-pin SCSI-II Connector and DIN-rail Mounting

- On-board Connector Type: 100-pin SCSI-II female
- Dimensions: 158 mm x 120 mm x 52 mm (W x L x H)
- Mating Cable:
  - ◆ ACL-102100-1: 100-pin SCSI-II cable, 1 M

### DIN-68S-01



#### Terminal Board with One 68-pin SCSI-II Connector and DIN-rail Mounting

- On-board Connector Type: 68-pin SCSI-II female
- Dimensions: 103 mm x 85 mm x 43 mm (W x L x H)
- Mating Cables:
  - ◆ ACL-10568-1: 68-pin SCSI-VHDCI cable, 1 M
  - ◆ ACL-10569-1: 68-pin SCSI-II cable, 1 M

### DIN-50S-01



#### Terminal Board with One 50-pin SCSI-II Connector and DIN-rail Mounting

- On-board Connector Type: 50-pin SCSI-II female
- Plastic cover for protection of wiring
- Dimensions: 125 mm x 85 mm x 50 mm (W x L x H)
- Mating Cable:
  - ◆ ACL-10250-1: 50-pin SCSI-II cable, 1 M

### DIN-50P-01



#### Terminal Board with One 50-pin Header and DIN-rail mounting

- On-board Connector Type: 50-pin header
- Dimensions: 103 mm x 85 mm x 43 mm (W x L x H)
- Mating Cable:
  - ◆ ACL-10150: 50-pin flat cable

### DIN-37D-01



#### Terminal Board with One 37-pin D-sub Connector and DIN-rail Mounting

- On-board Connector Type: 37-pin D-sub female
- Dimensions: 113 mm x 85 mm x 52 mm (W x L x H)
- Mating Cable:
  - ◆ ACL-10137-1MM: 37-pin D-sub male/male cable, 1 M

### DIN-20P-01



#### Terminal Board with One 20-pin Header and DIN-rail Mounting

- On-board Connector Type: 20-pin header
- Dimensions: 68 mm x 85 mm x 55 mm (W x L x H)
- Mating Cable:
  - ◆ ACL-10120-1: 20-pin flat cable, 1 M

### DIN-68H-01



#### Terminal Board with One 68-pin SCSI-VHDCI Connector and 0 or 50 Ω Jumper Selectable Impedance

- On-board Connector Type: 68-pin SCSI-VHDCI
- Dimensions: 103 mm x 85 mm x 43 mm (W x L x H)
- Mating Cable:
  - ◆ ACL-10279: 68-pin SCSI-VHDCI cable with 50 Ω impedance

## Ordering Information

<b>DIN-100S-01</b>	Terminal board with one 100-pin SCSI-II connector and DIN-rail mounting
<b>DIN-68S-01</b>	Terminal board with one 68-pin SCSI-II connector and DIN-rail mounting
<b>DIN-50S-01</b>	Terminal board with one 50-pin SCSI-II connector and DIN-rail mounting
<b>DIN-50P-01</b>	Terminal board with one 50-pin header and DIN-rail mounting
<b>DIN-37D-01</b>	Terminal board with one 37-pin D-sub connector and DIN-rail mounting
<b>DIN-20P-01</b>	Terminal board with one 20-pin header and DIN-rail mounting
<b>DIN-68H-01</b>	Terminal board with one 68-pin SCSI-VHDCI connector and 0 or 50 Ω jumper selectable impedance

### ACLD Screw Terminal Boards

- Low-cost universal screw terminal boards
- Blank pads accommodate applications such as break detection, low-pass filter, current shunt and voltage attenuator on ACLD-9881-01, ACLD-9188-01, and ACLD-9138-01
- Table-top mounting using nylon standoffs

#### ACLD-9881-01



General Purpose Terminal Board with One 37-pin D-sub Connector for PCI-9113A and ACL-8113A

- For use with PCI-9113A and ACL-8113
- On-board Connector Type: 37-pin D-sub female
- Reliable screw clamp termination blocks
- Dimensions: 222 mm x 105 mm
- Mating Cable:
  - ♦ ACL-10137-1MM: 37-pin D-sub male/male cable, 1 M

#### ACLD-9188-01



General Purpose Terminal Board with Two Connector Options: Two 20-pin Headers or One 37-pin D-sub Connector

- On-board Connector Options: Two 20-pin male headers or one 37-pin D-sub female
- Reliable screw clamp terminal blocks
- Dimensions: 222 mm x 114 mm
- Mating Cables:
  - ♦ ACL-10120-1: 20-pin flat cable, 1 M
  - ♦ ACL-10220-1: 20-pin shielded & grounded cable, 1 M

#### ACLD-9138-01



General Purpose Terminal Board with One 37-pin D-sub Connector

- On-board Connector Type: 37-pin D-sub female
- Blank RC circuits for analog input boards
- Reliable screw clamp terminal blocks
- Dimensions: 103 mm x 114 mm
- Mating Cables:
  - ♦ ACL-10237-1: 37-pin D-sub male/male flat cable, 1 M
  - ♦ ACL-10137-1MM: 37-pin D-sub male/male cable, 1 M

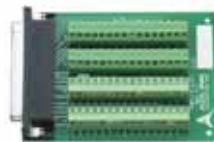
#### ACLD-9137-01 / ACLD-9137F-01



General Purpose Terminal Board with One 37-pin D-sub Connector

- ACLD-9137-01: on-board 37-pin D-sub male connector
- ACLD-9137F-01: on-board 37-pin D-sub female connector
- Dimensions: 124 mm x 72 mm
- Mating Cables:
  - ♦ ACL-10137-1MM: 37-pin D-sub male/male cable, 1 M (for ACLD-9137F-01)
  - ♦ ACL-10137-1MF: 37-pin D-sub male/female cable, 1 M (for ACLD-9137-01)

#### TB-6201-01 / TB-6221-01 / TB-6231-01



General Purpose/Multiplexer/Matrix Switch Terminal Board with One 62-pin D-sub Connector

- For use with PXI-7901, PXI-7921, and PXI-7931
- On-board Connector Type: 62-pin D-sub female
- Dimensions: 105.81 mm x 230 mm
- Mating Cable:
  - ♦ ACL-10262: 62-pin D-sub male/male cable, 1 M

#### TB-9221



General Purpose Terminal Board with One 37-pin D-sub Connector. Support Differential to Single-ended Encoder Signal Conversion for PCI-9221

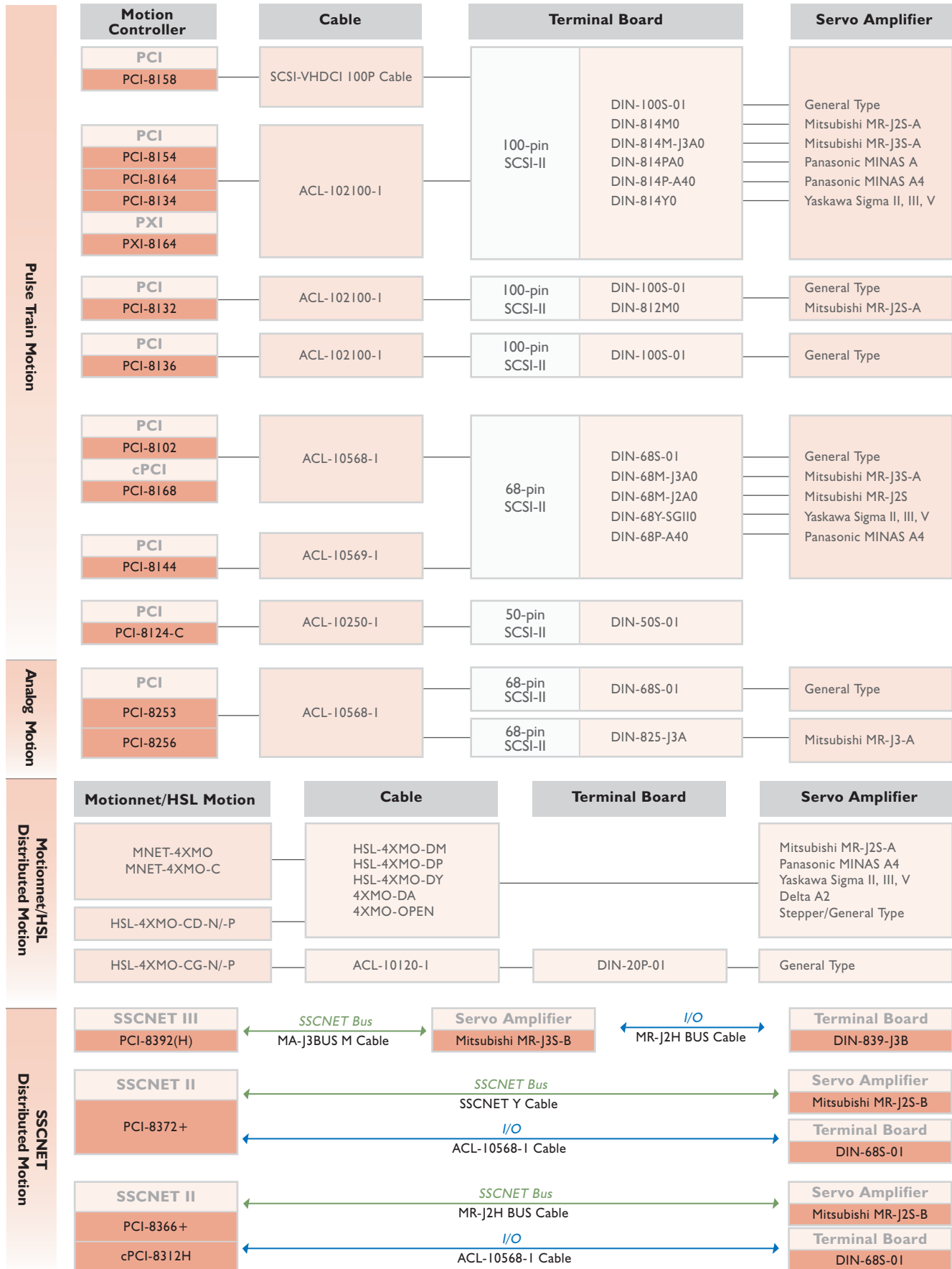
- For use with PCI-9221
- On-board Connector Type: 37-pin D-sub female
- Dimensions: 155 mm x 106 mm
- Mating Cable:
  - ♦ ACL-10137-1MM: 37-pin D-sub male/male cable, 1 M

### Ordering Information

<b>ACLD-9881-01</b>	General purpose terminal board with one 37-pin D-sub connector for PCI-9113A and ACL-8113A	<b>TB-6201-01</b>	General purpose switch terminal board with one 62-pin D-sub female connector for PXI-7901, PXI-7921, and PXI-7931
<b>ACLD-9188-01</b>	General purpose terminal board with two 20-pin headers and one 37-pin D-sub connector	<b>TB-6221-01</b>	Multiplexer switch terminal board with one 62-pin D-sub female connector for PXI-7901, PXI-7921, and PXI-7931
<b>ACLD-9138-01</b>	General purpose termination board with one 37-pin D-sub connector	<b>TB-6231-01</b>	Matrix switch terminal board with one 62-pin D-sub female connector for PXI-7901, PXI-7921, and PXI-7931
<b>ACLD-9137-01</b>	General purpose terminal board with one 37-pin D-sub male connector	<b>TB-9221</b>	General purpose terminal board with one 37-pin D-sub connector supports differential to single-ended encoder signal conversion for PCI-9221
<b>ACLD-9137F-01</b>	General purpose terminal board with one 37-pin D-sub female connector		



# Terminal Board & Cable Selection Guide for Motion



# Terminal Board for Motion

For Mitsubishi Servos

## DIN-812M0



Terminal Board for Mitsubishi MR-J2S-A Servo Amplifiers

- On-board Connector Type: 100-pin SCSI-II
- Dimensions: 123 mm x 107 mm x 44 mm (W x L x H)
- Mating Cable: -ACL-102100-1: 100-pin SCSI-II cable, 1 M

## DIN-814M0



Terminal Board for Mitsubishi MR-J2S-A Servo Amplifiers

- On-board Connector Type: 100-pin SCSI-II
- Dimensions: 123 mm x 107 mm x 44 mm (W x L x H)
- Mating Cable: -ACL-102100-1: 100-pin SCSI-II cable, 1 M

## DIN-68M-J2A0



Terminal Board for Mitsubishi MR-J2S-A Servo Amplifiers

- On-board Connector Type: 68-pin SCSI-II
- Dimensions: 103 mm x 83 mm x 43 mm (W x L x H)
- Mating Cable: -ACL-10568-1: 68-pin SCSI-VHDCI cable, 1 M  
-ACL-10569-1: 68-pin SCSI-II cable, 1 M

## DIN-814M-J3A0



Terminal Board for Mitsubishi MR-J3S-A Servo Amplifiers

- Onboard Connector Type: 100-pin SCSI-II
- Dimensions: 123 mm x 107 mm x 44 mm (W x L x H)
- Mating Cable: -ACL-102100-1: 100-pin SCSI-II cable, 1 M

For Mitsubishi Servos

For Yaskawa Servos

## DIN-68M-J3A0



Terminal Board for Mitsubishi MR-J3S-A Servo Amplifiers

- On-board Connector Type: 68-pin SCSI-II
- Dimensions: 103 mm x 83 mm x 43 mm (W x L x H)
- Mating Cables: -ACL-10568-1: 68-pin SCSI-VHDCI cable, 1 M  
-ACL-10569-1: 68-pin SCSI-II cable, 1 M

## DIN-839-J3B



Terminal Board for Mitsubishi MR-J2S-A Servo Amplifiers

- On-board Connector Type: 68-pin SCSI-II
- Dimensions: 103 mm x 83 mm x 43 mm (W x L x H)
- Mating Cable: -MA-J2HBUS M: controller to amplifier bus cable

## DIN-825-J3A



Terminal Board for Mitsubishi MR-J3S-A Servo Amplifiers

- On-board Connector Type: 68-pin SCSI-II
- Dimensions: 103 mm x 83 mm x 43 mm (W x L x H)
- Mating Cable: -ACL-10568-1: 68-pin SCSI-VHDCI cable, 1 M  
-ACL-10569-1: 68-pin SCSI-II cable, 1 M

## DIN-814Y0



Terminal Board for Yaskawa Sigma II/III/V Servo Amplifiers

- On-board Connector Type: 100-pin SCSI-II
- Dimensions: 123 mm x 107 mm x 44 mm (W x L x H)
- Mating Cable: -ACL-102100-1: 100-pin SCSI-II cable, 1 M

## DIN-68Y-SGII0



Terminal Board for Yaskawa Sigma II/III/V Servo Amplifiers

- On-board Connector Type: 68-pin SCSI-II
- Dimensions: 103 mm x 83 mm x 43 mm (W x L x H)
- Mating Cables: -ACL-10568-1: 68-pin SCSI-VHDCI cable, 1 M  
-ACL-10569-1: 68-pin SCSI-II cable, 1 M

For Panasonic Servos

## DIN-814P-A40



Terminal Board for Panasonic MINAS A4 Servo Amplifiers with 100-pin SCSI-II connector

- On-board Connector Type: 100-pin SCSI-II
- Dimensions: 123 mm x 107 mm x 44 mm (W x L x H)
- Mating Cable: -ACL-102100-1: 100-pin SCSI-II cable, 1 M

## DIN-68P-A40



Terminal Board for Panasonic MINAS A4 Servo Amplifiers with 68-pin SCSI-II connector

- On-board Connector Type: 68-pin SCSI-II
- Supports 500 k & 2 Mpps pulse frequency input options
- Mating Cables: -ACL-10568-1: 68-pin SCSI-VHDCI cable, 1 M  
-ACL-10569-1: 68-pin SCSI-II cable, 1 M

## DIN-814PA0



Terminal Board for Panasonic MINAS A Servo Amplifiers

- On-board Connector Type: 100-pin SCSI-II
- Dimensions: 123 mm x 107 mm x 44 mm (W x L x H)
- Mating Cable: -ACL-102100-1: 100-pin SCSI-II cable, 1 M

## Ordering Information

<b>DIN-812M0</b>	Terminal Board for Mitsubishi MR-J2S-A servo amplifiers	<b>DIN-814Y0</b>	Terminal board for Yaskawa Sigma II/III/V servo amplifiers
<b>DIN-814M0</b>	Terminal board for Mitsubishi MR-J2S-A servo amplifiers	<b>DIN-68Y-SGII0</b>	Terminal board for Yaskawa Sigma II/III/V servo amplifiers
<b>DIN-68M-J2A0</b>	Terminal board for Mitsubishi MR-J2S-A servo amplifiers	<b>DIN-814P-A40</b>	Terminal board for Panasonic MINAS A4 servo amplifiers
<b>DIN-814M-J3A0</b>	Terminal board for Mitsubishi MR-J3S-A servo amplifiers	<b>DIN-68P-A40</b>	Terminal board for Panasonic MINAS A4 servo amplifiers
<b>DIN-68M-J3A0</b>	Terminal board for Mitsubishi MR-J3S-A servo amplifiers	<b>DIN-814PA0</b>	Terminal board for Panasonic MINAS A servo amplifiers
<b>DIN-839-J3B</b>	Terminal board for Mitsubishi MR-J2S-A servo amplifiers	<b>DIN-825-J3A</b>	Terminal board for Mitsubishi MR-J3S-A servo amplifiers

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# Cable Accessories

## Cable - General Purpose

### ACL-10568-1

68-pin SCSI-VHDCI cable (mating with AMP-787082-7), 1 M



### ACL-10569-1

68-pin SCSI-II cable (mating with AMP-787082-7), 1 M



### ACL-102100-1

100-pin SCSI-II cable (mating with AMP-787082-9), 1 M



### ACL-10120-1

20-pin flat cable, 1 M



### ACL-10250-1

50-pin SCSI-II cable (mating with AMP-787082-5), 1 M



### ACL-10137-1MM

37-pin D-sub male/male cable, 1 M



### ACL-10137-1MF

37-pin D-sub male/female cable, 1 M



### ACL-10232

9-pin D-sub (RS-232) male/female cable, 5 M



## Cable - DAQ

### ACL-10150

50-pin flat cable



### ACL-10237-1 (male/male)

37-pin D-sub male/male flat cable, 1 M



### ACL-10262

62-pin D-sub male/female cable, 1 M



### ACL-10568F-1

68-pin SCSI-VHDCI flat cable, 1 M  
(for PCI-7442, PCI-7443, and PCI-7444)



### ACL-10220-1

20-pin shielded & grounded cable, 1 M



### ACL-10252-1

100-pin to two 50-pin cable, 1 M  
(for DIN-502S)



### ACL-10279

68-pin SCSI-VHDCI cable with 50 Ω impedance



### ACL-102150

SCSI-100 to MINI SCSI-100 connector, 1 M  
(for cPCI-7452 only)



### ACL-10337

Two 20-Pin header to 37-Pin D-sub PC back panel



### ACL-10437

40-pin header to 37-pin D-sub PC back panel  
(for ACL-7225 and PCI/PCIe-7200)



### ACL-105100

100-pin SCSI-II assembly



### ACL-10537

37-pin D-sub assembly



### ACL-10550

50-pin SCSI-II assembly



### ACL-10568D-1

Dual-68-pin head to two 68-pin SCSI-VHDCI cable, 1 M  
(for PCI-7442, PCI-7443, and PCI-7444)



### ACL-IEEE488-1

IEEE 488 standard cable, 1 M



### ACL-PCIEXT-5

Extension cable, 5 M  
(for PCIS-8580-4S/13S)



### ACL-PXIES-2

Copper cable kit, 2 M  
(for PCI-8570 and PXI-8570)



### ACL-SSI-2/3/4

SSI bus cable for 2/3/4 devices



### SMB-BNC-1M

SMB to BNC cable, 1 M



### SMB-SMB-1M

SMB to SMB cable, 1 M



## Cable- Motion

### HSL-4XMO-DM Cable

- For Mitsubishi MR-J2S-A servo amplifiers
- Available for 1 M, 2 M, 3 M



### SSCNET Y Cable

- PCI-8372+ controller to amplifier bus cable
- Compliant with PCI-8372+
- Available for 2 M, 5 M, 10 M



### HSL-4XMO-DP Cable

- For Panasonic MINAS A4 servo amplifier with brake control
- Available for 1 M, 1.5 M, 2 M



### SCSI-VHDCI 100P Cable

- SCSI-VHDCI 100-pin cable
- Compliant with PCI-8158
- Available for 2 M, 3 M



### HSL-4XMO-DY Cable

- For Yaskawa Sigma II/III/V servo amplifier
- Available for 1 M, 2 M, 3 M



### MR-JCCBL M

- Encoder cable (for KFS series)
- Available for 2 M, 5 M



### MA-J3BUS M

- SSCNET III fiber cable
- Available for 0.15 M, 0.3 M, 0.5 M, 1 M, 3 M, 5 M



### MR-JHSCBL M

- Encoder cable (for SFS series)
- Available for 2 M, 5 M



### MR-J2HBUS M

- Controller to amplifier bus cable
- Compliant with PCI-8392(H), PCI-8366+, and cPCI-8312H
- Available for 2 M, 5 M



### ACL-50P M

- Controller to amplifier bus cable, 50-pin to 50-pin
- Available for 1 M, 2 M, 3 M
- Suitable for Panasonic A4 servo and Yaskawa Sigma II, III and V servo



### MR-J2HBUS M(CAN)

- Controller to amplifier bus cable
- Compliant with PCI-8392(H), PCI-8366+, and cPCI-8312H
- Available for 2 M, 5 M



### ACL-50P M-OPEN

- Controller to amplifier bus cable, 50-pin to open wire
- Available for 2 M, 3 M
- Suitable for Panasonic A4 servo and Yaskawa Sigma II, III and V servo



### 4XMO-DA Cable M

- For Delta A2 servo series
- Available for 3 M



### 4XMO-OPEN Cable M

- For Stepper or general purposed
- Available for 1 M, 2 M



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