

# General Specifications

GS 33J60H60-01EN

Models ARM15A, ARM55D,  
ARS15B, ARS15M, ARS55M  
Relay Boards (for FIO)



[Release 6]

## ■ GENERAL

This document describes the specifications of relay board used in FIO subsystem of CENTUM VP. Relay input/output boards are connected in between digital input/output modules (for FIO) and field devices. Relay input boards receive contact signals or voltage input signals of field devices. Relay output boards receive output signals of the digital output module and amplify by the relay, and then output to field devices. These relay boards support dual-redundant digital input/output modules (for FIO).

## ■ STANDARD SPECIFICATIONS

### ● Relay Boards

Models	Descriptions	Contact Points	Terminals	Signal Cables	Connectable Digital I/O Modules	
					Modules	Terminal Blocks
ARM15A	Mechanical Relay Board	32-point	M4 screws	AKB331 (for 32-point) AKB337 (for 64-point)	ADV151 ADV161	ATD5A —
ARM55D		32-point	M4 screws	AKB331 (for 32-point) AKB337 (for 64-point)	ADV551 ADV561	ATD5A —
ARM55W		32-point	M4 screws	AKB331 (for 32-point) AKB337 (for 64-point)	ADV551 ADV561	ATD5A —
ARM55T		32-point	M4 screws	AKB331 (for 32-point) AKB337 (for 64-point)	ADV551 ADV561	ATD5A —
ARM55C		32-point	M3.5 screws (M4 in power input part)	AKB331 (for 32-point) AKB337 (for 64-point)	ADV551 ADV561	ATD5A —
ARS15B-5 (48 V DC) ARS15B-6 (110 V DC)	Solid State Relay Board	32-point	M4 screws	AKB331 (for 32-point) AKB337 (for 64-point)	ADV151 ADV161	ATD5A —
ARS15M-1 (100 V AC) ARS15M-2 (220 V AC) ARS15M-3 (10 - 30 V DC)		32-point	Pressure clamp terminals	AKB331 (for 32-point) AKB337 (for 64-point)	ADV151 ADV161	ATD5A —
ARS55M-1 (100 V AC) ARS55M-2 (220 V AC) ARS55M-3 (5 - 60 V DC)		32-point	Pressure clamp terminals	AKB331 (for 32-point) AKB337 (for 64-point)	ADV551 ADV561	ATD5A —

## ● Relay Boards Detail Specifications

### Mechanical Relay Boards (Contact Input)

Model	ARM15A
<b>Usage</b>	Mechanical Relay Contact Input (Single / Dual-redundant)
<b>Contact Points</b>	32-point
<b>Terminals for Field Device Connection</b>	M4 screws
<b>Modules</b>	ADV151 (DI: 32-point) + ATD5A (Terminal block) ADV161 (DI: 64-point) (*1)
<b>Signal Cables</b>	AKB331 (for 32-point) AKB337 (for 64-point)
<b>Contact Input Signal</b>	ON signal: 150 Ω or less OFF signal: At least 200 kΩ
<b>External Contact Rating (Minimum Load)</b>	24 V DC, 13 mA (*3)
<b>Power Supply Voltage and Current Consumption of Internal Circuit (require external power supply)</b>	24 V DC Max. 0.32 A
<b>Power Supply for Field Device (require external power supply)</b>	Dual-line (supply power per 16-point) 24 V DC: Max. 0.3 A per one line
<b>Insulation Resistance</b>	At least 10 MΩ (500 V DC)
<b>Withstanding Voltage</b>	Between field device terminals and cases: 1.5 kV AC for 1 minute Between 24 V power terminals and cases: 500 V AC for 1 minute Between 24 V power terminals and field device terminals: 1.5 kV AC for 1 minute
<b>Ambient Temperature and Humidity</b>	0 to 50 °C, 10 to 90 %RH
<b>Standards</b>	EMC standards [CE Marking], [RCM], [KC Marking], [Morocco Compliance Marking (C <sub>1</sub> Marking)] (*2)
<b>Size</b>	W: 482.6 mm x H: 132.5 mm (3U)
<b>Weight</b>	Approx. 2.2 kg

\*1: Two sets of relay board (ARM15A) and two sets of signal cable (AKB337) are required for one ADV161.

\*2: ARM15A is out of scope of the Safety Standards.

\*3: It is voltage/current that ARM15A applies to the external contact power supply.

**Mechanical Relay Boards (Contact Output)**

Models	ARM55D	ARM55W ARM55T (with switch)	ARM55C
<b>Usage</b>	Mechanical Relay Dry Contact Output ("a" contact (NO)) (Single / Dual-redundant)	Mechanical Relay Wet Contact Output (Single / Dual-redundant) AUTO/OFF/ON switch (only for ARM55T)	Mechanical Relay Dry Contact Output ("a" contact or "b" contact (NO or NC)) (Single / Dual-redundant) (*6)
<b>Contact Points</b>	32-point	32-point	32-point
<b>Terminals for Field Device Connection</b>	M4 screws	M4 screws	M3.5 screws (*5) (M4 in power input part)
<b>Modules</b>	ADV551 (DO: 32-point) + ATD5A (Terminal block) ADV561 (DO: 64-point) (*1)	ADV551 (DO: 32-point) + ATD5A (Terminal block) ADV561 (DO: 64-point) (*1)	ADV551 (DO: 32-point) + ATD5A (Terminal block) ADV561 (DO: 64-point) (*1)
<b>Signal Cables</b>	AKB331 (for 32-point) AKB337 (for 64-point)	AKB331 (for 32-point) AKB337 (for 64-point)	AKB331 (for 32-point) AKB337 (for 64-point)
<b>Maximum Load (*2)</b>	250 V AC: 2 A per point 30 V DC: 2 A per point 125 V DC: 0.1 A per point (*3)	250 V AC: 0.6 A per point 30 V DC: 0.6 A per point 125 V DC: 0.1 A per point (*3)	30 V DC: 1.5 A per point
<b>Minimum Load</b>	5 V, 10 mA	5 V, 10 mA	5 V, 10 mA
<b>Power Supply Voltage and Current Consumption of Internal Circuit (require external power supply)</b>	24 V DC Max. 0.65 A	24 V DC Max. 0.65 A	24 V DC Max. 0.85 A
<b>Power Supply for Field Device (require external power supply)</b>	—	Dual-line (supply power per 16-point) 250 V AC: Max. 9.6 A 30 V DC: Max. 9.6 A 125 V DC: Max. 1.6 A	—
<b>Insulation Resistance</b>	At least 10 MΩ (500 V DC)	At least 10 MΩ (500 V DC)	At least 10 MΩ (500 V DC)
<b>Withstanding Voltage</b>	Between field device terminals and cases: 3 kV AC for 1 minute Between 24 V power terminals and cases: 500 V AC for 1 minute Between 24 V power terminals and field device terminals: 3 kV AC for 1 minute	Between field device terminals and cases: 3 kV AC for 1 minute Between 24 V power terminals and cases: 500 V AC for 1 minute Between 24 V power terminals and field device terminals: 3 kV AC for 1 minute	Between field device terminals and cases: 2 kV AC for 1 minute Between 24 V power terminals and cases: 500 V AC for 1 minute Between 24 V power terminals and field device terminals: 2 kV AC for 1 minute
<b>Ambient Temperature and Humidity</b>	0 to 50 °C, 10 to 90 %RH	0 to 50 °C, 10 to 90 %RH	0 to 50 °C, 10 to 90 %RH
<b>Standards</b>	Safety Standard [CE Marking], [CSA], [Morocco Compliance Marking (C <sub>+</sub> Marking)] (*3) EMC standards [CE Marking], [RCM], [KC Marking], [Morocco Compliance Marking (C <sub>+</sub> Marking)]	Safety Standard [CE Marking], [CSA], [Morocco Compliance Marking (C <sub>+</sub> Marking)] (*3) EMC standards [CE Marking], [RCM], [KC Marking], [Morocco Compliance Marking (C <sub>+</sub> Marking)]	EMC standards [CE Marking], [RCM], [KC Marking], [Morocco Compliance Marking (C <sub>+</sub> Marking)] (*4)
<b>Size</b>	W: 482.6 mm x H: 132.5 mm (3U)	W: 482.6 mm x H: 177 mm (4U)	W: 482.6 mm x H: 132.5 mm (3U)
<b>Weight</b>	Approx. 2.2 kg	Approx. 2.6 kg	Approx. 2.2 kg

\*1: Two sets of relay board (ARM55D, ARM55W, ARM55T, or ARM55C) and two sets of signal cable (AKB337) are required for one ADV561.

\*2: For inductive loads, connect a spark killer (CR network for AC; diode for DC) in parallel with loads.

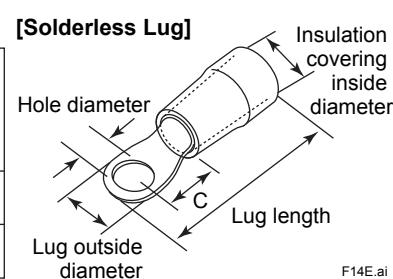
\*3: For DC, 30 V or less is the requirement for the Safety Standard.

\*4: ARM55C is out of scope of the Safety Standards.

\*5: The applicable size of solderless lug is described below.

**[Solderless Lug Dimensions]**

Nominal cross sectional area (mm <sup>2</sup> )	Screw used (mm)	Hole diameter (mm)	Lug outside diameter (mm)	Lug length (mm)	Insulation covering inside diameter (mm)	Dimension "C" (mm)
1.25	3.5	3.7 or more	6.8 or less	Approx. 21	3.6 or more	4.0 or more
2.0	3.5	3.7 or more	6.8 or less	Approx. 21	4.3 or more	4.0 or more



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\*6: Select either "a" contact or "b" contact.

## Solid State Relay Boards (Contact Input)

Models	ARS15B-5 (48 V DC), ARS15B-6 (110 V DC)
<b>Usage</b>	Solid State Relay Contact Input (Single / Dual-redundant)
<b>Contact Points</b>	32-point
<b>Terminals for Field Device Connection</b>	M4 screws
<b>Modules</b>	ADV151 (DI: 32-point) + ATD5A (Terminal block) ADV161 (DI: 64-point) (*1)
<b>Signal Cables</b>	AKB331 (for 32-point) AKB337 (for 64-point)
<b>Contact Input Signal</b>	ON signal: 200 Ω or less OFF signal: At least 200 kΩ
<b>External Contact Rating</b>	ARS15B-5 (48 V DC): At least 60 V DC, 20 mA ARS15B-6 (110 V DC): At least 140 V DC, 20 mA
<b>Power Supply Voltage and Current Consumption of Internal Circuit (require external power supply)</b>	24 V DC Max. 0.32 A
<b>Power Supply for Field Device (require external power supply)</b>	Dual-line (supply power per 32-point) ARS15B-5 (48 V DC): 48 V DC; Max. 0.5 A per one line ARS15B-6 (110 V DC): 110 V DC; Max. 0.4 A per one line
<b>Insulation Resistance</b>	At least 10 MΩ (500 V DC)
<b>Withstanding Voltage</b>	Between field device terminals and cases: 2 kV AC for 1 minute Between 24 V power terminals and cases: 500 V AC for 1 minute Between 24 V power terminals and field device terminals: 2 kV AC for 1 minute
<b>Ambient Temperature and Humidity</b>	0 to 50 °C, 10 to 90 %RH
<b>Standards</b>	ARS15B-5 (48 V DC) (*2) : EMC standards [CE Marking], [RCM], [KC Marking] ARS15B-6 (110 V DC) : EMC standards [RCM], [KC Marking], [Morocco Compliance Marking (C <sub>+</sub> Marking)]
<b>Size</b>	W: 482.6 mm x H: 132.5 mm (3U)
<b>Weight</b>	Approx. 2.5 kg

\*1: Two sets of relay board (ARS15B-5, or ARS15B-6) and two sets of signal cable (AKB337) are required for one ADV161.

\*2: ARS15B-5 is out of scope of the Safety Standards.

**Solid State Relay Boards (Voltage Input)**

Models	<b>ARS15M-1 (100 V AC), ARS15M-2 (220 V AC), ARS15M-3 (10 - 30 V DC)</b>
<b>Usage</b>	Solid State Relay Voltage Input, Module type (Single / Dual-redundant)
<b>Contact Points</b>	32-point
<b>Terminals for Field Device Connection</b>	Pressure clamp terminals Cable specifications: see the table of terminal treatment for the pressure clamp terminal signal line and power line.
<b>Modules</b>	ADV151 (DI: 32-point) + ATD5A (Terminal block) ADV161 (DI: 64-point) (*1)
<b>Signal Cables</b>	AKB331 (for 32-point) AKB337 (for 64-point)
<b>Contact Input Signal</b>	ARS15M-1 (100 V AC) ON signal: 90 to 140 V AC OFF signal: 45 V AC or less ARS15M-2 (220 V AC) ON signal: 180 to 250 V AC OFF signal: 45 V AC or less ARS15M-3 (10 - 30 V DC) ON signal: 10 to 30 V DC OFF signal: 1 V DC or less
<b>External Contact Rating</b>	—
<b>Power Supply Voltage and Current Consumption of Internal Circuit (require external power supply)</b>	24 V DC Max. 1.0 A
<b>Power Supply for Field Device</b>	—
<b>Insulation Resistance</b>	At least 10 MΩ (500 V DC)
<b>Withstanding Voltage</b>	Between 24 V power terminals and field device terminals: 2.3 kV AC for 1 minute
<b>Ambient Temperature and Humidity</b>	0 to 50 °C, 10 to 90 %RH
<b>Standards</b>	ARS15M-1 (110 V AC): Safety standard [CSA], EMC standards [RCM], [KC Marking] ARS15M-2 (220 V AC): Safety standard [CSA], EMC standards [RCM], [KC Marking] ARS15M-3 (10 - 30 V DC): Safety standard [CE Marking], [Morocco Compliance Marking (C <sub>1</sub> Marking)], EMC standards [CE Marking], [RCM], [KC Marking], [Morocco Compliance Marking (C <sub>1</sub> Marking)]
<b>Size</b>	W: 436 mm x H: 125.4 mm
<b>Weight</b>	Approx. 3.0 kg

\*1: Two sets of relay board (ARS15M-1, ARS15M-2, or ARS15M-3) and two sets of signal cable (AKB337) are required for one ADV161.

### Solid State Relay Boards (Voltage Output)

Models	ARS55M-1 (100 V AC)	ARS55M-2 (220 V AC)	ARS55M-3 (5 - 60 V DC)		
<b>Usage</b>	Solid State Relay TRIAC Output, Transistor output (Single / Dual-redundant)				
<b>Contact Points</b>	32-point				
<b>Terminals for Field Device Connection</b>	Pressure clamp terminals Cable specifications: see the table of terminal treatment for the pressure clamp terminal signal line and power line.				
<b>Modules</b>	ADV551 (DO: 32-point) + ATD5A (Terminal block) ADV561 (DO: 64-point) (*1)				
<b>Signal Cables</b>	AKB331 (for 32-point) AKB337 (for 64-point)				
<b>Output Voltage/Current Range (*2)</b>	24 to 140 V AC  30 mA to 2.5 A (Ambient temperature is under 20 °C)  30 mA to 2 A (at 20 to 35 °C) 30 mA to 1.5 A (at 35 to 40 °C) 30 mA to 1.3 A (at 40 to 50 °C)  Inductive load must be 1.5 A or less, even when ambient temperature is under 35 °C.	24 to 250 V AC  30 mA to 2.5 A (Ambient temperature is under 20 °C)  30 mA to 2 A (at 20 to 35 °C) 30 mA to 1.5 A (at 35 to 40 °C) 30 mA to 1.3 A (at 40 to 50 °C)  Inductive load must be 1.5 A or less, even when ambient temperature is under 35 °C.	5 to 60 V DC  20 mA to 2.5 A (Ambient temperature is under 20 °C)  20 mA to 2 A (at 20 to 35 °C) 20 mA to 1.3 A (at 35 to 50 °C)  Inductive load must be 1.5 A or less.		
<b>Power Supply Voltage and Current Consumption of Internal Circuit (require external power supply)</b>	24 V DC Max. 0.9 A				
<b>Power Supply for Field Device</b>	—				
<b>Insulation Resistance</b>	At least 10 MΩ (500 V DC)				
<b>Withstanding Voltage</b>	Between 24 V power terminals and field device terminals: 2.3 kV AC for 1 minute				
<b>Ambient Temperature and Humidity</b>	0 to 50 °C, 10 to 90 %RH				
<b>Standards</b>	EMC standards [RCM], [KC Marking]				
<b>Size</b>	W: 436 mm x H: 125.4 mm				
<b>Weight</b>	Approx. 3.0 kg				

\*1: Two sets of relay board (ARS55M-1, ARS55M-2, or ARS55M-3) and two sets of signal cable (AKB337) are required for one ADV561.

\*2: For inductive loads, connect a spark killer (CR network for AC; diode for DC) in parallel with loads.

**Table: Terminal Treatment for Pressure Clamp Terminal Signal Line**

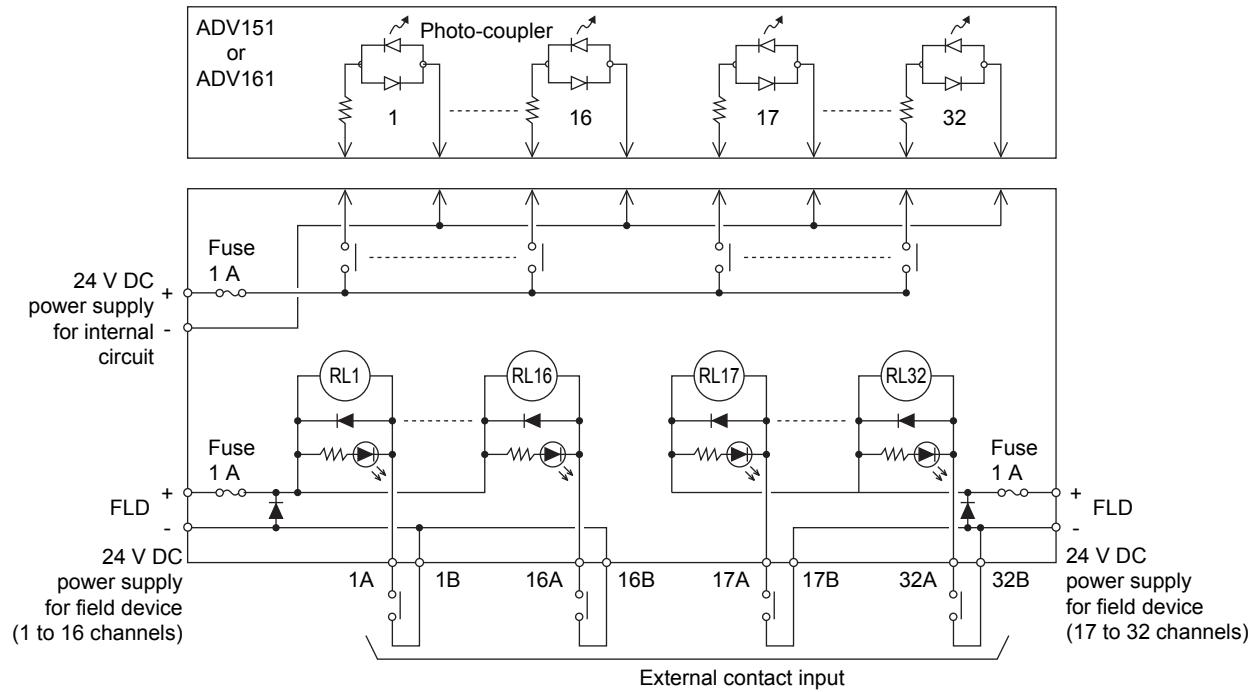
	Cable Thickness (mm <sup>2</sup> )	Peel-off Length (mm)	Inserting Part of Sleeve (mm)
<b>Without Sleeves</b>	0.5 to 2 (AWG20 to 14)	8	—
<b>With Sleeves</b>	0.5 to 2 (AWG20 to 14)	8	8

**Table: Terminal Treatment for Pressure Clamp Terminal Power Line**

	Cable Thickness (mm <sup>2</sup> )	Peel-off Length (mm)	Inserting Part of Sleeve (mm)
<b>Without Sleeves</b>	0.5 to 2 (AWG20 to 14)	9	—
<b>With Sleeves</b>	0.5 to 1.5 (AWG20 to 16)	9	8

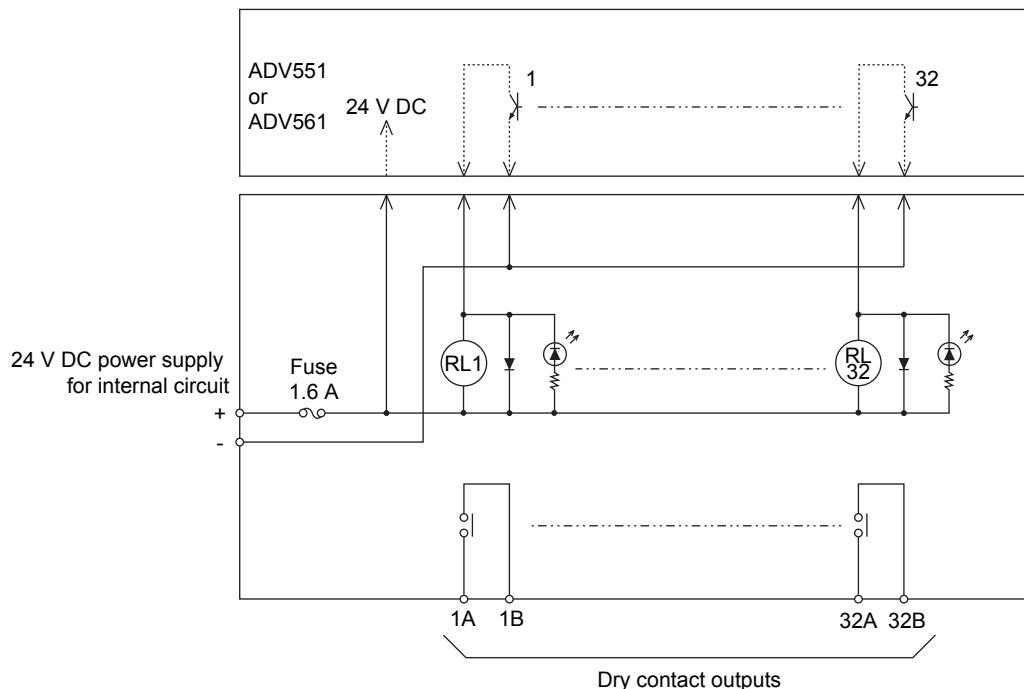
## ● Relay Input/Output Board Circuit Diagram

ARM15A



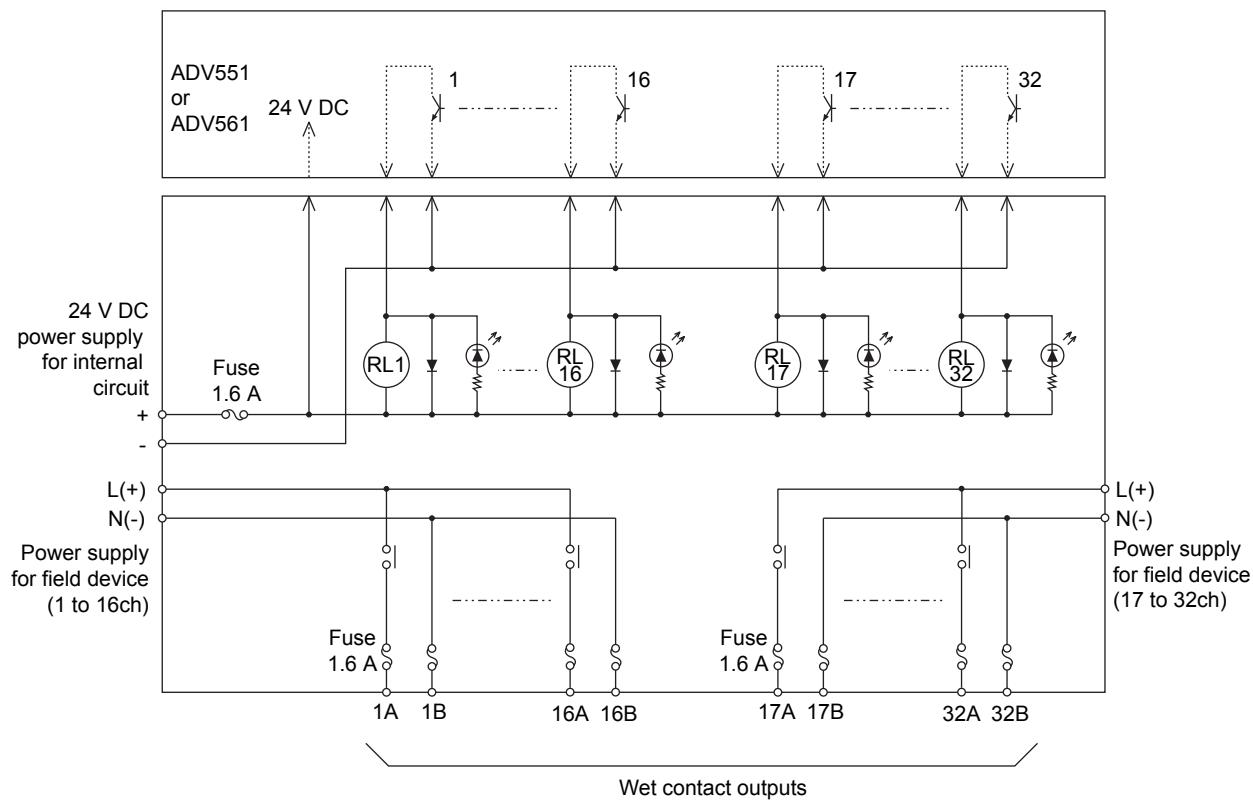
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ARM55D



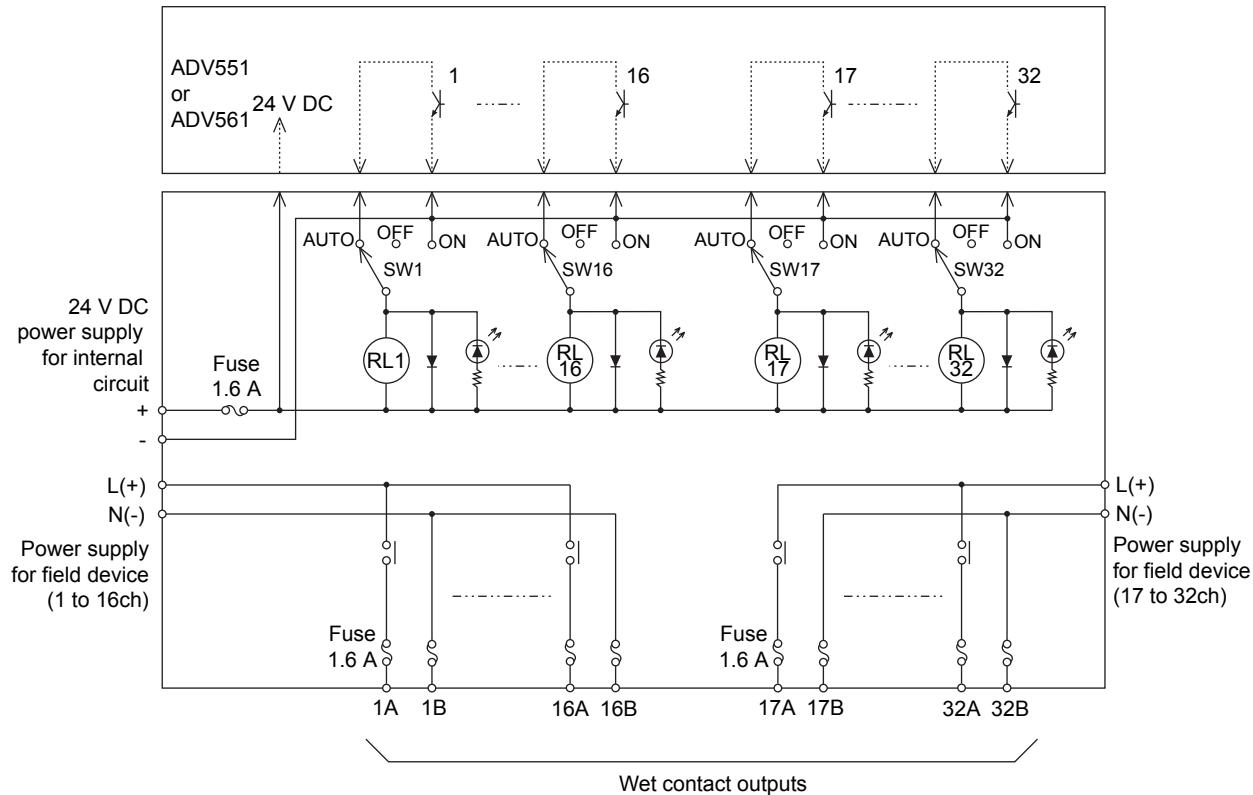
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## ARM55W



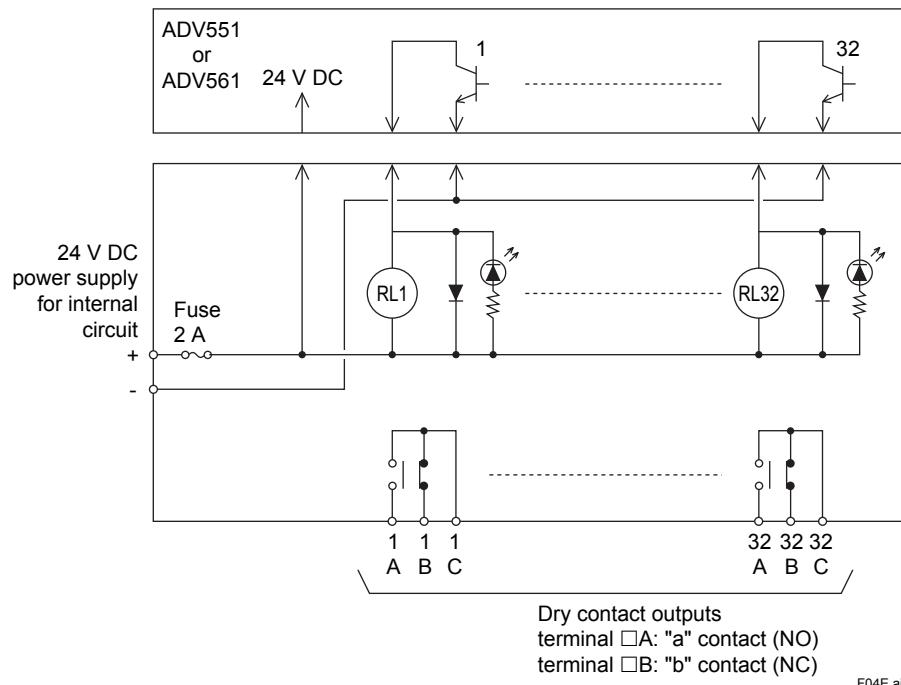
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## ARM55T



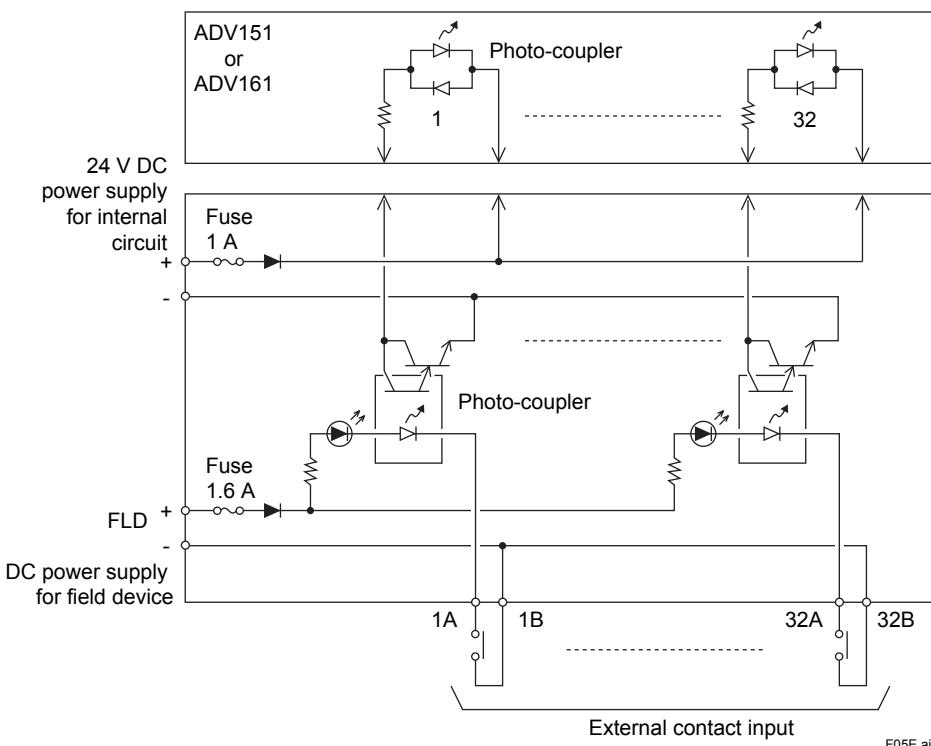
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## ARM55C

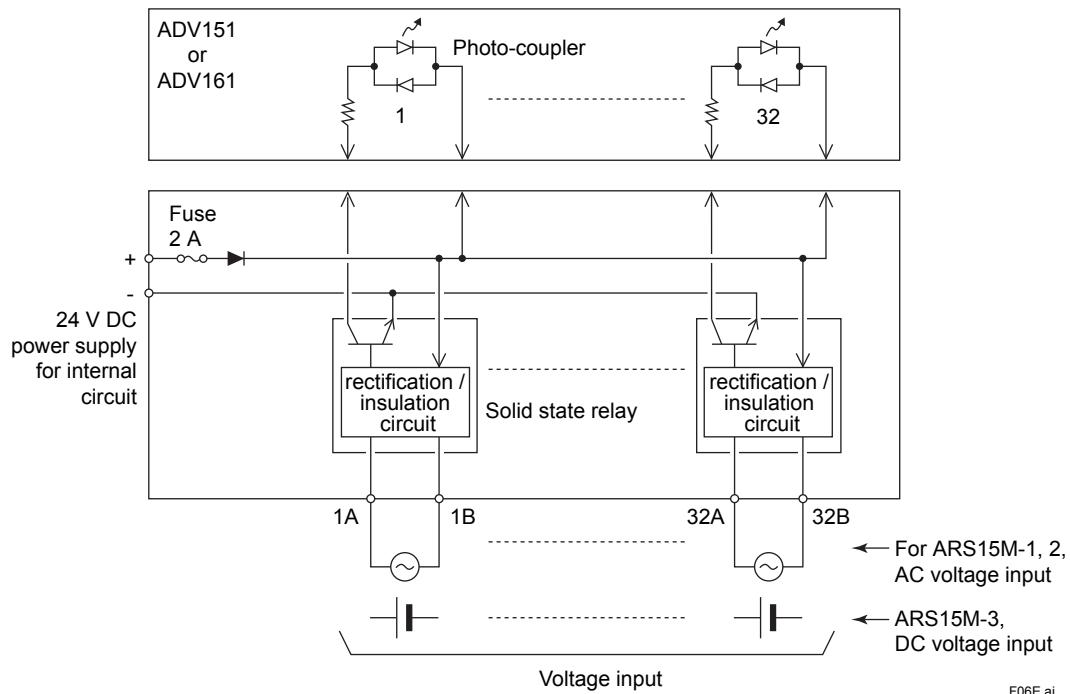
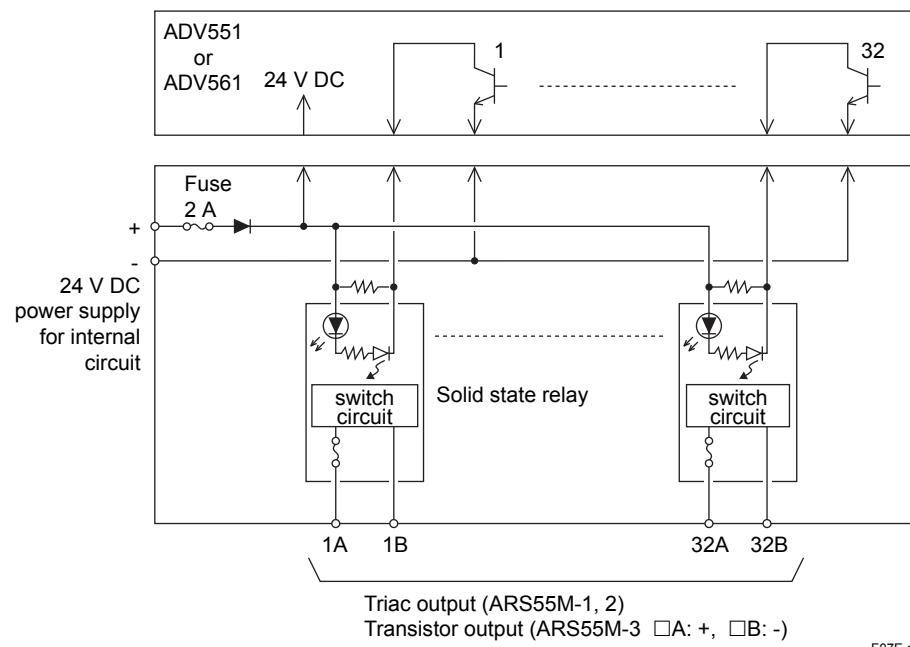


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## ARS15B

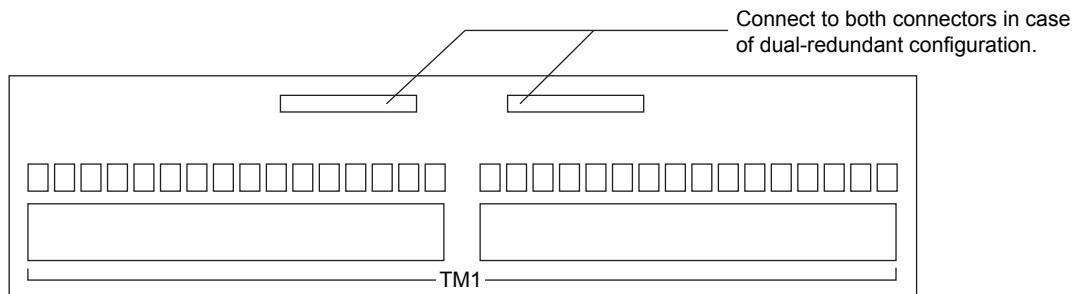


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**ARS15M****ARS55M**

## ● Terminals for Field Device Connection

### ARM15A



TM1 (Left side)

Signal name	LL (+)	IN1A	IN2A	IN3A	IN4A	IN5A	IN6A	IN7A	IN8A	IN9A	IN10A	IN11A	IN12A	IN13A	IN14A	IN15A	IN16A	N.C.
Terminal No.	FLD(+)	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A	16A	NC
Signal name	FLD(-)	1B	2B	3B	4B	5B	6B	7B	8B	9B	10B	11B	12B	13B	14B	15B	16B	NC

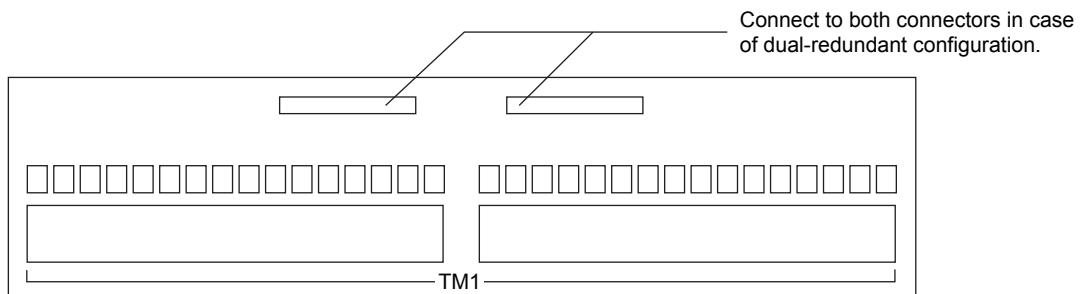
TM1 (Right side)

Signal name	RL (+)	IN17A	IN18A	IN19A	IN20A	IN21A	IN22A	IN23A	IN24A	IN25A	IN26A	IN27A	IN28A	IN29A	IN30A	IN31A	IN32A	24 V
Terminal No.	FLD(+)	17A	18A	19A	20A	21A	22A	23A	24A	25A	26A	27A	28A	29A	30A	31A	32A	+
Signal name	FLD(-)	17B	18B	19B	20B	21B	22B	23B	24B	25B	26B	27B	28B	29B	30B	31B	32B	-

Note: The terminal N.C. in the figure is an unused terminal; wiring is not required.

When connecting signals to adjacent terminals, make sure the insulation-covering parts of solderless lug do not overlap each other.

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**ARM55D****TM1 (Left side)**

Signal name	OUT 1A	OUT 2A	OUT 3A	OUT 4A	OUT 5A	OUT 6A	OUT 7A	OUT 8A	OUT 9A	OUT 10A	OUT 11A	OUT 12A	OUT 13A	OUT 14A	OUT 15A	OUT 16A	N.C.	N.C.
Terminal No.	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A	16A	NC	NC
	1B	2B	3B	4B	5B	6B	7B	8B	9B	10B	11B	12B	13B	14B	15B	16B	NC	NC

**TM1 (Right side)**

Signal name	OUT 17A	OUT 18A	OUT 19A	OUT 20A	OUT 21A	OUT 22A	OUT 23A	OUT 24A	OUT 25A	OUT 26A	OUT 27A	OUT 28A	OUT 29A	OUT 30A	OUT 31A	OUT 32A	N.C.	24 V
Terminal No.	17A	18A	19A	20A	21A	22A	23A	24A	25A	26A	27A	28A	29A	30A	31A	32A	NC	+
	17B	18B	19B	20B	21B	22B	23B	24B	25B	26B	27B	28B	29B	30B	31B	32B	NC	-

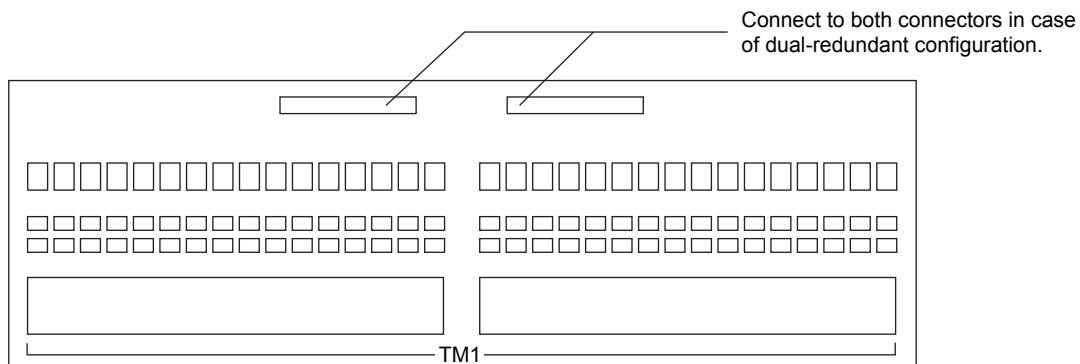
  

Signal name	OUT 17B	OUT 18B	OUT 19B	OUT 20B	OUT 21B	OUT 22B	OUT 23B	OUT 24B	OUT 25B	OUT 26B	OUT 27B	OUT 28B	OUT 29B	OUT 30B	OUT 31B	OUT 32B	N.C.	0 V
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Note: The terminal N.C. in the figure is an unused terminal; wiring is not required.

When connecting signals to adjacent terminals, make sure the insulation-covering parts of solderless lug do not overlap each other.

**ARM55W, ARM55T****TM1 (Left side)**

Signal name	LL (+)	OUT 1A	OUT 2A	OUT 3A	OUT 4A	OUT 5A	OUT 6A	OUT 7A	OUT 8A	OUT 9A	OUT 10A	OUT 11A	OUT 12A	OUT 13A	OUT 14A	OUT 15A	OUT 16A	N.C.
Terminal No.	L(+)	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A	16A	NC
Signal name	LN (-)	OUT 1B	OUT 2B	OUT 3B	OUT 4B	OUT 5B	OUT 6B	OUT 7B	OUT 8B	OUT 9B	OUT 10B	OUT 11B	OUT 12B	OUT 13B	OUT 14B	OUT 15B	OUT 16B	N.C.

**TM1 (Right side)**

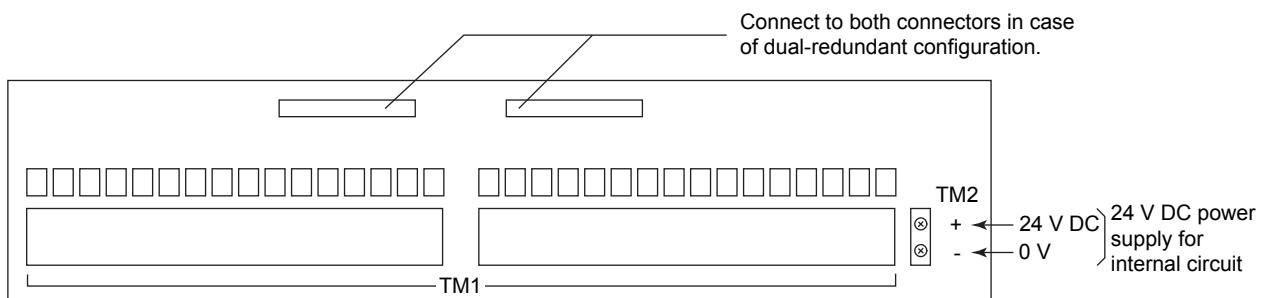
Signal name	RL (+)	OUT 17A	OUT 18A	OUT 19A	OUT 20A	OUT 21A	OUT 22A	OUT 23A	OUT 24A	OUT 25A	OUT 26A	OUT 27A	OUT 28A	OUT 29A	OUT 30A	OUT 31A	OUT 32A	24 V
Terminal No.	L(+)	17A	18A	19A	20A	21A	22A	23A	24A	25A	26A	27A	28A	29A	30A	31A	32A	+
Signal name	RN (-)	OUT 17B	OUT 18B	OUT 19B	OUT 20B	OUT 21B	OUT 22B	OUT 23B	OUT 24B	OUT 25B	OUT 26B	OUT 27B	OUT 28B	OUT 29B	OUT 30B	OUT 31B	OUT 32B	0 V

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Note: The terminal N.C. in the figure is an unused terminal; wiring is not required.

When connecting signals to adjacent terminals, make sure the insulation-covering parts of solderless lug do not overlap each other.

## ARM55C



## TM1 (Left side)

Signal name	OUT 1A	OUT 2A	OUT 3A	OUT 4A	OUT 5A	OUT 6A	OUT 7A	OUT 8A	OUT 9A	OUT 10A	OUT 11A	OUT 12A	OUT 13A	OUT 14A	OUT 15A	OUT 16A
Terminal No.	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A	16A
	1B	2B	3B	4B	5B	6B	7B	8B	9B	10B	11B	12B	13B	14B	15B	16B
	1C	2C	3C	4C	5C	6C	7C	8C	9C	10C	11C	12C	13C	14C	15C	16C
Signal name	OUT 1C	OUT 2C	OUT 3C	OUT 4C	OUT 5C	OUT 6C	OUT 7C	OUT 8C	OUT 9C	OUT 10C	OUT 11C	OUT 12C	OUT 13C	OUT 14C	OUT 15C	OUT 16C
Signal name	OUT 1B	OUT 2B	OUT 3B	OUT 4B	OUT 5B	OUT 6B	OUT 7B	OUT 8B	OUT 9B	OUT 10B	OUT 11B	OUT 12B	OUT 13B	OUT 14B	OUT 15B	OUT 16B

## TM1 (Right side)

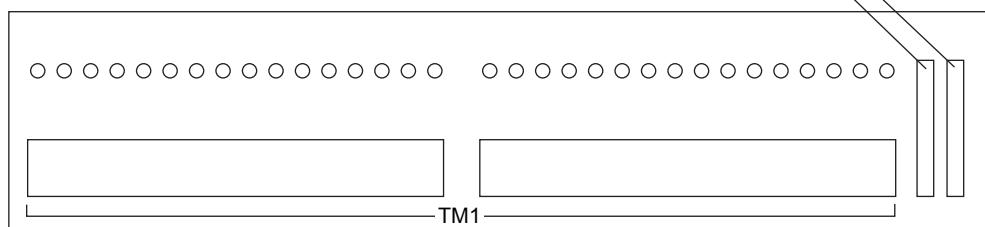
Signal name	OUT 17A	OUT 18A	OUT 19A	OUT 20A	OUT 21A	OUT 22A	OUT 23A	OUT 24A	OUT 25A	OUT 26A	OUT 27A	OUT 28A	OUT 29A	OUT 30A	OUT 31A	OUT 32A
Terminal No.	17A	18A	19A	20A	21A	22A	23A	24A	25A	26A	27A	28A	29A	30A	31A	32A
	17B	18B	19B	20B	21B	22B	23B	24B	25B	26B	27B	28B	29B	30B	31B	32B
	17C	18C	19C	20C	21C	22C	23C	24C	25C	26C	27C	28C	29C	30C	31C	32C
Signal name	OUT 17C	OUT 18C	OUT 19C	OUT 20C	OUT 21C	OUT 22C	OUT 23C	OUT 24C	OUT 25C	OUT 26C	OUT 27C	OUT 28C	OUT 29C	OUT 30C	OUT 31C	OUT 32C
Signal name	OUT 17B	OUT 18B	OUT 19B	OUT 20B	OUT 21B	OUT 22B	OUT 23B	OUT 24B	OUT 25B	OUT 26B	OUT 27B	OUT 28B	OUT 29B	OUT 30B	OUT 31B	OUT 32B

F11E.ai

Note: When connecting signals to adjacent terminals, make sure the insulation-covering parts of solderless lug do not overlap each other.

**ARS15B**

Connect to both connectors in case  
of dual-redundant configuration.

**TM1 (Left side)**

Signal name	L (+)	IN1A	IN2A	IN3A	IN4A	IN5A	IN6A	IN7A	IN8A	IN9A	IN10A	IN11A	IN12A	IN13A	IN14A	IN15A	IN16A
Terminal No.	FLD(+)	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A	16A
	FLD(-)	1B	2B	3B	4B	5B	6B	7B	8B	9B	10B	11B	12B	13B	14B	15B	16B

Signal name N (-) IN1B IN2B IN3B IN4B IN5B IN6B IN7B IN8B IN9B IN10B IN11B IN12B IN13B IN14B IN15B IN16B

**TM1 (Right side)**

Signal name	IN17A	IN18A	IN19A	IN20A	IN21A	IN22A	IN23A	IN24A	IN25A	IN26A	IN27A	IN28A	IN29A	IN30A	IN31A	IN32A	24 V
Terminal No.	17A	18A	19A	20A	21A	22A	23A	24A	25A	26A	27A	28A	29A	30A	31A	32A	+
	17B	18B	19B	20B	21B	22B	23B	24B	25B	26B	27B	28B	29B	30B	31B	32B	-

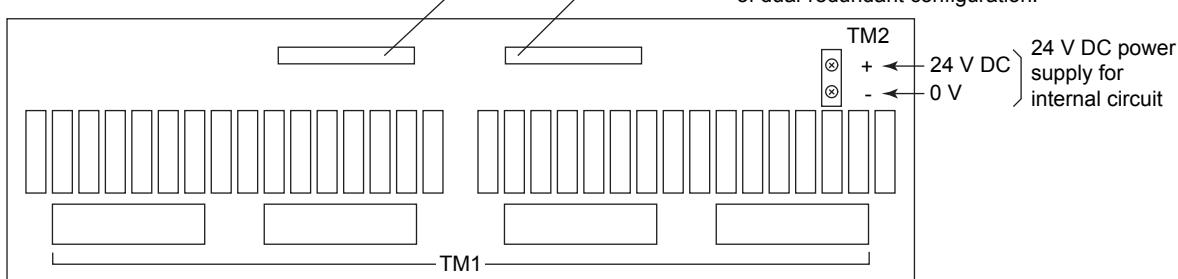
Signal name IN17B IN18B IN19B IN20B IN21B IN22B IN23B IN24B IN25B IN26B IN27B IN28B IN29B IN30B IN31B IN32B 0 V

F12E.ai

Note: When connecting signals to adjacent terminals, make sure the insulation-covering parts of solderless lug do not overlap each other.

**ARS15M, ARS55M**

Connect to both connectors in case  
of dual-redundant configuration.

**TM1**

Signal name (ARS15M)	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8	IN9	IN10	IN11	IN12	IN13	IN14	IN15	IN16
(ARS55M)	OUT1	OUT2	OUT3	OUT4	OUT5	OUT6	OUT7	OUT8	OUT9	OUT10	OUT11	OUT12	OUT13	OUT14	OUT15	OUT16
Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Signal name (ARS15M)	IN17	IN18	IN19	IN20	IN21	IN22	IN23	IN24	IN25	IN26	IN27	IN28	IN29	IN30	IN31	IN32
(ARS55M)	OUT17	OUT18	OUT19	OUT20	OUT21	OUT22	OUT23	OUT24	OUT25	OUT26	OUT27	OUT28	OUT29	OUT30	OUT31	OUT32
Terminal No.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

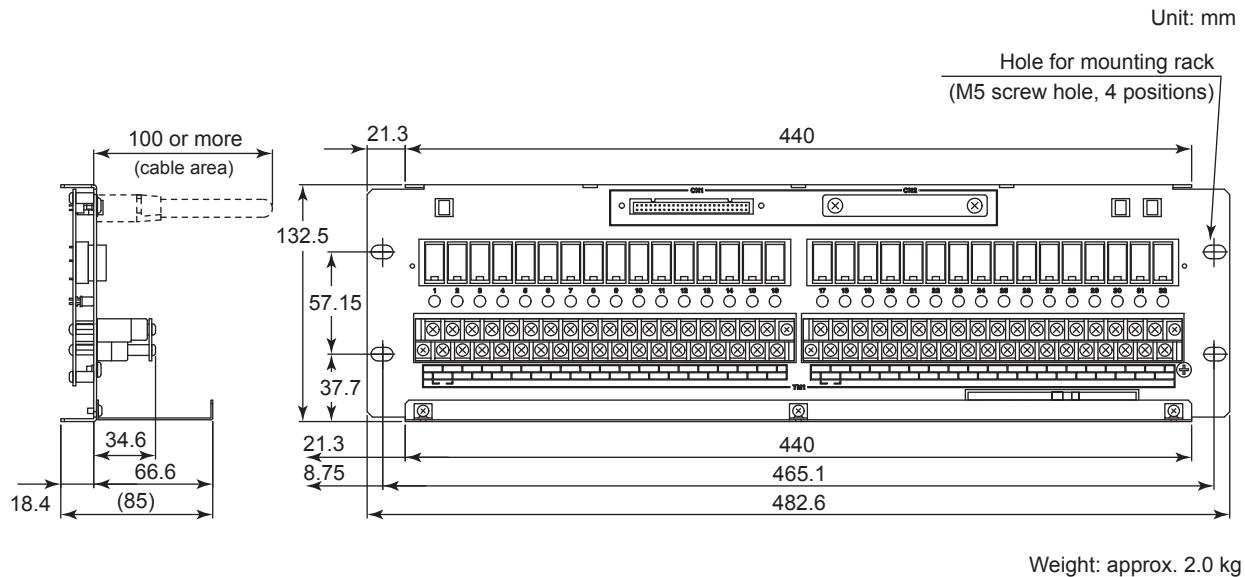
F13E.ai

Note: For ARS55M-3 and ARS15M-3, terminal number "A" is for "+", "B" is for "-."

## ■ EXTERNAL DIMENSIONS

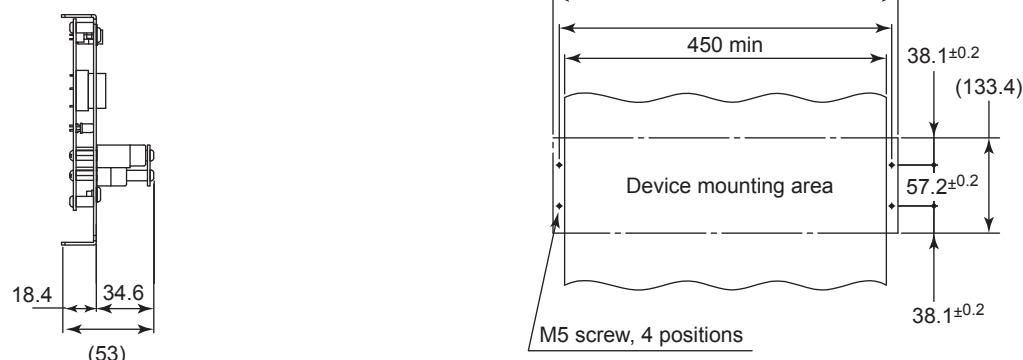
## ● ARM15A

### Other than /BR3



When option code is “/NTRY”

### Rack Mounting Dimension



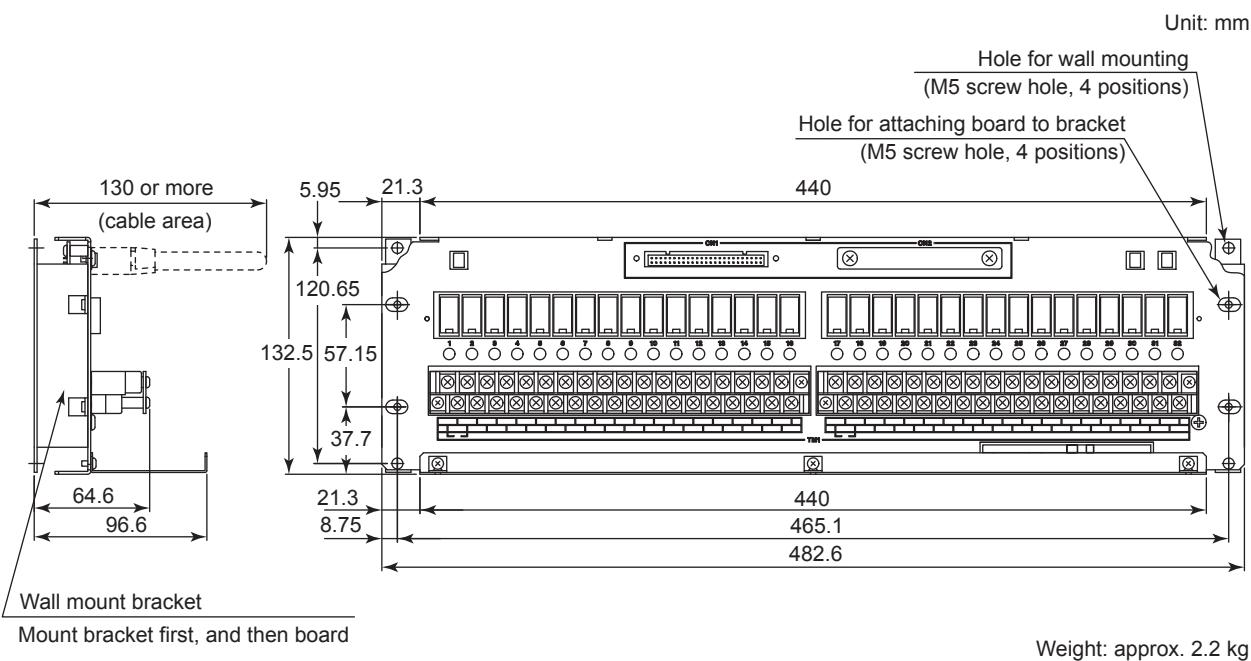
E15E ai

### Nominal Tolerances :

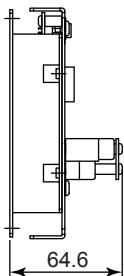
Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

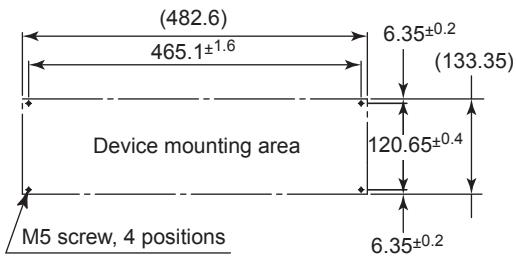
## For /BR3



When option code is "/NTRY"



Wall Mounting Dimension



F16E.ai

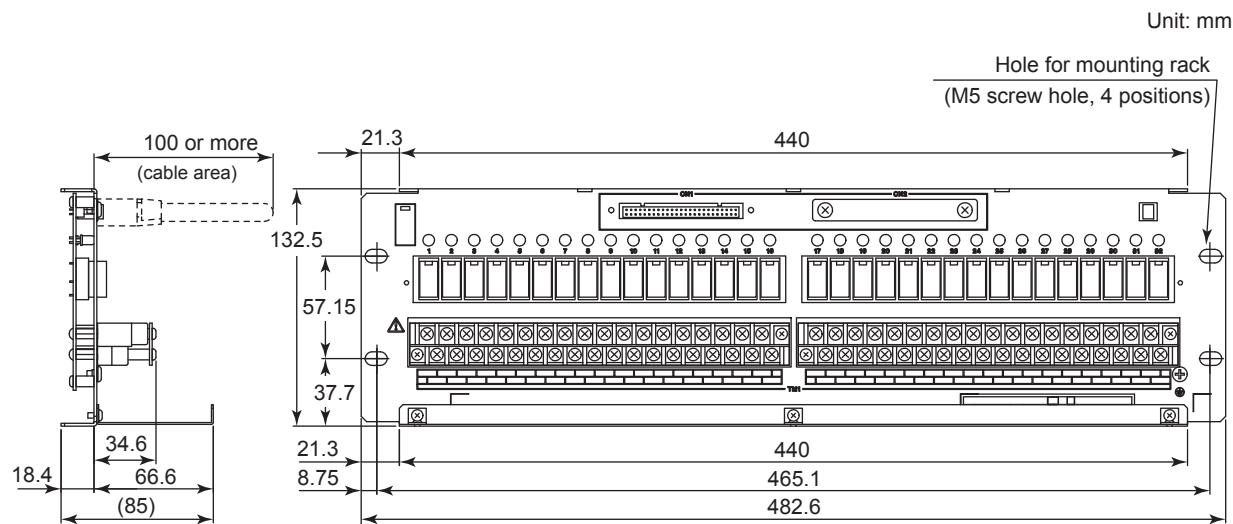
## Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

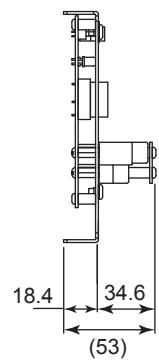
## ● ARM55D

### Other than /BR3

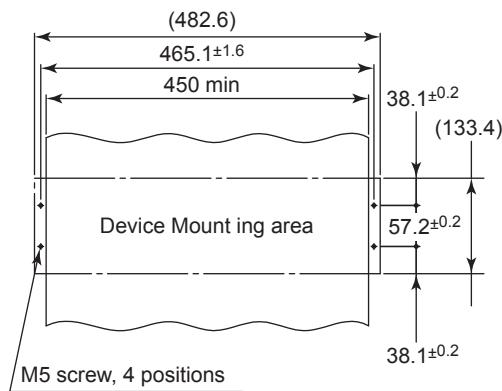


Weight: approx. 2.0 kg

When option code is "/NTRY"



Rack Mounting Dimension



F17E.ai

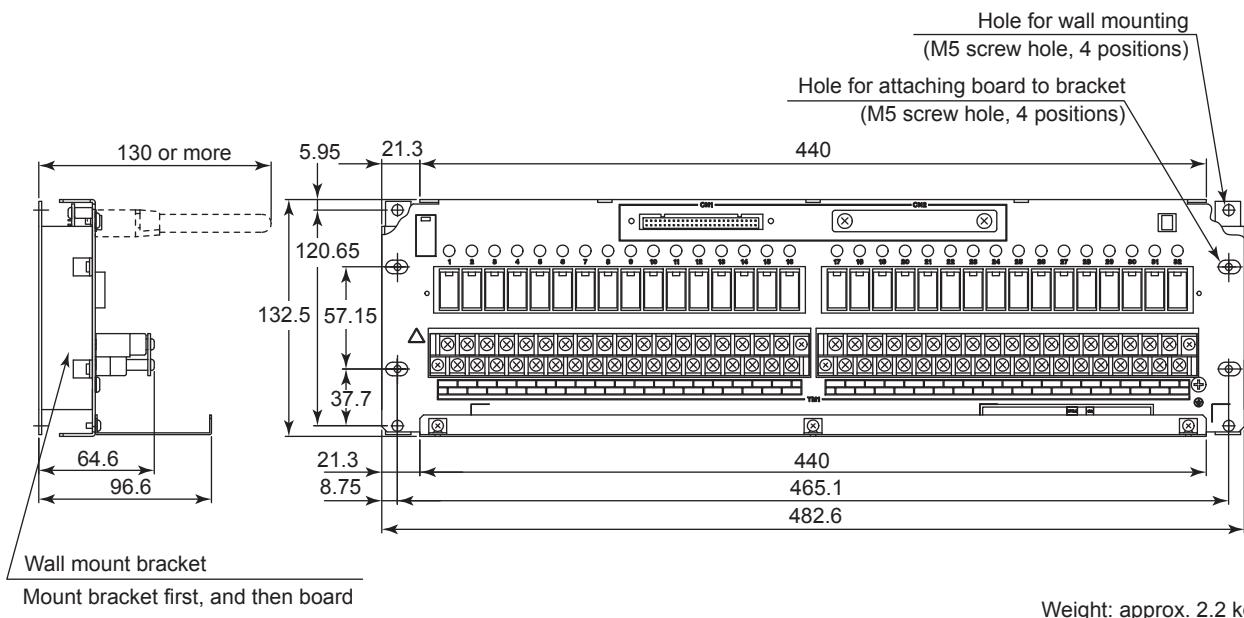
#### Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## For /BR3

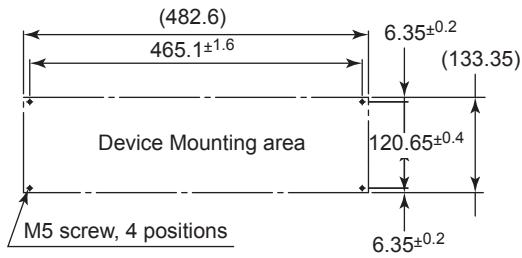
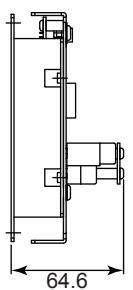
Unit: mm



Weight: approx. 2.2 kg

When option code is "/NTRY"

Wall Mounting Dimension



F18E.ai

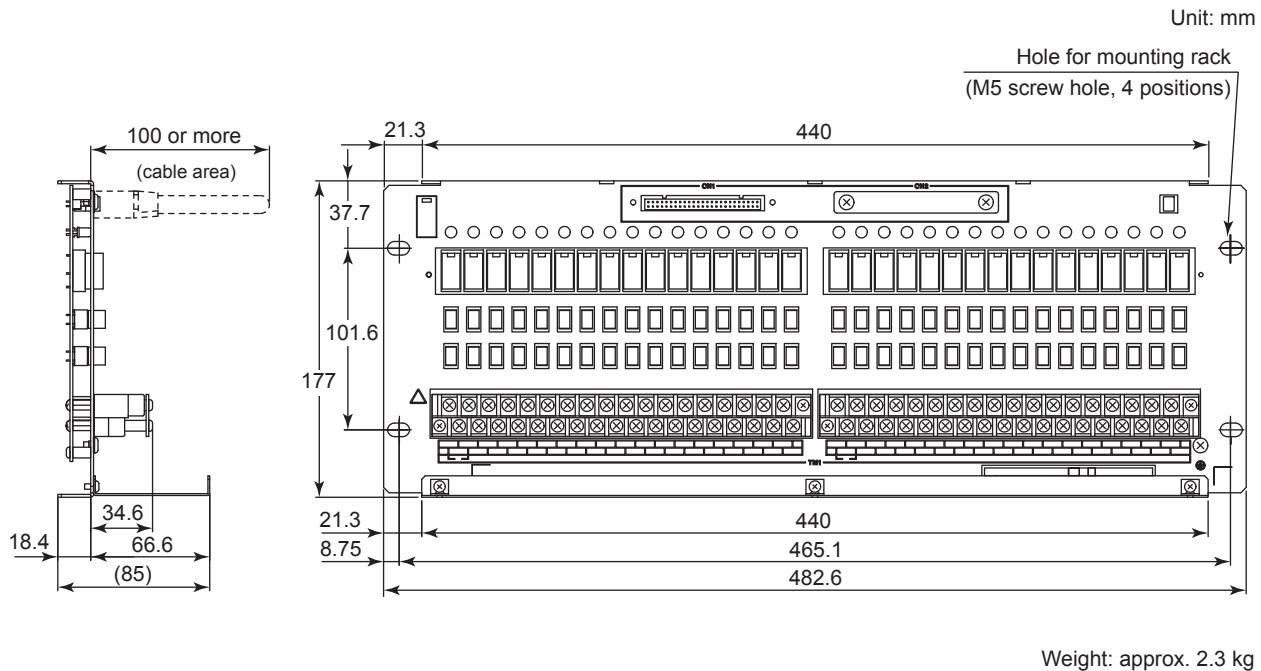
## Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

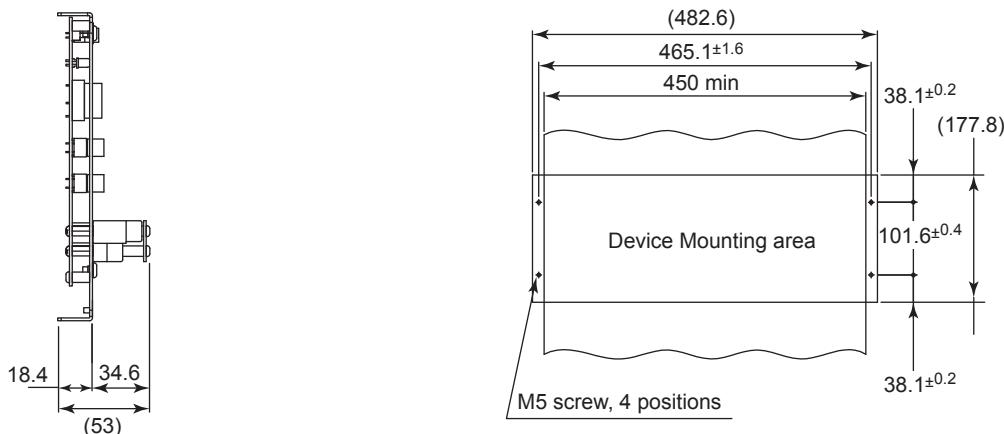
## ● ARM55W

Other than /BR4



When option code is "/NTRY"

Rack Mounting Dimension



F19E.ai

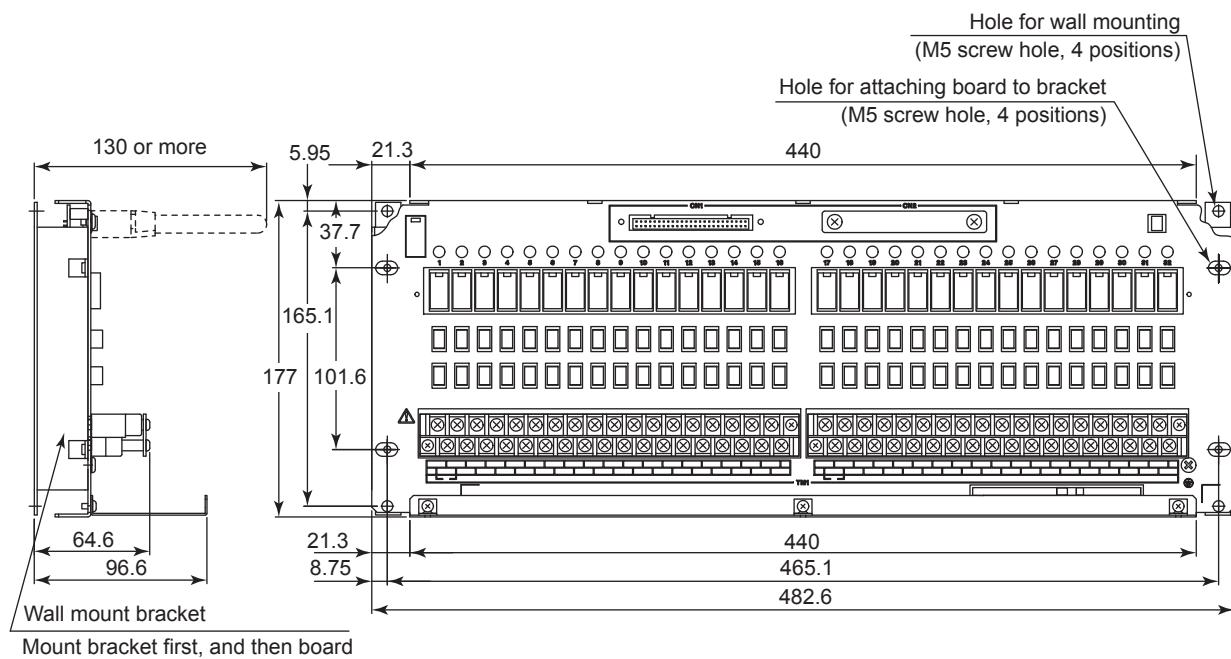
### Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## For /BR4

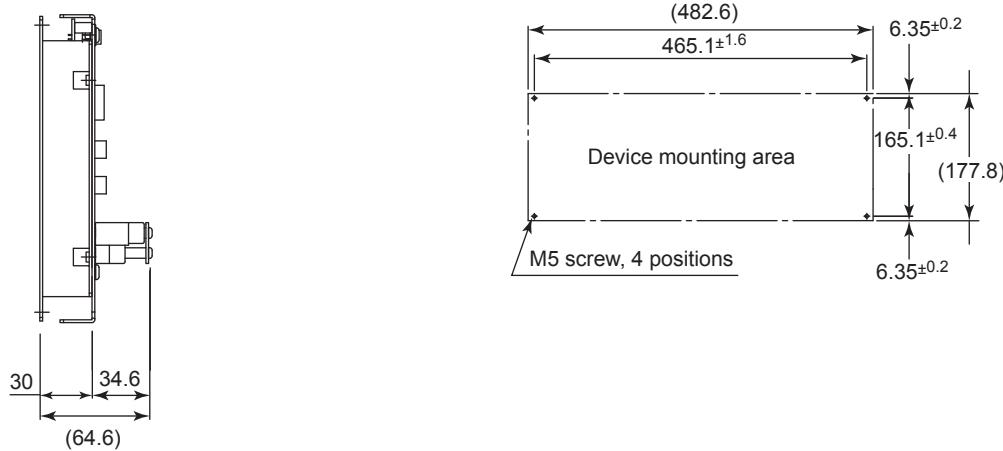
Unit: mm



Weight: approx. 2.6 kg

When option code is "/NTRY"

Wall Mounting Dimension



F20E.ai

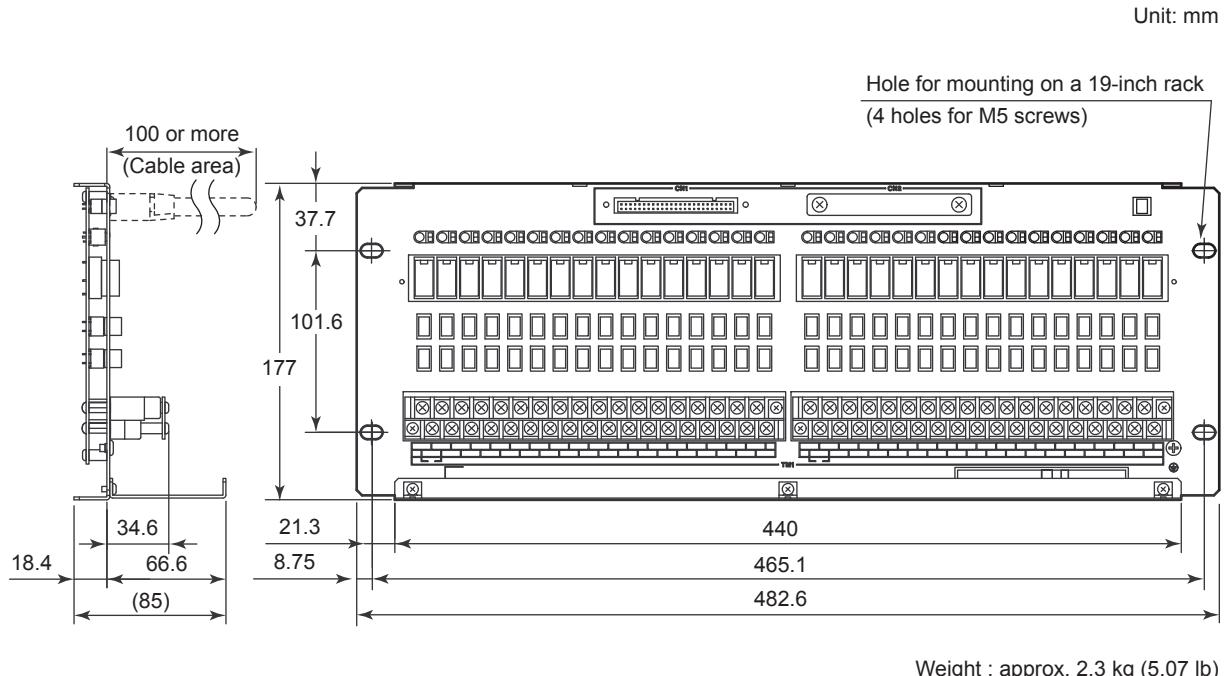
## Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

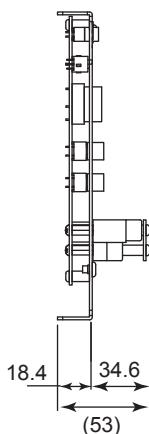
The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## ● ARM55T

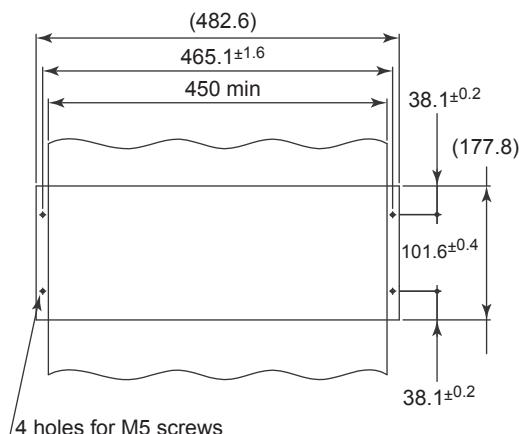
Other than /BR4



When option code is "/NTRY"



Rack mounting dimension



F27E.ai

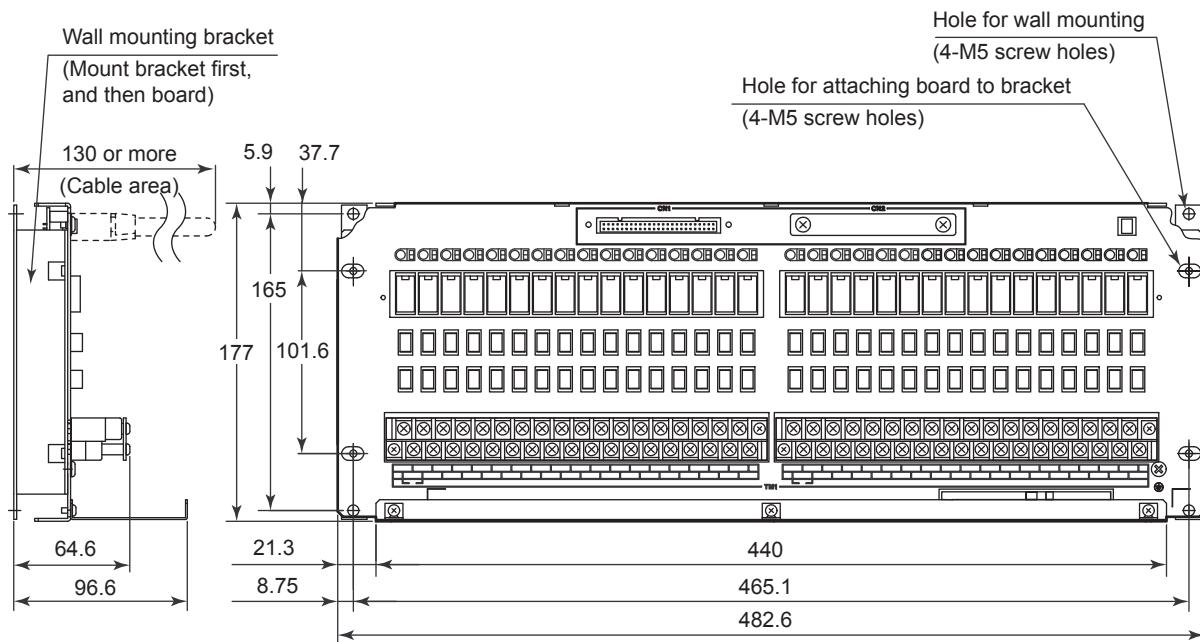
## Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## For /BR4

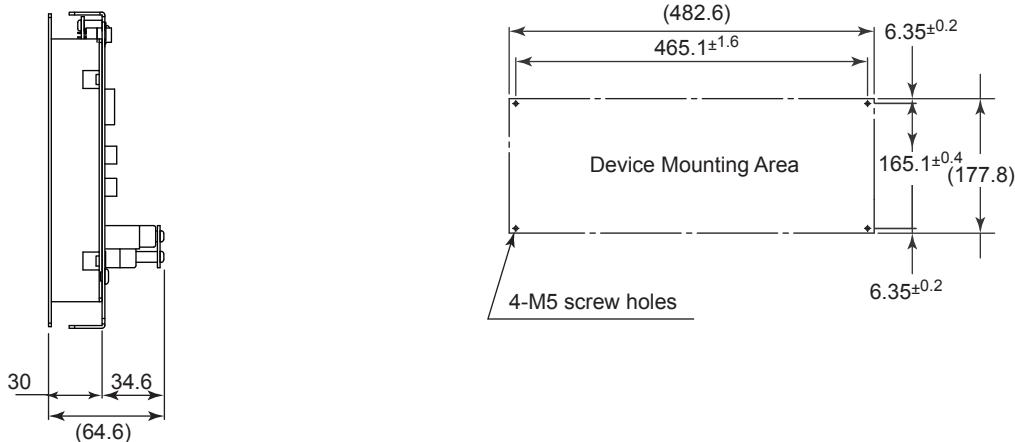
Unit: mm



Weight : approx. 2.6 kg (5.73 lb)

When option code is "/NTRY"

Wall mounting dimension



F28E.ai

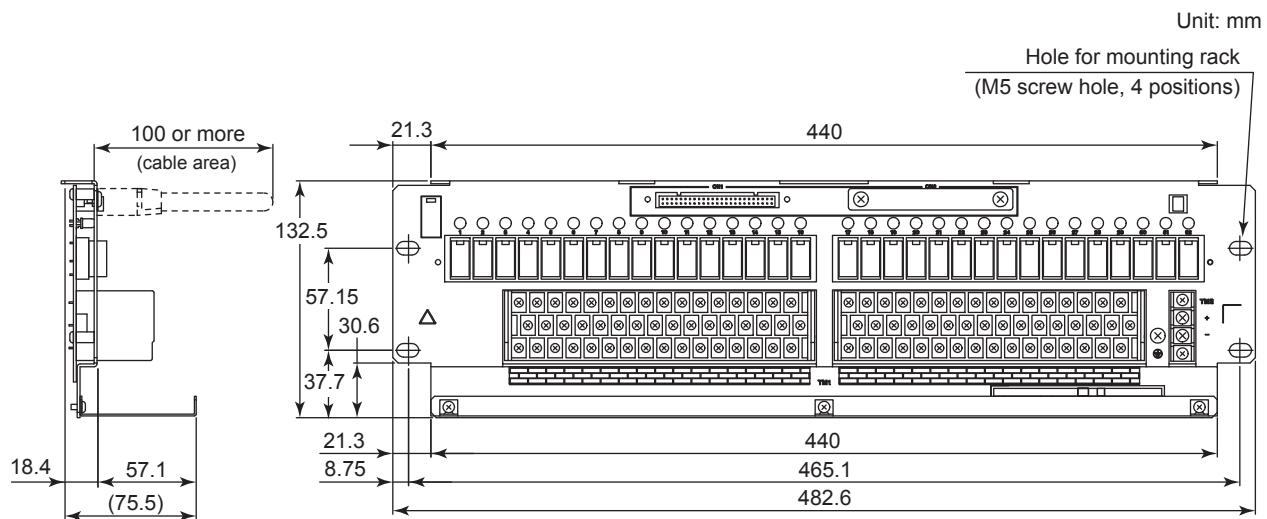
## Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## ● ARM55C

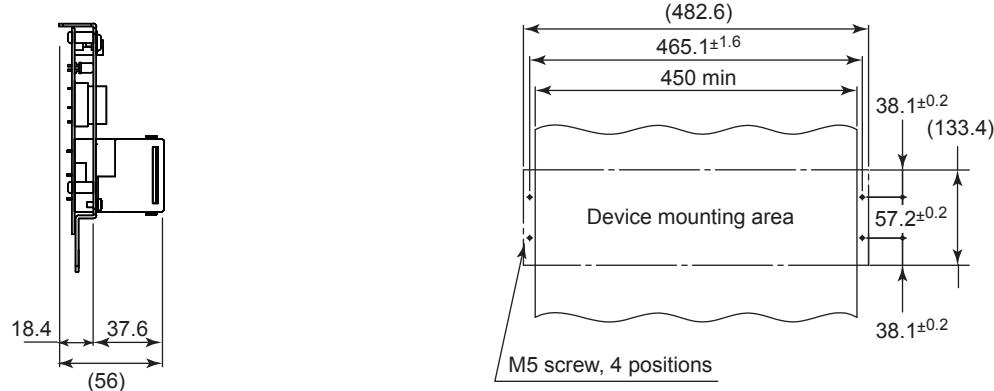
### Other than /BR3



Weight: approx. 2.0 kg

When option code is "/NTRY"

Rack Mounting Dimension



F21E.ai

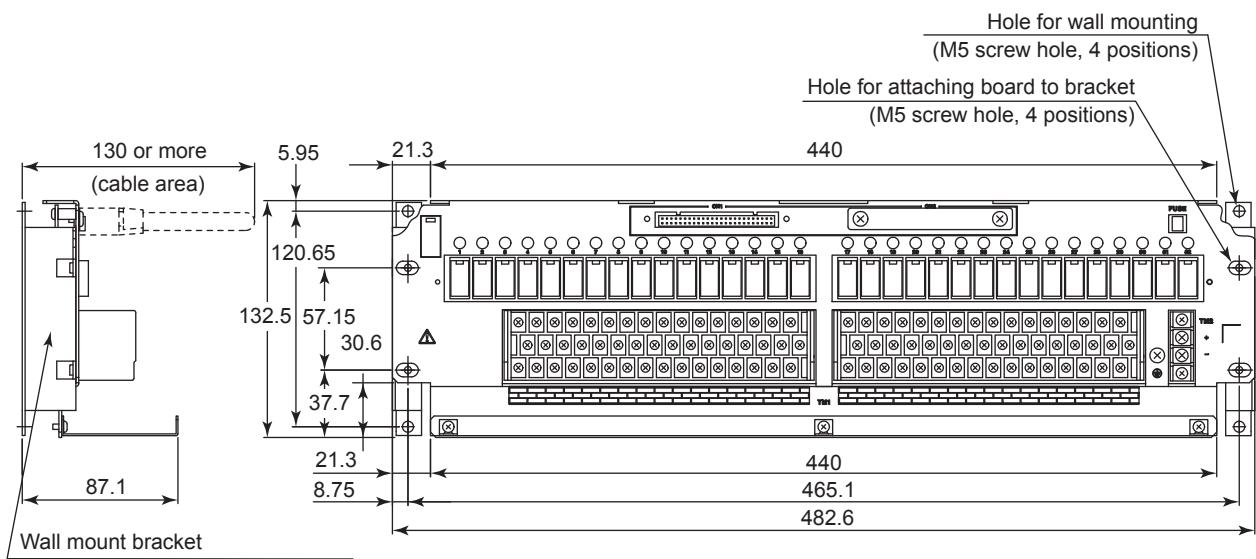
#### Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

## For /BR3

Unit: mm

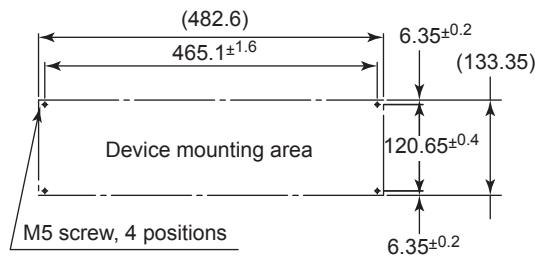
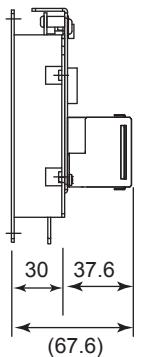


Mount bracket first, and then board

Weight: approx. 2.2 kg

When option code is "/NTRY"

Wall Mounting Dimension



F22E.ai

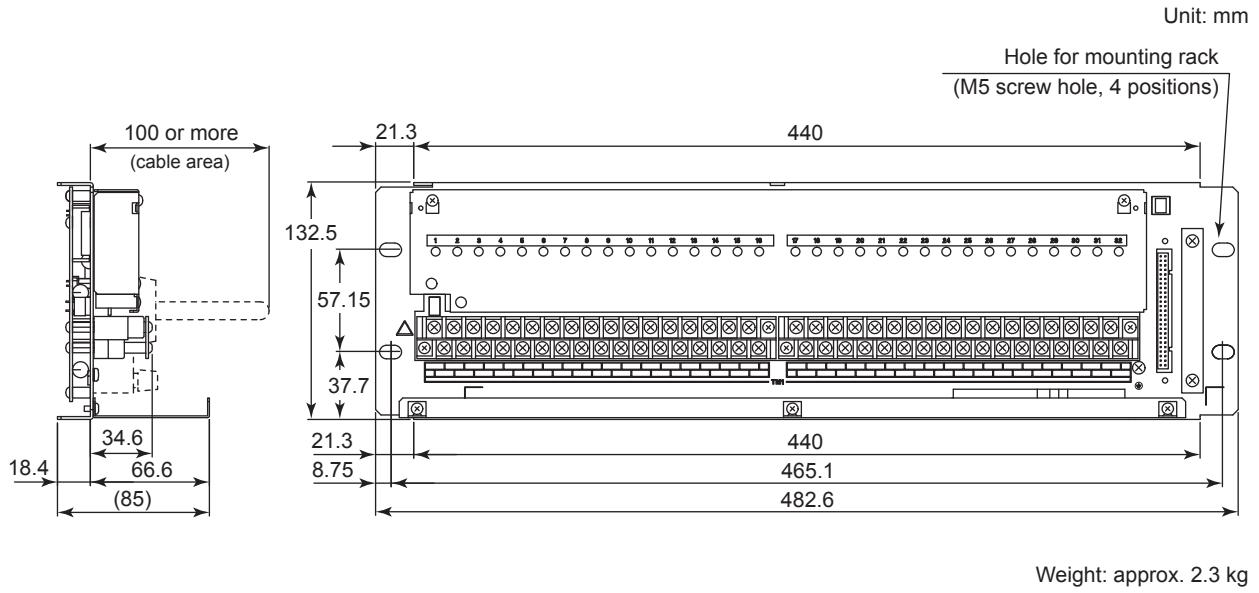
## Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

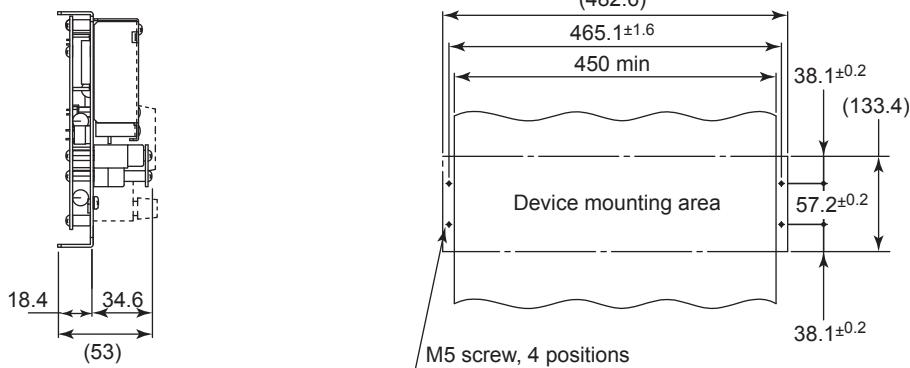
## ● ARS15B

## Other than /BR3



When option code is "/NTRY"

## Rack Mounting Dimension



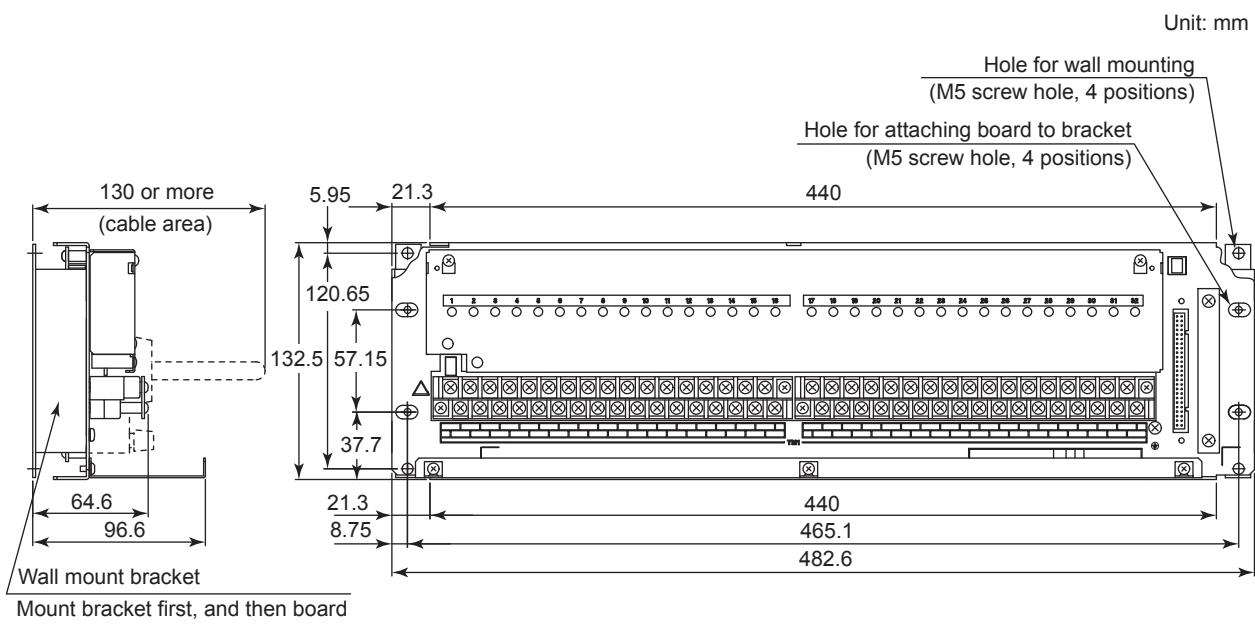
F23E.ai

## Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

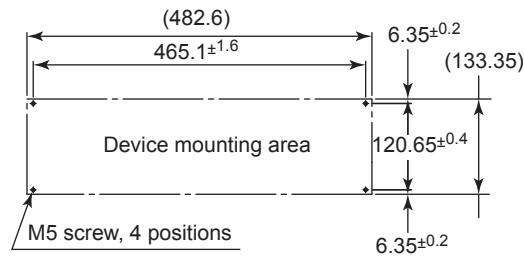
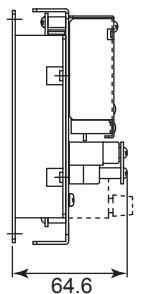
## For /BR3



Weight: approx. 2.5 kg

When option code is "/NTRY"

Wall Mounting Dimension



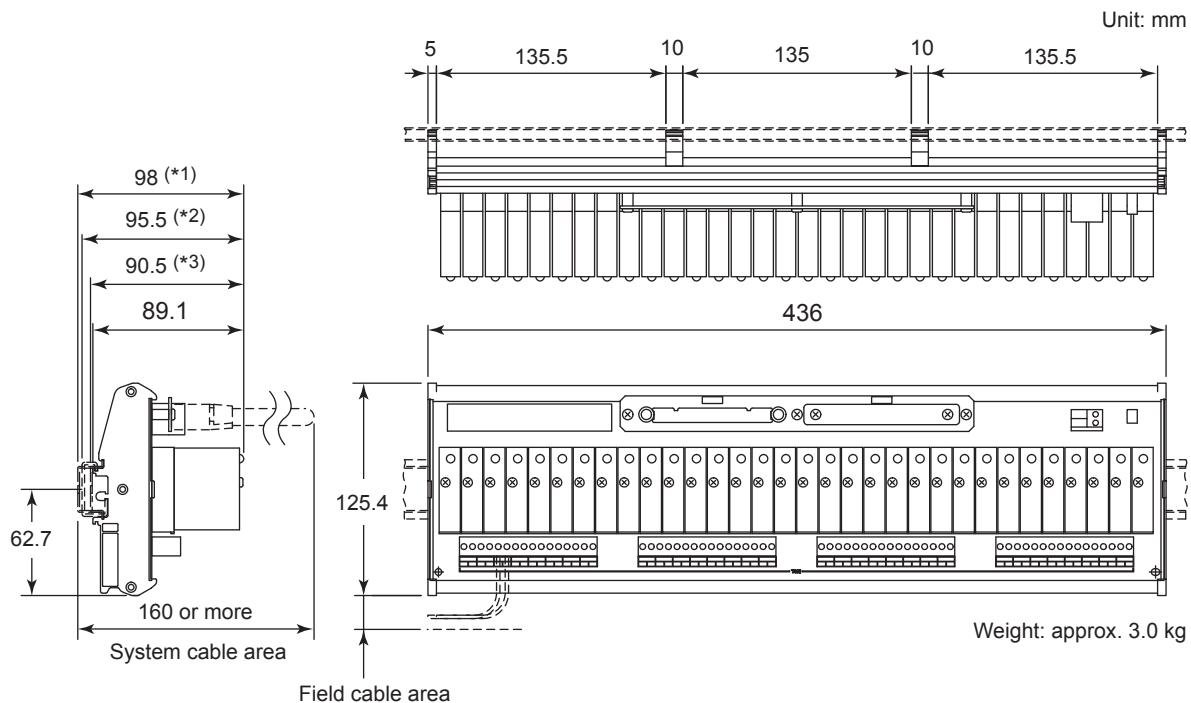
F24.ai

## Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

● ARS15M, ARS55M



F25E.ai

Nominal Tolerances :

Nominal tolerance is  $\pm 0.8$  mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is  $\pm 1.5$  mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

\*1: Applicable DIN Rail; TH35-15, EN 50022

\*2: Applicable DIN Rail; G32, EN 50035

\*3: Applicable DIN Rail; TH35-7.5, EN 50022

## ■ MODELS AND SUFFIX CODES

### ● Mechanical Relay Board

		Description
<b>Model</b>	ARM15A	Mechanical Relay Board (32 Dry Contact Inputs)
<b>Suffix Codes</b>	-0	Always 0
	0	19-inch Rack Mountable
	0	Basic Type
<b>Option Codes</b>	/BR3	Wall Mount Bracket
	/NTRY	Without cable tray

		Description
<b>Model</b>	ARM55D	Mechanical Relay Board (32 Dry Contact Outputs)
<b>Suffix Codes</b>	-0	Always 0
	0	19-inch Rack Mountable
	0	Basic Type
<b>Option Codes</b>	/BR3	Wall Mount Bracket
	/NTRY	Without cable tray

		Description
<b>Model</b>	ARM55W	Mechanical Relay Board (32 Wet Contact Outputs)
<b>Suffix Codes</b>	-0	Always 0
	0	19-inch Rack Mountable
	0	Basic Type
<b>Option Codes</b>	/BR4	Wall Mount Bracket
	/NTRY	Without cable tray

		Description
<b>Model</b>	ARM55T	Mechanical Relay Board (32 Wet Contact Outputs with Switch)
<b>Suffix Codes</b>	-0	Always 0
	0	19-inch Rack Mountable
	0	Basic Type
<b>Option Codes</b>	/BR4	Wall Mount Bracket
	/NTRY	Without cable tray

		Description
<b>Model</b>	ARM55C	Mechanical Relay Board (32 Dry Contact Outputs)
<b>Suffix Codes</b>	-0	Always 0
	0	19-inch Rack Mountable
	0	Basic Type
<b>Option Codes</b>	/BR3	Wall Mount Bracket
	/NTRY	Without cable tray

## ● Solid State Relay Board

Description		
Model	ARS15B	Solid State Relay Board (32 Solid State Inputs)
Suffix Codes	-5	For 48 V DC input
	-6	110 V DC input
	0	19-inch Rack Mountable
	0	Basic Type
Option Codes	/BR3	Wall Mount Bracket
	/NTRY	Without cable tray

Description		
Model	ARS15M	Solid State Relay Board (32 Solid State Inputs)
Suffix Codes	-1	For 100 V AC input module (32-point type)
	-2	For 220 V AC input module (32-point type)
	-3	For 10 - 30 V DC input module (32-point type)
	1	DIN Rail Mountable
	0	Basic Type

Description		
Model	ARS55M	Solid State Relay Board (32 Solid State outputs)
Suffix Codes	-1	For 100 V AC output module (32-point type)
	-2	For 220 V AC output module (32-point type)
	-3	For 5-60 V DC output module (32-point type)
	1	DIN Rail Mountable
	0	Basic Type

## ■ APPLICABLE STANDARDS

Refer to the GS "Integrated Production Control System CENTUM VP System Overview" (GS 33J01A10-01EN).

## ■ ORDERING INFORMATION

Specify models, suffix codes, and option codes when ordering.

## ■ TRADEMARK ACKNOWLEDGMENT

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