# 3-10. DIDO controller [PAC-YG66DCA]

The DIDO controller is used in combination with a AE-C400E/EW-C50E to operate general-purpose equipment, as well as to monitor operating and error status. It is equipped with two sets of standard terminals (Channels 1 and 2), and four sets of expansion connectors for the input/output terminals. Expansion cable is optional.

Operation can be monitored or performed from the AE-C400E LCD.

In addition, this device includes a function that interlocks M-NET devices such as indoor units, general equipment, etc.

#### **External Dimensions**



	<ul> <li>Usage Restrictions</li> <li>Mitsubishi Electric does not take financial responsibility for damages caused by issues beyond our control or special circumstances (predicable or unpredictable); and secondary or accidental damages, and damages to other objects. We also do not take financial responsibility for opportunities lost as a result of device failure, or electrical power failure at the end-user site.</li> <li>Mitsubishi Electric does not take financial responsibility caused by end-users' requests including, but not limited to, device testing, startup, readjustment, and replacement.</li> <li>Do not use this device in disaster prevention, security, or "critical to life" applications.</li> <li>It is recommended to provide an external switch for general-purpose equipment in case of a failure of the DIDO controller or a peripheral part.</li> </ul>
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## 1. Specifications

### (1). Device Specifications

ltem	Rating and Specification						
Power Supply	24 VDC ±10%: 5 W (*1)					Screw terminal block (M3) (*8)	
Interface	M-NET communication			17 to 30 VDC (*2)		Screw terminal block (M3) (*8)	
	Standard	Output (*3)	ON/OFF, (ON) (*4)	Non-voltage Relay contact (2)	Applied load MAX: 24 VDC, 5 W MIN: 5 VDC, 2 mW * AC loads cannot be connected.	Screw terminal block (M3.5) (*8)	
				Transistor (2)	24 VDC 40 mA or less (*5)	Screwless terminal block	
			(OFF) (*4)	Non-voltage Relay contact (2)	Applied load MAX: 24 VDC, 5 W MIN: 5 VDC, 2 mW * AC loads cannot be connected.	Screw terminal block (M3.5) (*8)	
				Transistor (2)	24 VDC 40 mA or less (*5)	Screwless terminal block	
		Input	ON/OFF	Non-voltage a contact (2 each)	24 VDC 1 mA or less (*6)	Screwless terminal block	
			Error/Normal				
	Expansion	Output	ON/OFF, (ON) (*4) (OFF) (*4)	Transistor (4 each)	24 VDC 40 mA or less (*5)	9 pin connector	
		Input	ON/OFF Error/Normal	24 VDC input (4 each)	24 VDC 1 mA or less (*7)	9 pin connector	
	Output Pulse Width			1s ± 30 ms	1s±30 ms		
Interlock Function	Interlock M-NET devices and output contacts according to status of input contacts. (*8)						
	Temperature -			Operating temperature range	0 to 40°C[32°F to 104°F]		
Environment Conditions				Storage temperature range	-20 to 60°C[-4°F to 140°F]		
	Humidity			30 to 90%RH (no condensation	condensation)		
Dimensions	200 (W) × 120 (H) × 45 (D) mm / 77/8 (W) × 43/4 (H) × 125/32 (D) in						
Weight	0.6 kg / 1 <sup>3</sup> /8 lbs						
Time Backup During Power Failure	In the event of power failure or shut-off, the internal capacitor will continue to track time for approximately one week. (The internal capacitor takes about 24 hours to fully charge; a replacement battery is not necessary.)						
Installation Environment	Inside the metal control board (indoors) * Use this product in a hotel, a business office environment or similar environment.						

\*1: For details, refer to "1-(2). Parts Purchased Separately".

\*2: Supply electric power from a power unit for the transmission line or an outdoor unit.

Furthermore, the power consumption factor of the M-NET circuitry of this device is "1/4".

\*3: Non-voltage Relay contact or transistor is available for output. Only one can be used at a time.

\*4: () is in the case of a pulse.

\*5: The output is open collector type. Power must be supplied from an external power source to the output circuit of this device.

\*6: Power is supplied from this device to the external contacts.

\*7: Power must be supplied from an external power source.

\*8: M3 and M3.5 are sizes of the screw on the terminal block (ISO metric screw thread).

The number indicates the screw diameter (mm).



#### <Restrictions>

Maximum of 50 units (50 channels) per AE-C400E/EW-C50E

However, the number of units that can be connected to a AE-C400E/EW-C50E is up to 50 including the number of contacts used on this device, an indoor unit, LOSSNAY unit, etc.

Up to 6 contacts can be connected to the DIDO controller (1 M-NET address). One contact connected to this device is calculated as the equivalent of one indoor unit connected to AE-C400E/EW-C50E.

For example, 5 contacts connected to the DIDO controller are calculated as the equivalent of 5 indoor units connected to AE-C400E/ EW-C50E.

NOTE	<ul> <li>For the shield ground of the M-NET centralized control line, use single-point grounding at the power unit for the transmission line.</li> <li>However, when supplying electric power to the M-NET centralized control line from the R410A-Series outdoor unit<sup>11</sup> without using a power supply unit for the transmission line, use single-point grounding at the TB7 of that outdoor unit. *1: Except PUMY model.</li> <li>Furthermore, when connecting this device to the M-NET indoor control line, use grounding at the TB3 for each outdoor unit system.</li> <li>If the M-NET transmission line of this device is connected to the M-NET indoor control line and the outdoor unit is down because, for example, the power supply is interrupted for servicing or there is a failure, the DIDO controller cannot be controlled from the system controller.</li> <li>Controlling the ON/OFF remote controller is only possible with channel 1 of a standard terminal block.</li> <li>When AE-C400E/EW-C50E is connected, monitoring control can only be performed from AE-C400E/EW-C50E Web. Monitoring control cannot be performed from the ON/OFF remote controller.</li> </ul>
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