

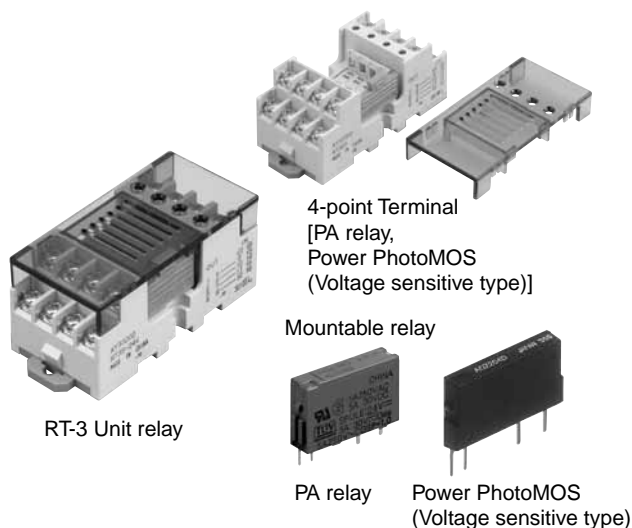
Panasonic

ideas for life

Slim, Space-saving,
4-point Unit Relay

RT-3 UNIT RELAY 4-POINT TERMINAL

[PA Relay type, Power PhotoMOS
(Voltage sensitive type)]



FEATURES

1. Slim, space-saving type (33 mm 1.299 inch wide) with four independent points on a base measuring 33 × 67 mm 1.299 × 2.638 inch. This contributes to a more compact control panel.
2. PA relays, which have high sensitivity Au clad twin contacts, are installed.
PA relays, 5 mm .197 inch wide, are installed. The PA relays feature high sensitivity (12 V type: 120 mW, 24 V type: 180 mW) and twin contacts with Au-cladding, which combine to ensure high reliability even with minute loads.
3. Can be mounted on a DIN rail or mounted directly (by screw).
4. Equipped with an LED display to allow easy confirmation of operation.
5. Possible to select relay for use in the 4-point terminal in accordance with load.

RoHS compliant

TYPES

1. RT-3 Unit relay

Contact arrangement	Rated input voltage	Part No.
1 Form A × 4	12 V DC	RT3S-12V
	24 V DC	RT3S-24V

Standard packing: Carton: 1 pc.; Case: 20 pcs.

Notes: 1. Cannot be equipped with Power PhotoMOS standard type relays. However, equipping with voltage-sensitive type of Power PhotoMOS relays is possible.
2. 5 V DC units are also available. Please inquire.
3. Please inquire about other contact arrangement.

2. 4-point Terminal

Type	Rated input voltage	Part No.
PA relay, Power PhotoMOS (Voltage sensitive type)	12, 24V DC	RT3BB

Standard packing: Carton: 1 pc.; Case: 20 pcs.

3. Mountable relays for 4-point Terminal (per relay, at 25°C 77°F, initial)

Product Name	Part No.
PA relay	PA1a-12V, PA1a-24V
Power PhotoMOS (Voltage sensitive type)	AQZ10*D (DC only)
	AQZ20*D (AC/DC dual use)

Note: Never install relays into this product other than those given above. Doing so will cause malfunction, breakdown, and breakdown of the connected product.

RATING

1. RT-3 Unit relay

1) Input ratings (per PA relay)

Part No.	Rated input voltage	Input current (at rated input voltage, 20°C 68°F)	Allowable variation of rated input voltage (-20 to +55°C -4 to +131°F)
RT3S-12V	12 V DC	Approx. 11.5 mA (Relay 10 mA + LED 1.5 mA)	12 V DC ± 10%
RT3S-24V	24 V DC	Approx. 10.5 mA (Relay 7.5 mA + LED 3 mA)	24 V DC ± 10%

RT-3 Unit Relay/4-point Terminal (PA Relay type)

2) PA relay coil specifications (reference value)

Relay part No.	Pick-up voltage (Initial) (at 20°C 68°F)	Drop-out voltage (Initial) (at 20°C 68°F)	Coil resistance (±10%) (at 20°C 68°F)	Nominal operating power
PA1a-12V	70%V or less of nominal voltage	5%V or more of nominal voltage	1,200 Ω	120 mW
PA1a-24V			3,200 Ω	180 mA

3) Output ratings (per PA relay)

Specification	Item	Specifications
Contact rating	Rated control capacity (resistive load)	3 A 250 V AC, 3 A 30 V DC
	Maximum allowable contact power (resistive load)	500 VA (AC), 60 W (DC)
	Maximum allowable contact voltage	250 V AC, 30 V DC
	Maximum allowable contact current	3 A
	Minimum load (reference value)	100 mV 100 μA
Expected life	Electrical (resistive load)	Min. 3 × 10 ⁴ : 3 A 250V AC Min. 3 × 10 ⁴ : 3 A 30V DC Min. 10 ⁵ : 2 A 250V AC Min. 10 ⁵ : 2 A 30V DC
	Mechanical	Min. 2 × 10 ⁷ (at 180 times/min.)

Note: During 4-point simultaneous operation, the rating per point is also as shown above.

2. 4-point Terminal

1) Input ratings (per relay)

Rated input voltage	Allowable variation of rated input voltage	Allowable input voltage
12, 24V DC	12V DC±10%, 24V DC±10%	0.2A

Note: The input voltage value above is the allowable current when no relay is installed. Please note that input voltage is determined by the type of relay installed.

2) Input rating when PA relay installed (per relay, at 20°C 68°F)

Type	Rated voltage input	Operate voltage (Initial)	Release voltage (Initial)	Input current (during application of rated input voltage)
PA1a-12V	12V DC	Max. 9.5V DC (Relay max. 8.4V + include diode max. 1.1V)	Min. 1.0V DC (Relay min. 0.6V + include diode min. 0.4V)	Approx. 11.5mA (Relay 10mA + LED 1.5mA)
PA1a-24V	24V DC	Max. 17.9V DC (Relay max. 16.8V + include diode max. 1.1V)	Min. 1.6V DC (Relay min. 1.2V + include diode min. 0.4V)	Approx. 10.5mA (Relay 7.5mA + LED 3mA)

3) Input rating when Power PhotoMOS voltage sensitive type installed (per relay, at 25°C 77°F)

Type	Rated voltage input	Operate voltage (Initial)	Release voltage (Initial)	Input current (during application of rated input voltage)
AQZ*0*D	12, 24V DC	Max. 5.1V DC (Relay max. 4.0V + include diode max. 1.1V)	Min. 1.2V DC (Relay min. 0.8V + include diode min. 0.4V)	Approx. 10.0mA (Relay 7.0mA + LED 3mA)

4) Output rating (per relay)

Allowable load voltage	Allowable load current
600V (DC), 600V (AC peak value)	3A

Note: The value above is the allowable value when no relay is installed.

Please note that limitations apply to the load voltage and current depending on the type of relay installed.

5) Output rating when PA relay installed (per relay, at 20°C 68°F)

Specification	Item	Specifications
Contact rating	Rated control capacity (resistive load)	3 A 250 V AC, 3 A 30 V DC
	Maximum allowable contact power (resistive load)	750 VA (AC), 90 W (DC)
	Maximum allowable contact voltage	250 V AC, 30 V DC
	Maximum allowable contact current	3 A
	Minimum load (reference value)	100 mV 100 μA
Expected life	Electrical (resistive load)	Min. 3×10 ⁴ : 3 A 250V AC, 3 A 30V DC Min. 10 ⁵ : 2 A 250V AC, 2 A 30V DC
	Mechanical	Min. 2×10 ⁷ (at 180 times/min.)

Note: During 4-point simultaneous operation, the rating per point is also as shown above.

6) Output rating when Power PhotoMOS voltage sensitive type installed (per relay, at 25°C 77°F)

Possible relays		Maximum load voltage (DC, AC peak value)	Continuous load current (DC, AC peak value)	Possible relays		Maximum load voltage (DC, AC peak value)	Continuous load current (DC, AC peak value)
Type	Part No.			Type	Part No.		
DC only	AQZ102D	60V	1.80A	AC, DC dual use	AQZ202D	60V	1.350A
	AQZ105D	100V	1.15A		AQZ205D	100V	0.900A
	AQZ107D	200V	0.55A		AQZ207D	200V	0.450A
	AQZ104D	400V	0.30A		AQZ204D	400V	0.225A

Notes: 1. During 4-point simultaneous operation, the rating per point is also as shown above.

2. Please use a load current that is within the range of the data given below in "REFERENCE DATA Load current vs. ambient temperature characteristics".

Panasonic代理商NAIS relay松下继电器代理商

全国统一热线4006-022-002

www.shuntu.net shunto@126.com

北京 010-68008911 深圳 0755-83656701 上海021-36588189 天津022-87803363

4点单元继电器 PA继电器型 relay松下继电器 NAIS正规授权代理商 Panasonic relay module
松下继电器模组，松下继电器模块组，

1. 实现了细长、省空间的 4点输出。机械继电器配备型。配置半导体继电器，维护自由。33mm的省空间细长型、独立 4点、底面积仅为 33×67mm。实现了控制盘与机器的小型化。
2. Au包层双芯接点的 PA继电器。搭载宽度 5mm的 PA继电器。对于 PA继电器而言，通过高灵敏度（12V型:120mW、24V型:180mW）的 Au包层双芯接点，即使微小负载也可具有较高的可靠度。
3. 可使用 DIN导轨安装，也可使用直接安装（螺丝安装）。
4. 附带 LED显示，使操作确认简易化。
5. 内置电涌吸收线路。内置线圈电涌的吸收线路。保护控制器的线路，防止误操作。
6. 继电器可通过附属于本体的拆除键简易拆除。
7. 为提高安全性，装有外部保护罩。

松下继电器官网的松下继电器型号:

订货产品号	型番	产品名
AY30000	RT3BB	4点单元继电器组 relay松下继电器模块 NAIS继电器
AY30001	RT3BB-12V	4点单元继电器组 relay松下继电器模块 NAIS继电器
AY30002	RT3BB-24V	4点单元继电器组 relay松下继电器模块 NAIS继电器
AY33001	RT3S-12V	4点单元继电器组 relay松下继电器模块 NAIS继电器
AY33002	RT3S-24V	4点单元继电器组 relay松下继电器模块 NAIS
AY33009	RT3S-5V	4点单元继电器组 relay松下继电器模块 NAIS
AY34001	RT3SP1-12V	4点单元继电器组 relay松下继电器模块 NAIS
AY34002	RT3SP1-24V	四点单元继电器组 relay松下继电器模块 NAIS
AY35001	RT3SP2-12V	四点单元继电器组 relay松下继电器模块 NAIS
AY35002	RT3SP2-24V	四点单元继电器组 relay松下继电器模块 NAIS

RT-3 Unit Relay/4-point Terminal (PA Relay type)

SPECIFICATIONS

RT-3 Unit relay/4-point Terminal

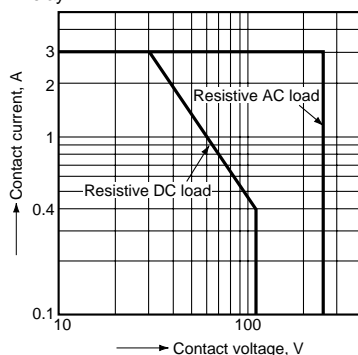
Item	Specifications	
Breakdown voltage	Between input and output	2,000 Vrms for 1 min.
	Between different terminals (between relays, both ways)	1,500 Vrms for 1 min.
Insulation resistance	Min. 100 MΩ (Using 500 V DC megger)	
Vibration resistance (destructive)	10 to 55 Hz at double amplitude 1 mm .039 inch	
Vibration resistance (functional)	10 to 55 Hz at double amplitude 1 mm .039 inch	
Shock resistance (destructive)	Min. 196 m/s ²	
Shock resistance (functional)	Min. 98 m/s ²	
Ambient temperature	-20°C to +55°C -4°F to +131°F	
Ambient humidity	35% to 85% R.H. (Not condensing)	
Storage temperature	-30°C to +80°C -22°F to +176°F (Not freezing and condensing)	
Terminal screw fasten torque	0.3 to 0.5 N·m	
Coil surge absorber	Diode (1A, 400V)	
Cross connection protecting diode	1.5 A, inverse voltage 40 V	
Unit weight	Approx. 100 g 3.53 oz	

Notes: 1. The value of breakdown voltage and insulation resistance is the initial one.
 2. Condensing occurs when the unit relay is exposed to sudden temperature change in a high temperature and high humidity atmosphere. This may cause some troubles like insulation failure of the socket or the print circuit board. Take care under this condition.
 3. Below 0°C 32°F, condensing water can freeze and cause socket contact failures and other problems. Take care under this condition.

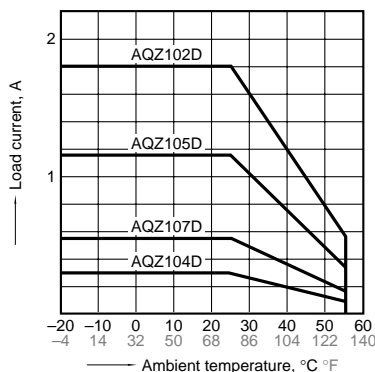
REFERENCE DATA

1. Maximum value for switching capacity (output)

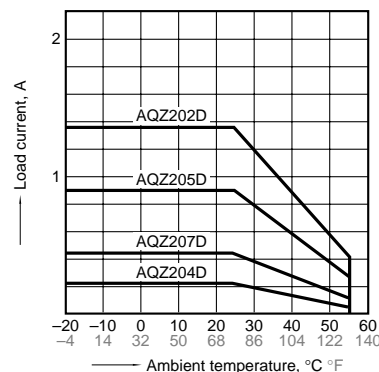
Per PA relay



2. Load current vs. ambient temperature characteristics (DC only)

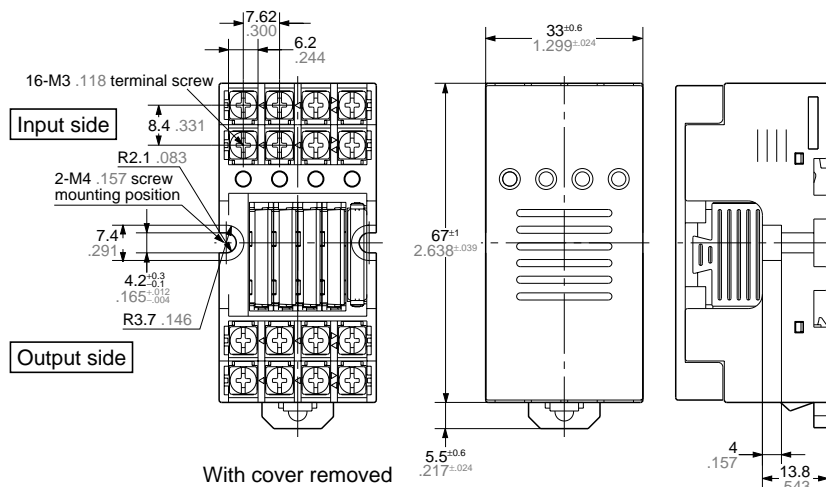


3. Load current vs. ambient temperature characteristics (AC/DC dual use)

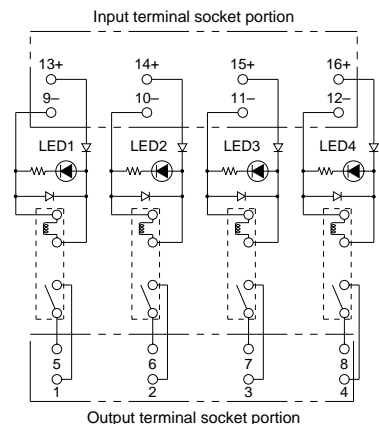


DIMENSIONS (mm inch)

1. External dimensions

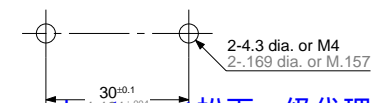


2. Schematic



Note: It is PA relay type.
 Cannot be equipped with Power PhotoMOS standard type relays. However, equipping with voltage sensitive type of Power PhotoMOS is possible.
 The polarities of the output terminal socket are for the DC only type (equipped with AQZ10*D)

3. Mounting hole pattern



General tolerance: $\pm 0.3 \pm 0.12$