

## Sold Separately

- 9.0 mm pitch jumper bar (JB-9.0-04L)

## Ordering Information

This is only for reference, the actual product does not support all combinations.  
For selecting the specified model, follow the Autonics website.

ASL - ① ② ③ - ④ ⑤

### ① Connector type

L: Screwless

### ④ Input logic

N: NPN

P: PNP

### ② Number or SSR

01: 1-point

### ⑤ Varistor

N: None

Y: Equipped

### ③ SSR type

MP0: AQZ202D [Panasonic]

SP0: AQG12124 [Panasonic]

SP1: AQG22124 [Panasonic]

SR0: G3MC-202P [Omron]

ST0: SN-24A01C [Fujitsu]

## Specifications

Model	ASL-L01MP0-□	ASL-L01SP0-□	ASL-L01SP1-□	ASL-L01SR0-□	ASL-L01ST0-□
Applied SSR <sup>(01)</sup>	AQZ202D [Panasonic]	AQG12124 [Panasonic]	AQG22124 [Panasonic]	G3MC-202P [Omron]	SN-24A01C [Fujitsu]
Output method	1a	1a	1a	1a	1a
Power supply	≤ 24 VDC± ±10%	≤ 24 VDC± ±10%	≤ 24 VDC± ±10%	≤ 24 VDC± ±10%	≤ 24 VDC± ±10%
Current consumption <sup>(02)</sup>	≤ 3 mA	≤ 18 mA	≤ 18 mA	≤ 18 mA	≤ 10 mA
SSR output rated spec. <sup>(03)</sup> <sup>(04)</sup>	24 VAC~ 50/60 Hz, 2.7A 24 VDC± 2.7A	75-240 VAC~ 50/60 Hz 1A	75-240 VAC~ 50/60 Hz 2A	24-240 VAC~ 50/60 Hz 2A	24-240 VAC~ 50/60 Hz 1A
Terminal type	Screwless				
Terminal pitch	9.0 mm (arranging over 2 units)				
Indicator	Operation indicator: blue				
Varistor	Equipped <sup>(05)</sup> / not equipped model				
Input logic	NPN / PNP model				
Material	Terminal block: PA66, CASE, BASE: PPS, conducting plate: brass				
Approval	CE UK ENEC ENEC ENEC ENEC ENEC				
Unit weight (packaged) <sup>(06)</sup>	≈ 19 g (≈ 130 g)	≈ 20 g (≈ 134 g)	≈ 22 g (≈ 140 g)	≈ 24 g (≈ 148 g)	≈ 21 g (≈ 136 g)

01) For the detailed information about each SSR, please refer to 'SSR' or data sheet from the manufacturer.

02) It is current consumption for a SSR including LED current.

03) This value is rated with resistive load, when the conditions of the temperature characteristic graph are satisfied.

04) When connecting loads to output part, please connect loads of same power type.

Connecting loads of different power type may cause safety issues.

05) Since the varistor type is for protecting the contact, it is recommended to use with an inductive load.

06) It is weight per product. The weight in parentheses is for 4 packing units including packing materials.

Insulation resistance	≥ 1,000 MΩ (500 VDC= megger)
Dielectric strength (coil-contact)	2,500 VAC~ 50/60 Hz for 1 minute
Dielectric strength (same polarity contact) <sup>(01)</sup>	1,000 VAC~ 50/60 Hz for 1 minute
Vibration	0.75 mm amplitude at frequency of 10 to 55 Hz in each X, Y, Z direction for 2 hours
Vibration (malfunction)	0.75 mm amplitude at frequency of 10 to 55 Hz in each X, Y, Z direction for 10 minutes
Shock	1,000 m/s <sup>2</sup> (≈ 100 G) in each X, Y, Z direction for 3 times
Shock (malfunction)	100 m/s <sup>2</sup> (≈ 10 G) in each X, Y, Z direction for 3 times
Ambient temperature	-15 to 55 °C, storage: -25 to 65 °C (no freezing or condensation)
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)
Protection structure	IP20 (IEC standard)

01) Varistor type is 300 VAC~.

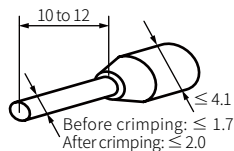
Applicable wire - solid <sup>(01)</sup>	Ø 0.6 to 1.25 mm
Applicable wire - stranded <sup>(01) (02)</sup>	AWG 22-18 (0.30 to 0.80 mm <sup>2</sup> )
Stripped length	8 to 10 mm

01) Use the cable of copper conductor in 60 °C temperature class.

02) When using the stranded wire, use End Sleeve (wire ferrule).

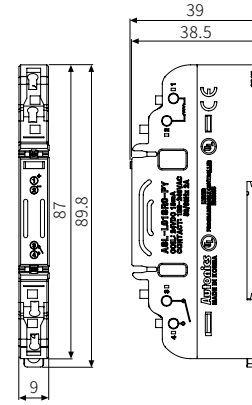
## Wire Ferrule Specifications

- Unit: mm, Use the UL approved wire ferrule.



## Dimensions

- Unit: mm, For the detailed drawings, follow the Autonics website.



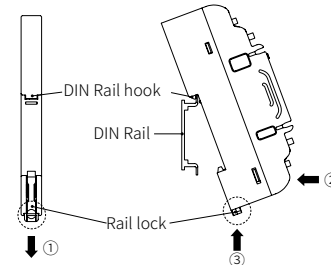
## Installation

### ■ DIN Rail

When installing the product, refer to the example to keep the distance between units.

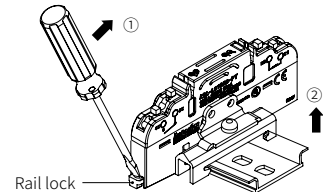
- Mounting

1. Pull the Rail lock on the rear of the product to the direction ①.
2. Hang DIN rail hook on the rear of the product onto DIN rail.
3. Push the product to the direction ②, and push the Rail lock to the direction ③ to fix onto the DIN rail.



- Removing

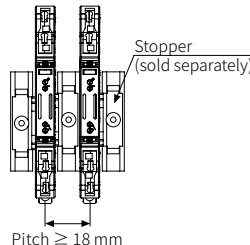
1. Insert a tool such as screwdriver into the hole of Rail lock.
2. Push the tool to the direction ① and pull the Rail lock.
3. Lift bottom of the product to the direction ② and remove the product from DIN rail.



### ■ Example

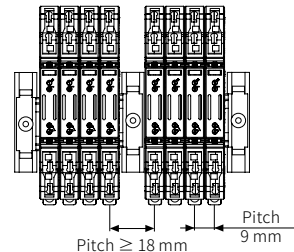
- 1 unit individual installation

Pitch between each SSR: ≥ 18 mm



- 4 units arranging installation

Pitch between each SSR: ≥ 9 mm



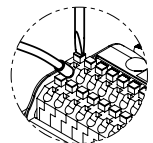
## Wiring

- Connecting

Insert the wire ferrule into the terminal hole.

- Removing

1. Put the (-) screwdriver at the groove on the clamp lever and press it.
2. Pull the cable to disassemble.

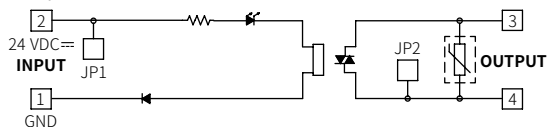


## Wire Connection

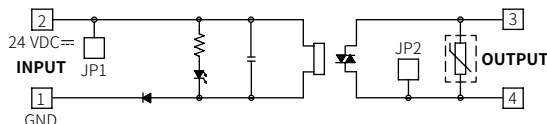
- [Symbol] is only for the varistor type.
- When mounting four products arrangement, Power/Load common can be done by inserting a jumper bar. Use four products with the same input logic.
- In case of POWER COMMON(NPN: + COM, PNP: -COM), the JP1 terminals of each product are connected.  
In case of LOAD COMMON, the JP2 terminals of each product are connected.

### ■ NPN

- MP0

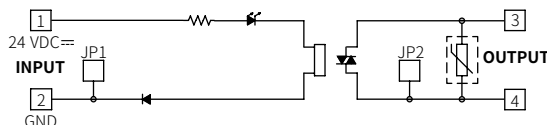


- SP0 / SP1 / SR0 / ST0

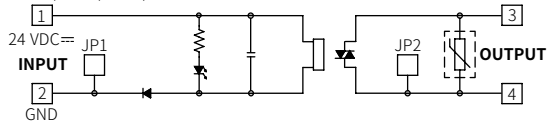


### ■ PNP

- MP0

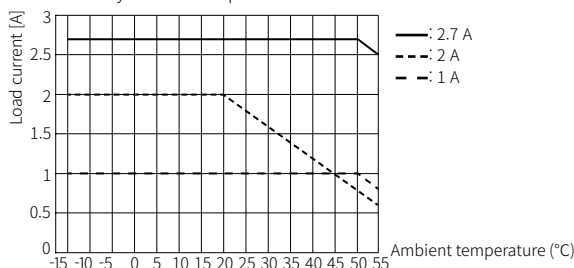


- SP0 / SP1 / SR0 / ST0

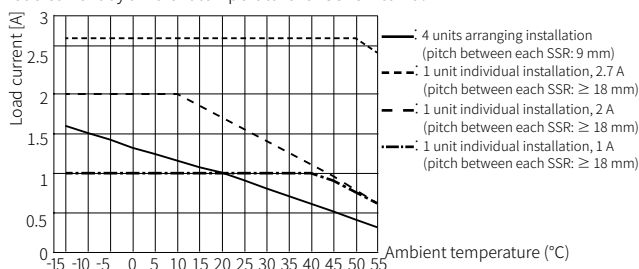


## Temperature Characteristic Graph

- Load current by ambient temperature for each rated current



- Load current by ambient temperature for SSRs interval

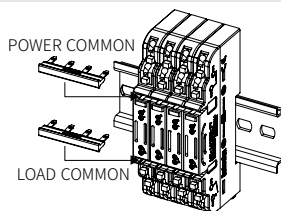
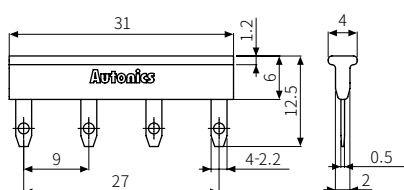


## 9.0 mm Pitch Jumper Bar (JB-9.0-04L)

It is example of mounting 4 units.

- POWER COMMON: insert the jumper bar in the jumper bar groove above the SSR.
- LOAD COMMON: insert the jumper bar in the jumper bar groove below the SSR.

- Dimensions



## SSR: AQZ202D [Panasonic]

### ■ Input

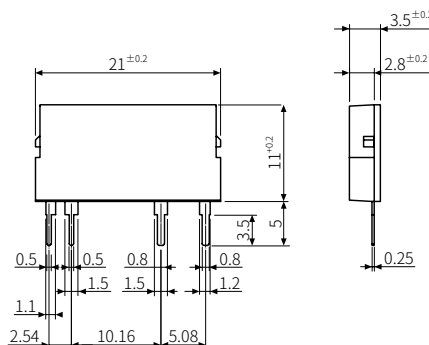
Rated voltage	Operate voltage	Release voltage	Input impedance
30 VDC≒	≥ 4 V	≤ 1.3 V	-

### ■ Output

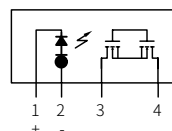
Manufacture	Panasonic
Contact arrangement	SPST-1a (N.O)
Load voltage range	60 VAC~ / DC≒ (Peak)
Max. load current	≤ 2.7 A
Min. load current	-
Non-repetitive surge current	9 A (Peak)
Output OFF leakage current	10 μA
Output ON on voltage	-
Insulation resistance	≥ 1,000 MΩ (500 VDC≒ megger)
Dielectric strength (contact-coil)	2,500 VAC~ 50/60 Hz for 1 minute
Operate time	≤ 10 ms
Release time	≤ 3 ms
Ambient temperature	-40 to 60 °C, storage: -40 to 100 °C (a non freezing or condensation environment)

### ■ Dimensions

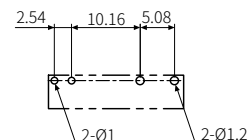
- unit: mm



- Circuit diagram (bottom view)



- PCB pattern



It was written based on the data provided by each manufacturer, but there is room for change, so be sure to check the manufacturer's data.

SSR: AQG12124 [Panasonic]

■ Input

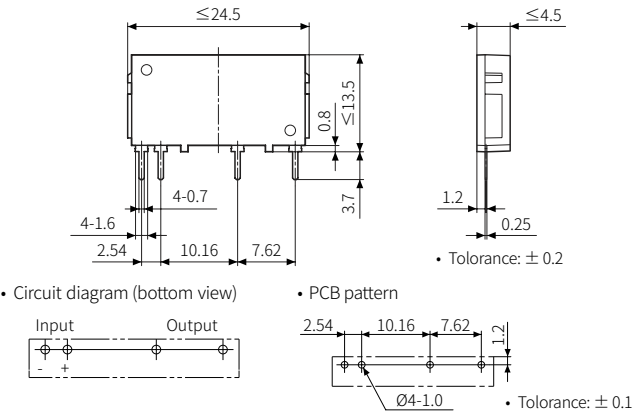
Rated voltage	Operate voltage	Release voltage	Input impedance
24 VDC $\pm$ 20 %	$\geq$ 19.2 VDC $\pm$	$\leq$ 1 V	$\approx$ 1.6 k $\Omega$

■ Output

Manufacture	Panasonic
Contact arrangement	SPST-1a (zero cross turn-on)
Load voltage range	75-240 VAC $\sim$ 50/60 Hz
Max. load current	1 A
Min. load current	20 mA
Non-repetitive surge current	8 A
Output OFF leakage current	1.5 mA (at 200 VAC $\sim$ 60 Hz)
Output ON on voltage	$\leq$ 1.6 V (at max. current input)
Insulation resistance	$\geq$ 1,000 M $\Omega$ (500 VDC $\pm$ megger)
Dielectric strength (contact-coil)	3,000 VAC $\sim$ 50/60 Hz for 1 minute
Operate time	1/2 cycle of voltage sine wave + 1 ms
Release time	1/2 cycle of voltage sine wave + 1 ms
Ambient temperature	-30 to 80 °C, storage: -30 to 100 °C (a non freezing or condensation environment)

■ Dimensions

• unit: mm



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SSR: AQG22124 [Panasonic]

■ Input

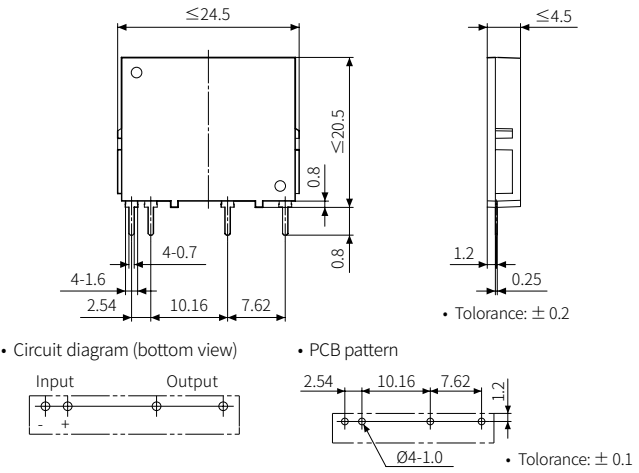
Rated voltage	Operate voltage	Release voltage	Input impedance
24 VDC $\pm$ 20 %	$\geq$ 19.2 VDC $\pm$	$\leq$ 1 V	$\approx$ 1.6 k $\Omega$

■ Output

Manufacture	Panasonic
Contact arrangement	SPST-1a (zero cross turn-on)
Load voltage range	75-240 VAC $\sim$ 50/60 Hz
Max. load current	2 A
Min. load current	20 mA
Non-repetitive surge current	30 A
Output OFF leakage current	1.5 mA (at 200 VAC $\sim$ 60 Hz)
Output ON on voltage	$\leq$ 1.6 V (at max. current input)
Insulation resistance	$\geq$ 1,000 M $\Omega$ (500 VDC $\pm$ megger)
Dielectric strength (contact-coil)	3,000 VAC $\sim$ 50/60 Hz for 1 minute
Operate time	1/2 cycle of voltage sine wave + 1 ms
Release time	1/2 cycle of voltage sine wave + 1 ms
Ambient temperature	-30 to 80 °C, storage: -30 to 100 °C (a non freezing or condensation environment)

■ Dimensions

• unit: mm



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## SSR: G3MC-202P [Omron]

### Input

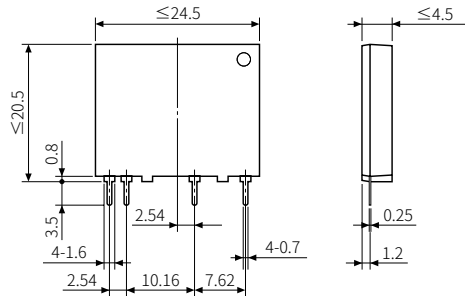
Rated voltage	Operate voltage	Release voltage	Input impedance
24 VDC $\pm$ 20 %	$\geq$ 19.2 VDC $\approx$	$\leq$ 1 V	$\approx$ 1.6 k $\Omega$ $\pm$ 20 %

### Output

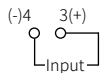
Manufacture	Panasonic
Contact arrangement	SPST-1a (zero cross turn-on)
Load voltage range	100-240 VAC $\sim$ 50/60Hz
Max. load current	2 A
Min. load current	-
Non-repetitive surge current	30 A
Output OFF leakage current	1.5 mA (at 200 VAC $\sim$ 60 Hz)
Output ON on voltage	$\leq$ 1.6 V (at max. current input)
Insulation resistance	$\geq$ 1,000 M $\Omega$ (500 VDC $\approx$ megger)
Dielectric strength (contact-coil)	2,500 VAC $\sim$ 50/60 Hz for 1 minute
Operate time	1/2 cycle of voltage sine wave + 1 ms
Release time	1/2 cycle of voltage sine wave + 1 ms
Ambient temperature	-30 to 80 °C, storage: -30 to 100 °C (a non freezing or condensation environment)
Weight	$\approx$ 2.5 g

### Dimensions

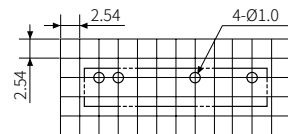
• unit: mm



• Circuit diagram (bottom view)



• PCB pattern



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## SSR: SN-24A01C [Fujitsu]

### Input

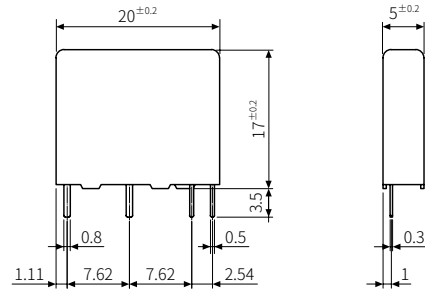
Rated voltage	Operate voltage	Release voltage	Input impedance
24 VDC $\pm$ 20 %	$\geq$ 80% of rated voltage	$\leq$ 1 V	2.2 k $\Omega$

### Output

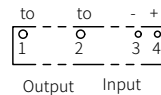
Manufacture	Fujitsu
Contact arrangement	SPST-1a (zero cross turn-on)
Load voltage range	24-240 VAC $\sim$
Max. load current	1 A
Min. load current	10 mA
Non-repetitive surge current	50 A
Output OFF leakage current	3.0 mArms (at 200 Vrms 60 Hz)
Output ON on voltage	1.2 Vrms
Insulation resistance	$\geq$ 1,000 M $\Omega$ (500 VDC $\approx$ megger)
Dielectric strength (contact-coil)	2,500 VAC $\sim$ 50/60 Hz for 1 minute
Operate time	1/2 cycle of voltage sine wave + 1 ms
Release time	1/2 cycle of voltage sine wave + 1 ms
Ambient temperature	-30 to 85 °C, storage: -40 to 100 °C (a non freezing or condensation environment)
Weight	$\approx$ 3.5 g

### Dimensions

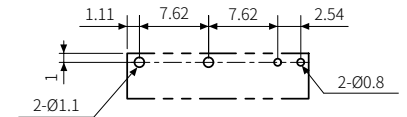
• unit: mm



• Circuit diagram (bottom view)



• PCB pattern



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