

Screwless Relay Terminal Block (4-point)



ABL Series CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

Features

- Selectable between independent, NPN (+ COM)/PNP (- COM) input, and load common output with use of jumper bar
- High tensile force and easy wiring with one-touch screwless type terminal
- Easily check of operation status with operation indicator (blue)
- DIN rail mount and screw mount methods
- Relay protection with the cover
- Easy relay replacement with the relay ejector

Ordering Information

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

ABL - L 04 ① - U ②

① Relay type

PA: MATSUSHITA(Panasonic) PA
 TN: TAKAMISAWA(Fujitsu) NYP
 PQ: MATSUSHITA(Panasonic) PQ
 R6: OMRON G6B

② Varistor

N: None
 Y: Equipted

Product Components

- Product
- Instruction manual
- PA, TN: 6.0 mm pitch jumper bar (JB-6.0-04L), Two Way Ejector
- PQ, R6: 10.2 mm pitch jumper bar (JB-10.2-04L)

Specifications

Model	ABL-L04PA-□	ABL-L04TN-□	ABL-L04PQ-□	ABL-L04R6-□
Applied relay ⁰¹⁾	APAN3124 [MATSUSHITA (Panasonic)]	NYP24W-K [TAKAMISAWA (Fujitsu)]	PQ1a-24V [MATSUSHITA (Panasonic)]	G6B-1174P-FD-US [OMRON]
Output method	1a	1a	1a	1a
Power supply	≤ 24 VDC≐ ± 10 %	≤ 24 VDC≐ ± 10 %	≤ 24 VDC≐ ± 10 %	≤ 24 VDC≐ ± 10 %
Current consumption ⁰²⁾	≤ 8 mA	≤ 8 mA	≤ 20 mA	≤ 20 mA
Rated load voltage & current ^{03) 04)}	250 VAC~ 50/60 Hz 3A, 30 VDC≐ 3 A	250 VAC~ 50/60 Hz 3A, 30 VDC≐ 3 A	250 VAC~ 50/60 Hz 3A, 30 VDC≐ 5 A	250 VAC~ 50/60 Hz 3A, 30 VDC≐ 5 A
Terminal type	Screwless	Screwless	Screwless	Screwless
Terminal pitch	5.0 mm	5.0 mm	10.2 mm	10.2 mm
Indicator	Operation indicator: blue		Operation indicator: blue	
Varistor	Equipted ⁰⁵⁾ / not equipted model		Equipted ⁰⁵⁾ / not equipted model	
Input logic	NPN / PNP selectable with jumper bar		NPN / PNP selectable with jumper bar	
Material	Terminal block: PA66, CASE, BASE: PPS, conducting plate: brass		Terminal block: PA66, CASE, BASE: MPPPO, conducting plate: brass	
Approval	CE ENEC EAC		CE ENEC EAC	
Unit weight (packaged)	≈ 72 g (≈ 125 g)	≈ 75 g (≈ 128 g)	≈ 94 g (≈ 150 g)	≈ 88 g (≈ 144 g)

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

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

03) This value is rated with resistive load.

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.

Insulation resistance	≥ 1,000 MΩ (500 VDC≐ megger)
Dielectric strength (coil-contact)	PA, TN, R6: 3,000 VAC~ 50/60 Hz for 1 minute PQ: 4,000 VAC~ 50/60 Hz for 1 minute
Dielectric strength (same polarity contact) ⁰¹⁾	PA, PQ, R6: 1,000 VAC~ 50/60 Hz for 1 minute TN: 750 VAC~ 50/60 Hz for 1 minute
Vibration	PA, TN: 0.75 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours PQ, R6: 1.5 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours
Vibration (malfunction)	PA, TN: 0.75 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 minutes PQ, R6: 1.5 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 minutes
Shock	1,000 m/s ² (≈ 100 G) in each X, Y, Z direction for 3 times
Shock (malfunction)	100 m/s ² (≈ 10 G) in each X, Y, Z direction for 3 times
Ambient temperature	-15 to 55 °C, storage: -25 to 65 °C (a non freezing or condensation environment)
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (a non freezing or condensation environment)
Protection structure	IP20 (IEC standard)

01) Varistor type is 300 VAC~.

Applicable wire - solid ⁰¹⁾	∅ 0.6 to 1.25 mm
Applicable wire - stranded ^{01) 02)}	AWG 22-18 (0.30 to 0.80 mm ²)
Stripped length	8 to 10 mm

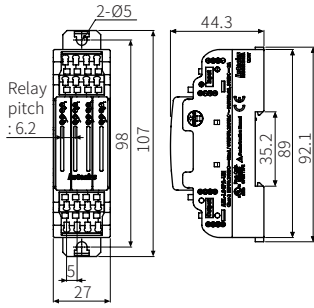
01) Use the cable of copper conductor in 60 °C temperature class.

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

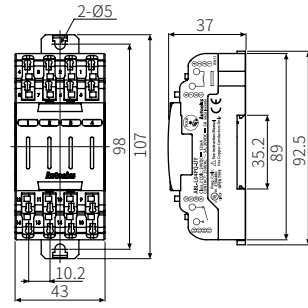
Dimensions

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

■ PA, TN



■ PQ, R6



Sold Separately

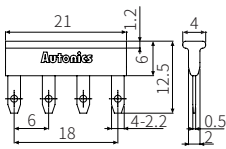
- PA, TN: 6.0 mm pitch jumper bar (JB-6.0-04L)
- PQ, R6: 10.2 mm pitch jumper bar (JB-10.2-04L)

Jumper Bar

Remove the protection cover and use the jumper bar accordingly.

- NPN (+ COM): insert the jumper bar to see NPN mark below terminals 8, 7, 6, 5.
- PNP (- COM): insert the jumper bar to see PNP mark below terminals 8, 7, 6, 5.
- LOAD COMMON: insert the jumper bar above terminals 12, 11, 10, 9.

■ 6.0 mm pitch jumper bar JB-6.0-04L (for PA, TN)



■ 10.2 mm pitch jumper bar JB-10.2-04L (for PQ, R6)

