

Autonics RELAY TERMINAL BLOCK ABS Series INSTRUCTION MANUAL



Thank you very much for selecting Autonics products. For your safety, please read the following before using.

■ Safety Considerations

※Please observe all safety considerations for safe and proper product operation to avoid hazards.

※⚠ symbol represents caution due to special circumstances in which hazards may occur.

⚠ Warning Failure to follow these instructions may result in serious injury or death.

⚠ Caution Failure to follow these instructions may result in personal injury or product damage.

⚠ Warning

- 1. Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.
2. Do not use the unit in the place where flammable/explosive/corrosive gas, high humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.
3. Do not connect, repair, or inspect the unit, remove connector, or change Relay (SSR) while connected to a power source.
4. Do not disassemble or modify the unit.

⚠ Caution

- 1. Use the unit within the rated specifications.
2. Use a dry cloth to clean the unit, and do not use water or organic solvent.
3. Keep the product away from metal chip, dust, and wire residue which flow into the unit.
4. Do not use the product when a screw of terminal is loosened.

■ Précautions pour la sécurité.

- ※Après avoir lu ce guide, s'il vous plaît, placez-le dans un lieu où vous pouvez récemment le trouver.
※Précaution: Blessure ou danger peuvent se produire dans des conditions particulières.
⚠Avertissement L'inaccomplissement des instructions peut provoquer des blessures graves.
⚠Précaution Le produit peut être endommagé ou de provoquer des blessures si les consignes ne sont pas respectées.

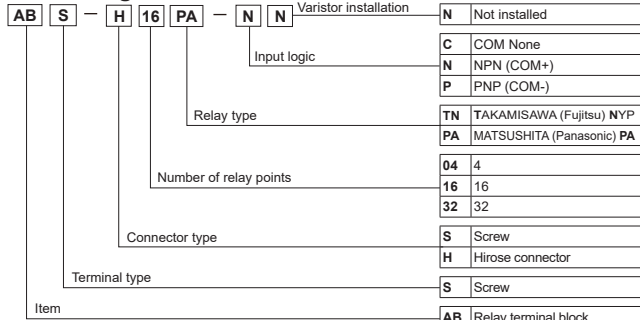
⚠ Avertissement

- 1. Utilisez le produit seulement après avoir relié un double dispositif de sécurité pour les instruments qui ont un grand effet pour le corps humain et la propriété, comme sont les dispositifs d'énergie atomique, mets en oeuvre Médecine, de véhicules, Rails, aéronefs, Brûleurs ou produits de sécurité.
2. Ne pas réparer ou vérifier le produit tout alimenté.
3. Utilisez le produit avec l'environnement comme il est décrit dans le manuel. Évitez le lieu d'émission de gaz corrosifs, gaz inflammables, incorporation température, haute humidité, vibrations, choc, etc.
4. Ne pas démonter et modifier cet appareil. S'il vous plaît nous contacter si cela est nécessaire.

⚠ Précaution

- 1. Cette unité ne doit pas être utilisée à l'extérieur.
2. S'il vous plaît respecter les spécifications nominales.
3. Dans nettoyer l'appareil, n'utilisez pas d'eau ou de solvants organiques. Et utiliser un chiffon sec.
4. Ne pas laisser de poussière pénétrer l'unité.

■ Ordering Information



※The above specifications are subject to change and some models may be discontinued without notice. ※Be sure to follow cautions written in the instruction manual and the technical descriptions (catalog, website).

■ Specifications

Table with 4 columns: Model, Power supply, Rated load voltage & current, Current consumption, Output type, Applicable relay, No. of relay points, No. of connector pins, Indicator, Applicable wire, Insulation resistance, Dielectric strength, Vibration, Shock, Environment, Material, Tightening torque, Accessory, and Approval.

- ※1: Relay contact capacity for resistive load.
※2: The current consumption including LED current by one relay.
※3: The current consumption including power LED current of '※1'.
※4: For TN type (Fujitsu relay) is 750VAC.
※5: ABS-H32 □ □ -NN(PN) does not supply jumper bar.
※6: Except 30VDC of rated load voltage for cULus items.
※7: The weight includes packaging. The weight in parentheses is for unit only.
※Environment resistance is rated at no freezing or condensation.

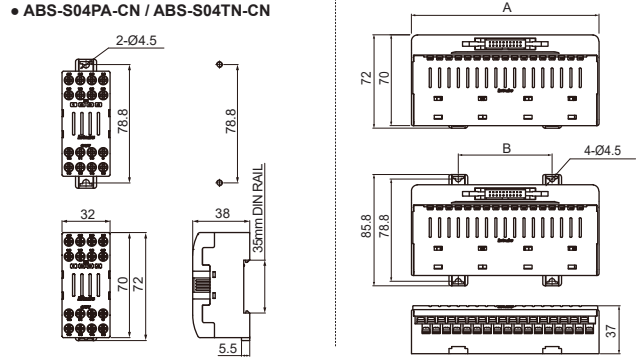
● Relay

Table with 7 columns: Model, Rated voltage, Must operate voltage, Must release voltage, Rated current, Coil resistance, Power consumption. Rows include APAN3124, NYP24W-K, and ABS-H32.

2)Contact specifications

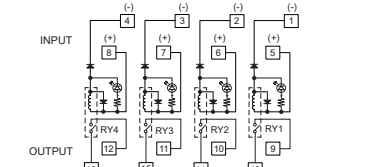
Table with 4 columns: Manufacturer, Model, Contact, Rating, Electrical characteristics, Mechanical characteristics, Expected life, Environment, and Unit weight. Rows include MATSUSHITA (Panasonic), TAKAMISAWA (Fujitsu), and NYP24W-K.

■ Dimensions



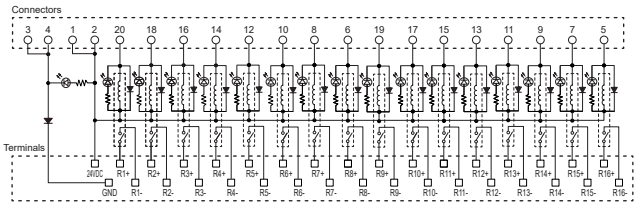
■ Connections

● ABS-S04PA-CN / ABS-S04TN-CN

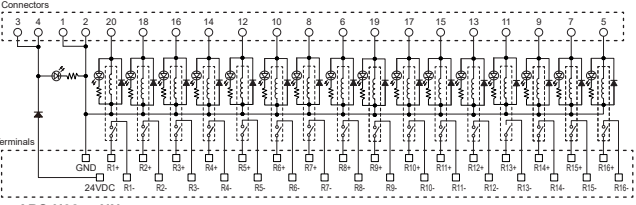


● ABS-H16 □ -NN

※Hirose connector socket : HIF3BA-20PA-2.54DSA

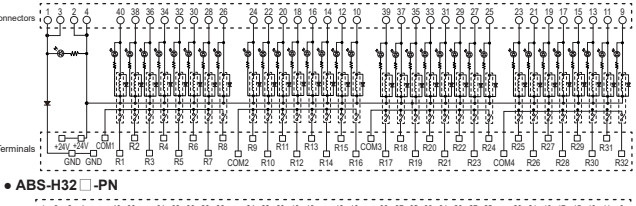


● ABS-H16 □ -PN

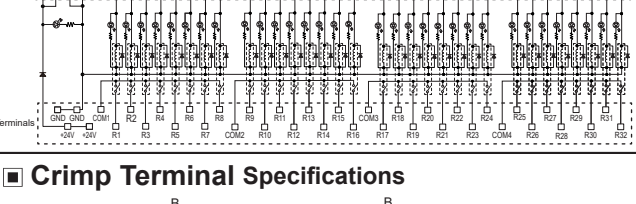


● ABS-H32 □ -NN

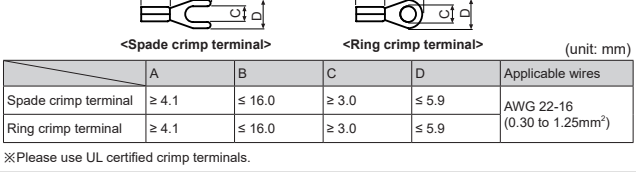
※Hirose connector model No. : HIF3BA-40PA-2.54DSA



● ABS-H32 □ -PN



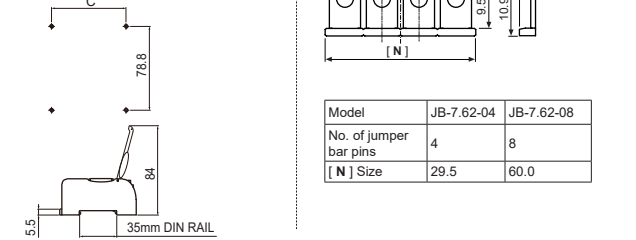
■ Crimp Terminal Specifications



● ABS-H16PA-□N / ABS-H16TN-□N

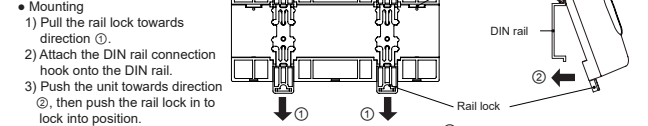
Table with 2 columns: Model, Dimensions (A, B, C). Rows include ABS-H16 and ABS-H32.

● Jumper bar (sold separately)



■ Installation

1. Mounting and Removal at DIN rail

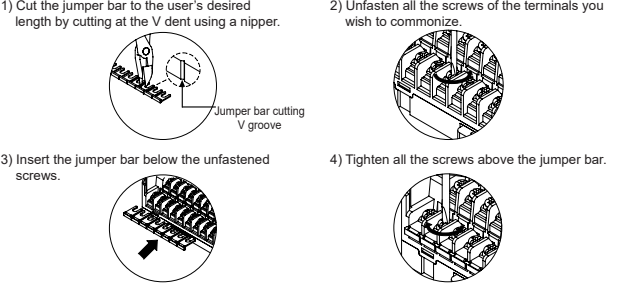


- Mounting
1) Pull the rail lock towards direction ①.
2) Attach the DIN rail connection hook onto the DIN rail.
3) Push the unit towards direction ②, then push the rail lock in to lock into position.

2. Mounting with screws

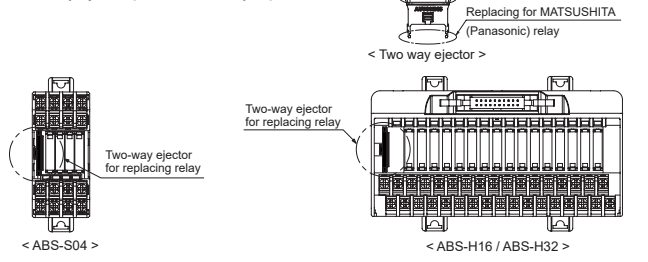
- 1) The unit can be mounted on panels using the rear rail locks.
2) M4×15mm spring washer screws are recommended for installation. When using flat washers, use Ø6mm diameter washers. The tightening torque should be between 7.14 to 10.2kgf·cm (0.7 to 1.0N·m).

■ Installing Jumper Bars

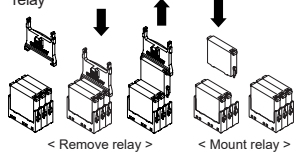


■ Replacing Relays

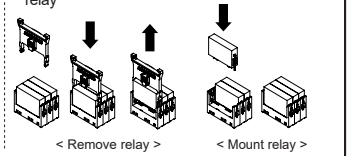
● Two way ejector position for relay replacement



● Removal and insert TAKAMISAWA (Fujitsu) relay



● Removal and insert MATSUSHITA (Panasonic) relay



※Relay sockets are compatible with both TAKAMISAWA (Fujitsu) relay, NYP24W-K, and MATSUSHITA (Panasonic) relay, PA1a-24V.

■ Caution during Use

- 1. Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents.
2. Check the polarity of power or COMMON before connecting PLC or other controllers.
3. Do not touch the unit immediately after the load power is supplied or cut. It may cause burn by high temperature.
4. 24VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.
5. Wire as short as possible and keep away from high voltage lines or power lines, to prevent surge and inductive noise.
6. This unit may be used in the following environments.
① Indoors (in the environment condition rated in 'Specifications')
② Altitude max. 2,000m
③ Pollution degree 2
④ Installation category II

■ Major Products

- Photoelectric Sensors, Fiber Optic Sensors, Door Sensors, Door Side Sensors, Area Sensors, Proximity Sensors, Pressure Sensors, Rotary Encoders, Connector/Sockets, Switching Mode Power Supplies, Control Switches/Lamps/Buzzers, I/O Terminal Blocks & Cables, Stepper Motors/Drivers/Motion Controllers, Graphic/Logic Panels, Field Network Devices, Laser Marking System (Fiber, CO2, Nd: YAG).
Temperature Controllers, Temperature/Humidity Transducers, SSRs/Power Controllers, Counters, Timers, Panel Meters, Tachometer/Pulse (Rate) Meters, Display Units, Sensor Controllers.

Autonics Corporation http://www.autonics.com

HEADQUARTERS: 18, Bansong-ro 513 beon-gil, Haeundae-gu, Busan, South Korea, 48002 TEL: 82-51-519-3232 E-mail: sales@autonics.com