

Autonics

INTERFACE TERMINAL BLOCK

AFS Series

INSTRUCTION MANUAL



Thank you for choosing our Autonics product.
Please read the following safety considerations before use.

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

- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.** (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.) Failure to follow this instruction may result in personal injury, economic loss or fire.
- 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.** Failure to follow this instruction may result in explosion or fire.
- Do not connect, repair, or inspect the unit, or remove connector while connected to a power source.** Failure to follow this instruction may result in fire or electric shock.
- Do not disassemble or modify the unit.** Failure to follow this instruction may result in fire or electric shock.

Caution

- Use the unit within the rated specifications.** Failure to follow this instruction may result in fire or product damage.
- Use dry cloth to clean the unit, and do not use water or organic solvent.** Failure to follow this instruction may result in fire or electric shock.
- Keep the product away from metal chip, dust, and wire residue which flow into the unit.** Failure to follow this instruction may result in fire or product damage.
- Do not use the product when a screw of terminal is loosened.** Failure to follow this instruction may result in fire or product damage.

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

- 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 œuvre Médecine, de véhicules, Rails, aéronefs, Brûleurs ou produits de sécurité.** L'inaccomplissement peut causer des incendies, lésions personnelles ou dommages à la propriété.
- Ne pas réparer ou vérifier le produit tout alimenté.** L'inaccomplissement peut provoquer un incendie ou des décharges électriques.
- 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.** L'inaccomplissement peut provoquer un incendie ou une explosion.
- Ne pas démonter et modifier cet appareil. S'il vous plaît nous contacter si cela est nécessaire.** L'inaccomplissement pourrait causer des décharges électriques, incendies, lésions personnelles ou dommages à la produit.

Précaution

- Cette unité ne doit pas être utilisé à l'extérieur.** Peut raccourcir le cycle de vie du produit ou causer un choc électrique.
- S'il vous plaît respecter les spécifications nominales.** L'inaccomplissement peut raccourcir le cycle de vie du produit et provoquer un incendie.
- Dans nettoyer l'appareil, n'utilisez pas d'eau ou de solvants organiques. Et utiliser un chiffon sec.** L'inaccomplissement peut donner lieu des décharges électriques ou des dommages au produit.
- Ne pas laisser de poussière pénétrer l'unité.** Cela pourrait provoquer un incendie ou un dysfonctionnement.

Ordering Information

Model	Item	Terminal side	Controller side	The number of connector pin
AFS-H20	Interface terminal block	Screw	Hirose connector	20-pin
AFS-H40				40-pin
AFS-H50				50-pin

Terminal Specifications

(unit: mm)

	A	B	C	D	Applicable wire
Spade terminal	≥4.1	≤16.0	≥3.0	≤5.9	AWG 22-16
Ring terminal	≥4.1	≤16.0	≥3.0	≤5.9	(0.30 to 1.25mm ²)

※ Use the UL certified terminal.

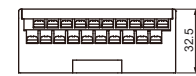
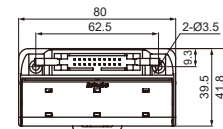
Specifications

Model	AFS-H20	AFS-H40	AFS-H50
Rated voltage	≤125VDC~, 125VAC~ 50/60Hz		
Rated current	≤1A		
The number of connector pin	20-pin	40-pin	50-pin
The number of terminal	20	40	50EA
Terminal pitch	7.0mm		
Applicable wires	AWG22-16 (0.30 to 1.25mm ²)		
Insulation resistance	≥1,000MΩ (at 500VDC megger)		
Dielectric strength	600VAC 50/60Hz for 1 min		
Vibration	0.75mm amplitude at frequency of 10 to 55Hz (for 1 min) in each X,Y,Z direction for 2 hours		
Shock	150m/s ² (approx. 15G) in each X, Y, Z direction for 3 times		
Environ	Ambient temp. -15 to 55°C, storage: -25 to 65°C		
-ment	Ambient humi. 35 to 85%RH, storage: 35 to 85%RH		
Material	Case: MPPO, terminal pin: brass		
Tightening torque	0.5 to 0.6 N·m		
Approval			
Weight*1	Approx. 103g (approx. 71g)	Approx. 175g (approx. 133g)	Approx. 211g (approx. 163g)

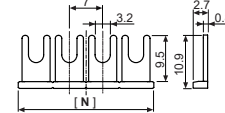
※ 1: The weight includes packaging. The weight in parenthesis is for unit only.
※ Environment resistance is rated at no freezing or condensation.

Dimensions

AFS-H20

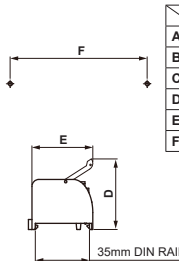
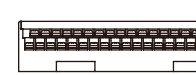
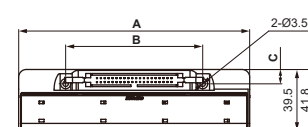


Jumper bar (sold separately)



Model	JB-7-04	JB-7-10
The number of Jumper bar pin	4	10
[N] size	27.5	69.5

AFS-H40 / AFS-H50



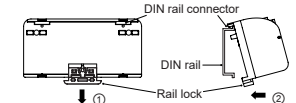
	AFS-H40	AFS-H50
A	150	184
B	89	104
C	9.3	8.8
D	45.8	45.8
E	39.7	39.7
F	89	104

※ The above homage 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).

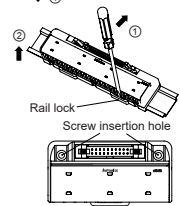
Installation

1. Mounting to and removing from DIN rail.

- Mounting
 - 1) Push rail lock to the direction "O".
 - 2) Hook DIN rail connector onto DIN rail.
 - 3) Push the unit down to the direction "⊙" and then push up the rail lock to the unit body.



- Removing
 - 1) Insert a screwdriver into hole of rail lock and pull the lock out to the direction "⊙".
 - 2) Removing the unit by pulling to the direction "⊙".



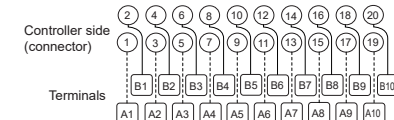
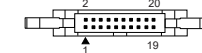
2. Mounting to panel

- 1) This unit is able to mount on the panel with mounting holes next to Hirose connector.
- 2) It is recommended to use M3×30mm of spring washer screws and to use flat washers which are diameter Ø6. The tightening torque should be between 0.5 and 0.7N·m.

Wire Connections

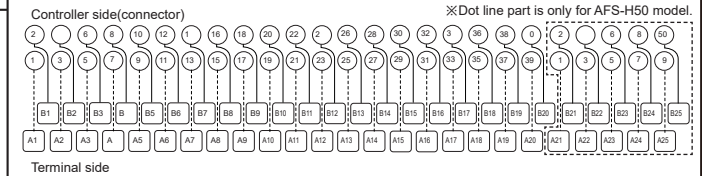
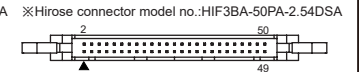
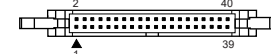
AFS-H20

※ Hirose connector model no.: HIF3BA-20PA-2.54DSA



AFS-H40 / AFS-H50

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



Cautions during Use

- Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents.
- Keep away from high voltage lines or power lines to prevent inductive noise. In case installing power line and input signal line closely, use line filter or varistor at power line and shielded wire at input signal line. Do not use near the equipment which generates strong magnetic force or high frequency noise.
- 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)
- Laser welding/cutting system
- Temperature controlers
- Temperature/Humidity transducers
- SSR/Power controllers
- Counters
- Timers
- Panel meters
- Tachometer/Pulse (Rate)meters
- Display units
- Sensor controllers