

● CONDITIONS OF USE FOR THE PRODUCT ●

- Mitsubishi programmable controller ("the PRODUCT") shall be used in conditions:
 - where any problem, fault or failure occurring in the PRODUCT, if any, shall not lead to any major or serious accident; and
 - where the backup and fail-safe function are systematically or automatically provided outside of the PRODUCT for the case of any problem, fault or failure occurring in the PRODUCT.
- The PRODUCT has been designed and manufactured for the purpose of being used in general industries. MITSUBISHI SHALL HAVE NO RESPONSIBILITY OR LIABILITY (INCLUDING, BUT NOT LIMITED TO ANY AND ALL RESPONSIBILITY OR LIABILITY BASED ON CONTRACT, WARRANTY, TORT, PRODUCT LIABILITY) FOR ANY INJURY OR DEATH TO PERSONS OR LOSS OR DAMAGE TO PROPERTY CAUSED BY THE PRODUCT THAT ARE OPERATED OR USED IN APPLICATION NOT INTENDED OR EXCLUDED BY INSTRUCTIONS, PRECAUTIONS, OR WARNING CONTAINED IN MITSUBISHI'S USER, INSTRUCTION AND/OR SAFETY MANUALS, TECHNICAL BULLETINS AND GUIDELINES FOR THE PRODUCT. ("Prohibited Application")
 Prohibited Applications include, but not limited to, the use of the PRODUCT in:
 - Nuclear Power Plants and any other power plants operated by Power companies, and/or any other cases in which the public could be affected if any problem or fault occurs in the PRODUCT.
 - Railway companies or Public service purposes, and/or any other cases in which establishment of a special quality assurance system is required by the Purchaser or End User.
 - Aircraft or Aerospace, Medical applications, Train equipment, transport equipment such as Elevator and Escalator, Incineration and Fuel devices, Vehicles, Manned transportation, Equipment for Recreation and Amusement, and Safety devices, handling of Nuclear or Hazardous Materials or Chemicals, Mining and Drilling, and/or other applications where there is a significant risk of injury to the public or property.

Notwithstanding the above, restrictions Mitsubishi may in its sole discretion, authorize use of the PRODUCT in one or more of the Prohibited Applications, provided that the usage of the PRODUCT is limited only for the specific applications agreed to by Mitsubishi and provided further that no special quality assurance or fail-safe, redundant or other safety features which exceed the general specifications of the PRODUCTS are required. For details, please contact the Mitsubishi representative in your region.

Model	A1STA32-U-E
Model Number	13JE66
IB(NA)66500-F (1112)MEE	

● SAFETY PRECAUTIONS ●

(Read these precautions before using this product.)

Before using this product, please read this manual and the relevant manuals carefully and pay full attention to safety to handle the product correctly. These precautions apply only to this product. Refer to the CPU module user's manual for a description of the PC system safety precautions. In this manual, the safety precautions are classified into two levels: "⚠ WARNING" and "⚠ CAUTION".

- ⚠ WARNING** Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
- ⚠ CAUTION** Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage.

Under some circumstances, failure to observe the precautions given under "⚠ CAUTION" may lead to serious consequences. Observe the precautions of both levels because they are important for personal and system safety. Make sure that the end users read this manual and then keep the manual in a safe place for future reference.

[Design Precautions]

- ⚠ CAUTION**
- Do not bundle the control wires with the main circuit or power wires, or install them close to each other. They should be installed 100mm or more from each other. Not doing so could result in noise that would cause erroneous operation.

[Installation Precautions]

- ⚠ CAUTION**
- Use the PC in an environment that meets the general specifications contained in this manual. Using this PC in an environment outside the range of the general specifications could result in electric shock, fire, erroneous operation, and damage to or deterioration of the product.
- When installing this product's I/O module, securely install it using 2 fastener screws (M2.6). If this product is not correctly installed it could fall out, the I/O module could malfunction, or problems could occur.

[Wiring Precautions]

- ⚠ WARNING**
- Completely turn off the external power when installing or placing wiring. Not completely turning off all power could result in electric shock or damage to the product.
- ⚠ CAUTION**
- When wiring in this product, be sure that it is done correctly by checking the terminal layout and the I/O module's rated voltage. Connecting a power supply that is different from the rating or incorrectly wiring could result in fire or damage.
- In addition to always using the correct wiring, be sure that the lever is correctly pushed in and that the wires are crimped onto the terminal conductors before using this product.
- Be sure there are no foreign substances such as sawdust or wiring debris inside this product and the I/O module. Such debris could cause fires, damage, or erroneous operation.

[Starting and Maintenance Precautions]

- ⚠ WARNING**
- Do not push in or pull out the lever while the electricity is on. Doing so could cause a malfunction or electric shock.
- Switch off all phases of the externally supplied power used in the system when cleaning the module or retightening the terminal or module mounting screws. Not doing so could result in electric shock. Undertightening of terminal screws can cause a short circuit or malfunction. Overtightening of screws can cause damages to the screws and/or the module, resulting in fallout, short circuits, or malfunction.

[Starting and Maintenance Precautions]

- ⚠ CAUTION**
- Do not disassemble or rebuild this product. It may cause accidents, erroneous operation, injury, or fire.
- Completely turn off the externally supplied power used in the system before mounting or removing the module. Not doing so could result in damage to the product.

[Disposal Precautions]

- ⚠ CAUTION**
- When disposing of this product, handle it as industrial waste.

● 安全注意事项 ●

(使用之前请务必阅读)

在使用本产品之前, 应仔细阅读本手册以及本手册中所介绍的相关手册, 同时在充分注意安全的前提下正确操作。本注意事项仅记载与本产品有关的内容。关于可编程控制器系统方面的安全注意事项, 请参阅CPU模块的用户手册。在“安全注意事项”中, 安全注意事项被分为“⚠ 警告”和“⚠ 注意”两个等级。

- ⚠ 警告** 表示错误操作可能造成危险后果, 导致死亡或重伤事故。
- ⚠ 注意** 表示错误操作可能造成危险后果, 导致中度伤害、轻伤或财产损失。

此外, 根据情况不同, 即使标注为“⚠ 注意”的事项也有可能引发严重事故。这两个等级的注意事项记载的均为重要内容, 请务必遵守。请妥善保管本手册以备需要时取阅, 并将本手册交给最终用户。

【设计注意事项】

- ⚠ 注意**
- 请勿将控制盘与主电路及动力线等捆扎在一起或相互靠得太近。应相距大约 100mm 以上距离。因为噪声有可能导致误动作。

【安装注意事项】

- ⚠ 注意**
- 应在手册记载的一般规格环境下使用可编程控制器。如果在一般规格范围以外的环境中使用可编程控制器, 可能导致触电、火灾、误动作、产品损坏或性能劣化。
- 应使用二个固定螺栓 (M2.6) 将本产品切实安装到输入输出模块上。如果本产品未正确安装, 有可能造成产品掉落、输入输出模块误动作或故障。

【配线注意事项】

- ⚠ 警告**
- 在配线作业等时, 必须将系统使用的外部供应电源全部断开后再进行操作。如果未全部断开, 有可能导致触电或产品损坏。
- ⚠ 注意**
- 进行本产品的配线作业时, 应在确认端子排列及输入输出模块的额定电压的基础上正确进行操作。如果连接了与额定值不符的电源或配线错误, 可能导致火灾或故障。
- 必须使用适当电线并在确认手柄已切实压入、电线已压接到端子导体的基础上使用。
- 应注意防止切削屑及配线头等异物掉入本产品及输入输出模块内。否则有可能导致火灾、故障或误动作。

【启动 / 维护注意事项】

- ⚠ 警告**
- 在通电状态下请勿插拔手柄。否则可能导致误动作、触电。
- 在清洁模块或重新紧固端子螺栓、模块固定螺栓时, 必须将系统使用的外部供应电源全部断开后再进行操作。如果未全部断开, 有可能导致触电。
- 如果端子螺栓拧得过松, 有可能导致短路或误动作。如果螺栓拧得过紧, 有可能造成螺栓及模块破损从而导致掉落、短路或误动作。

【启动 / 维护注意事项】

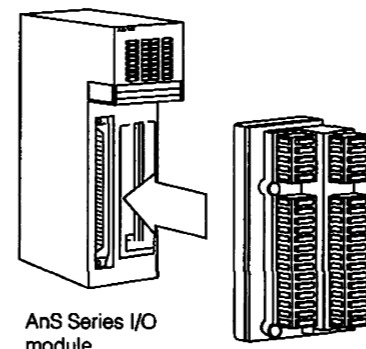
- ⚠ 注意**
- 请勿拆解或改造各模块。否则可能导致故障、误动作、人身伤害或火灾。
- 在拆装模块时, 必须将系统使用的外部供应电源全部断开后再进行操作。如果未全部断开, 有可能导致模块故障或误动作。

【报废处理注意事项】

- ⚠ 注意**
- 本产品报废时, 应当作为工业废物处理。

■ 1. GENERAL DESCRIPTION ■

This user's manual describes the specification and handling of the A1S-TA32, A1S-TA32-3, and A1S-TA-32-7 32-point pressure-displacement terminal block adapter (hereinafter referred to as A1S-TA32). The A1S-TA32 is an adapter for use with the connector of the A1S Series 32 point I/O module in order to convert the module connector into a pressure-displacement terminal block.



AnS Series I/O module

A1S-TA32 (For AWG20)
A1S-TA32-3 (For AWG22)
A1S-TA32-7 (For AWG18)

Upon unpacking the A1S-TA32, make sure that the following items are contained

(1) A1S-TA32

Name of Item	Quantity
A1S-TA32 Pressure-Connection Adapter for 32 point terminal blocks	1
Puller	1

(2) A1S-TA32-3

Name of Item	Quantity
A1S-TA32-3 Pressure-Connection Adapter for 32 point terminal blocks	1
Puller	1

(3) A1S-TA32-7

Name of Item	Quantity
A1S-TA32-7 Pressure-Connection Adapter for 32 point terminal blocks	1
Puller	1

■ 2. SPECIFICATIONS ■

(Performance Specifications)

Items	Specifications		
	A1S-TA32	A1S-TA32-3	A1S-TA32-7
Applicable models	A1SX41, A1SX41-S1, A1SX41-S2, A1SX71 A1SY41, A1SY41P, A1SY71		
Applicable wire ^{*1}	Polyvinyl chloride wire (twisted wire) AWG20 (0.5mm ²) Insulation diameter : ø1.9	Polyvinyl chloride wire (twisted wire) AWG22 (0.3mm ²) Insulation diameter : ø1.7	Polyvinyl chloride wire (twisted wire) AWG18 (0.75mm ²) Insulation diameter : ø2.1
Number of connectable wires	1		
Wire holding force ^{*2}	To the left : 3.5kgf / point or over Forward : 2.0kgf / point or over Upward or downward : 5.0kgf / point or over	To the left : 3.0kgf / point or over Forward : 2.0kgf / point or over Upward or downward : 5.0kgf / point or over	To the left : 3.5kgf / point or over Forward : 2.0kgf / point or over Upward or downward : 5.0kgf / point or over
Lever insertion force	7kgf or less		
Lever pulling force	0.4 to 3kgf		
Lever life (Number of times of use)	10 times : if the lever is pulled out and removed from the terminal block 30 times : if the lever is pulled out of place, but not removed from the terminal block.		
Max. allowable voltage	250 VAC		
Max. allowable current	3 ADC		
Contact resistance	100mΩ or less		
Weight	0.1kg		

*1 Recommended cable list

Use any of UL STYLE 1007, CSA TYPE TR-64 from the below manufacturers.

• A1S-TA32

Manufacture name	Size (AWG)	Conductor		Vinyl insulation.	
		Configuration (N of wires/mm)	External diameter (mm)	Average value (mm)	Standard outside diameter (mm)
SWCC SHOWA HOLDINGS CO., LTD.	20	21/0.18	0.95	0.39	1.80
Sumitomo Wiring Systems, Ltd.	20	127/0.16	0.95	0.41	1.77
Fujikura Ltd.	20	7/0.32	0.95	0.41	1.78

• A1S-TA32-3

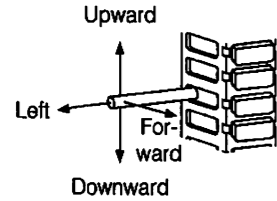
Manufacture name	Size (AWG)	Conductor		Vinyl insulation.	
		Configuration (N of wires/mm)	External diameter (mm)	Average value (mm)	Standard outside diameter (mm)
SWCC SHOWA HOLDINGS CO., LTD.	22	17/0.16	0.76	0.44	1.64
Sumitomo Wiring Systems, Ltd.	22	17/0.16	0.76	0.41	1.58
Fujikura Ltd.	22	7/0.254	0.76	0.41	1.60

For A1S-TA32-3, although the A1S-TA32-3 can be pressure-displaced by inserting the AWG24 cable (equivalent to 0.2mm²), do not use the way.

*1 Recommended cable list (from previous page)
 • A1S-TA32-7

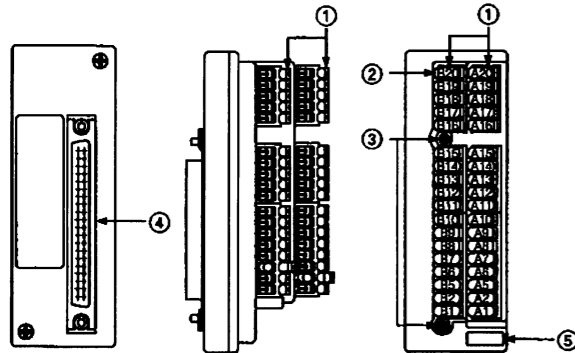
Manufacture name	Conductor			Vinyl insulation.	
	Size (AWG)	Configuration (N of wires/mm)	External diameter (mm)	Average value (mm)	Standard outside diameter (mm)
SWCC SHOWA HOLDINGS CO., LTD.	18	34/0.18	1.21	0.46	2.13
Sumitomo Wiring Systems., Ltd.	18	34/0.18	1.20	0.41	2.02
Fujikura Ltd.	18	34/0.18	1.21	0.49	2.20

*2 Directions of the wire holding power



See the user's manual for the CPU module being used for general specifications.

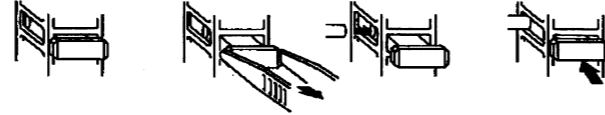
3. NAMES OF PARTS



Part-Number	Name	Description
①	Levers	Levers for connecting wires (After pulling out a lever, be sure to push it back in place)
②	Terminal number	Each terminal number denotes the pin number of the connector corresponding to the terminal at the lever
③	Mounting screws	Screws for mounting the A1S-TA32 on the I/O module. (M2.6 screws)
④	Connector	Connector of the I/O module.
⑤	Indication seal	Seal for indicating the model name and the applicable wire.

4. CAUTIONS ON HANDLING

- Do not drop or give intense shocks to the adapter since the body case is made of resin
- Do not take apart the body case to avoid a fault
- Take the following precautions when connecting or disconnecting a wire
 - When connecting a wire, pull the lever with the attached puller and insert an applicable wire into the hole. Then, push the lever back in place with a finger or the grip of the puller (The wire does not need to be stripped)

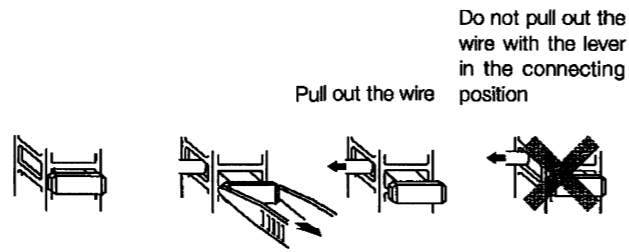


- Be sure to keep all the levers in the connecting position during operation whether or not wires are inserted in the terminal

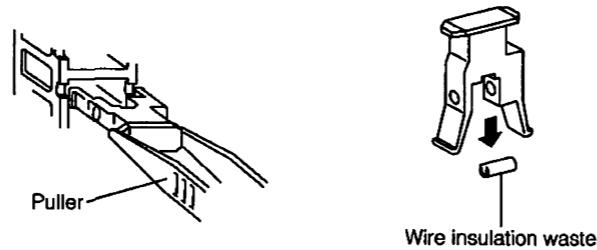


(Connecting position) (Disconnecting position)

- When disconnecting a wire, pull the lever to the disconnecting position (see the illustration under (b)) using the puller. Then, pull out the wire



- If the wire insulation waste is left in the terminal block, pull the lever out of the terminal block using the puller and remove the wire insulation waste out of the lever



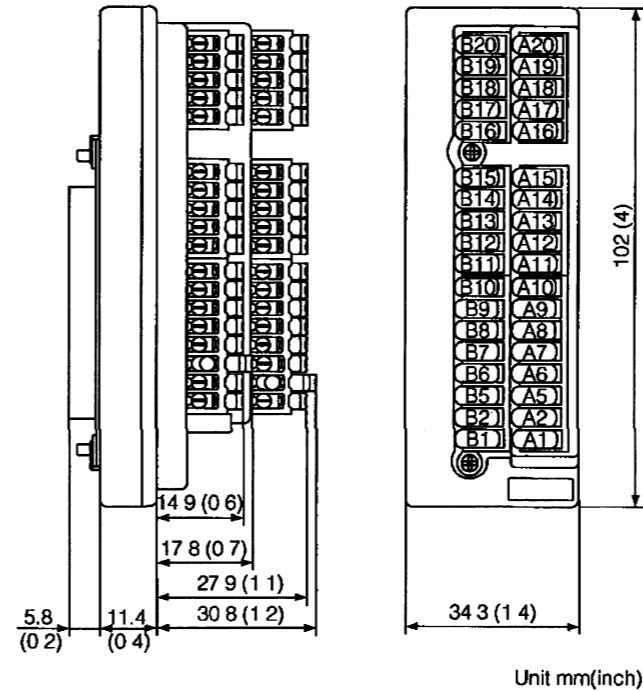
- When reconnecting a disconnected wire, first cut off its end (by approx 10mm)

5. EXTERNAL CONNECTION

The terminal numbers of A1S-TA32 correspond to the connector pin numbers of applicable I/O modules (The A1S-TA32 does not have A3/B3 and A4/B4 NC terminals)
 Refer to the specifications of the I/O module (external connection) described in the A1S/A2SCUP(S1) User's Manual (1B-66320) for the name of the signal corresponding to each terminal number (pin number) when external equipment is connected

- Type A1SJHCPU User's Manual (Hardware) IB(NA)66469
- Type A1SCPUC24-R2/A1SHCPU/A2SHCPU(S1)/A2ASCPU(S1/S30) /A2USHCPU-S1 User's Manual (Hardware) IB(NA)66468
- Q2AS(H)CPU(S1) User's Manual (Hardware) IB(NA)66677
- AnS Module type I/O User's Manual IB(NA)66541

6. OUTSIDE DIMENSIONS



WARRANTY

Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; machine damage or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

Country/Region	Sales office/Tel	Country/Region	Sales office/Tel
U.S.A.	Mitsubishi Electric Automation Inc. 500 Corporate Woods Parkway Vernon Hills, IL 60061, U.S.A. Tel : +1-847-478-2100	China	Mitsubishi Electric Automation (China) Ltd. 4/F Zhi Fu Plaza, No.80 Xin Chang Road, Shanghai 200003, China Tel : +86-21-6120-0808
Brazil	MELCO-TEC Rep. Com.e Assessoria Tecnica Ltda. Rua Correia Dias, 184, Edificio Paraiso Trade Center-8 andar Paraiso, Sao Paulo, SP Brazil Tel : +55-11-5908-8331	Taiwan	Selsuyo Enterprise Co., Ltd. 6F No.105 Wu-Kung 3rd Rd., Wu-Ku Hsiang, Taipei Hsine, Taiwan Tel : +886-2-2299-2499
Germany	Mitsubishi Electric Europe B.V. German Branch Gothaer Strasse 8 D-40880 Ratingen, GERMANY Tel : +49-2102-486-0	Korea	Mitsubishi Electric Automation Korea Co., Ltd. 1480-6, Gayang-dong, Gangseo-ku Seoul 157-200, Korea Tel : +82-2-3660-9552
U.K.	Mitsubishi Electric Europe B.V. UK Branch Travellers Lane, Hatfield, Hertfordshire., AL10 8XB, U.K. Tel : +44-1707-276100	Singapore	Mitsubishi Electric Asia Pte. Ltd. 307 Alexandra Road #05-01/02, Mitsubishi Electric Building, Singapore 159943 Tel : +65-6470-2480
Italy	Mitsubishi Electric Europe B.V. Italian Branch Centro Dir. Colleoni, Pal. Perseo-Ingr.2 Via Paracelso 12, I-20041 Agrate Brianza., Milano, Italy Tel : +39-039-60531	Thailand	Mitsubishi Electric Automation (Thailand) Co., Ltd. Bang-Chan Industrial Estate No.11 Moo 4, Serithai Rd., T.Kannayao, A.Kannayao, Bangkok 10230 Thailand Tel : +66-2-517-1326
Spain	Mitsubishi Electric Europe B.V. Spanish Branch Carretera de Rubi 76-80, E-08190 Sant Cugat del Valles, Barcelona, Spain Tel : +34-93-565-3131	Indonesia	P.T. Autoteknindo Sumber Makmur Muara Karang Selatan, Block A/Ulara No.1 Kav. No.11 Kawasan Industri Pergudangan Jakarta - Utara 14440, P.O.Box 5045 Jakarta, 11050 Indonesia Tel : +62-21-6630833
France	Mitsubishi Electric Europe B.V. French Branch 25, Boulevard des Bouvels, F-92741 Nanterre Cedex, France Tel : +33-1-5568-5568	India	Messung Systems Pvt. Ltd. Electronic Sadan NO.III Unit No15, M.I.C.Bhosari, Pune-411026, India Tel : +91-20-2712-3130
South Africa	Circuit Breaker Industries Ltd. Private Bag 2016, ZA-1600 Isando, South Africa Tel : +27-11-928-2000	Australia	Mitsubishi Electric Australia Pty. Ltd. 348 Victoria Road, Rydalmere, N.S.W. 2116, Australia Tel : +61-2-9684-7777

MITSUBISHI ELECTRIC CORPORATION
 HEAD OFFICE: TOKYO BUILDING, 2-7-3 MARUNOUCHI, CHYODA-KU, TOKYO 100-8316, JAPAN
 NAHQYA WORKS: 1-14, YAGA-BANBAI 5-CHOUME, HIGASHI-KU, NAGOYA, JAPAN

When exported from Japan, this manual does not require application to the Ministry of Economy, Trade and Industry for service transaction permission.

Specifications subject to change without notice.