

OMRON **SI**

GI-S series Safety I/O Terminal

GI-S□□□□□□

Instruction SHEET

OMRON Corporation
© OMRON Corporation 2019 All Rights Reserved. 4022169-1B

Precautions for Compliance with UL Standards, CSA Standards and EU Directives

Notice to Users of the GI series Safety I/O Terminal GI-SMD1624 and GI-SID1224 in USA, Canada and Europe

This instruction must be consulted in all cases in order to find out the nature of the potential HAZARDOUS and any actions which have to be taken to avoid them.
If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
This product is defined as an in-panel device and must be installed within a control panel.

Definition of Precautionary Information

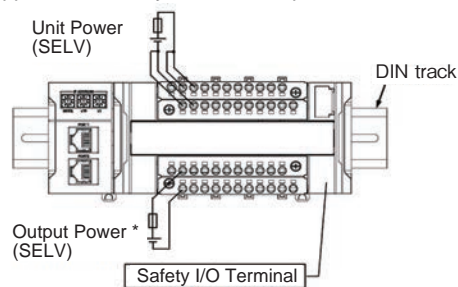
Caution Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or property damage.

Environment
for Indoor use only

Ambient Air Temperature	0 to 55°C
Relative Humidity	10% to 95% (with no condensation or no icing)
Altitude	2,000 m max.
Pollution Degree	2
Terminal Temperature	80°C
Degree of Protection	IP20

Current restrictions from power supply connector

The external power supplies must be DC power supplies that satisfy the SELV requirements.



☞: Over-current protection (Current limitation: F5A, 24 VDC min.)

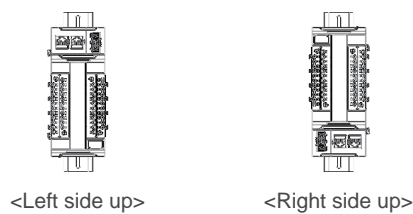
*GI-SMD1624 only

Use fuses of either of the following categories

- cULus Listed
- UL Listed and CSA certified

Direction for installation

The product can be installed in six directions of the figure below.



Electric Ratings

Source	V0 port: 24 VDC -15%/+20% SELV, 5.1 A max. (0.3 A with no load) *V1 port: 24 VDC -15%/+20% SELV, 2 A max. (0.1 A with no load)
Input	24 VDC SELV, 6 mA/point(GEN.), 12 points
Output	T0-T11: 24 VDC, 0.7 A/point (GEN.), 12 points, 5 A/unit *OUT0-OUT3: 24 VDC, 0.5 A/point (GEN.), 4 points, 2 A/unit

*GI-SMD1624 only.

I/O Wiring Diagram

GI-SMD1624	GI-SID1224
24 VDC input (12 point) Sourcing Output (4 point)	24 VDC input (12 point)
Upper Terminal Block	Upper Terminal Block
Lower Terminal Block	Lower Terminal Block

The input terminals (IN0-IN11) are not isolated from the internal circuit of the Safety I/O Terminal. When the external devices are connected to the input terminals (IN0-IN11) of the Safety I/O Terminal, the power of the external devices must be supplied from the Unit Power supply or Test output terminals (T0-T11).

Marking

☞: Functional Earth Terminal

Enclosure type

Please use this product in a control panel.
Enclosure type: Type 1 or more.

Cleaning

Do not use paint thinner or similar chemical to clean with. Use a dry cloth.

Conformance to UL Standards and CSA Standards

Compliance with Class I Division 2 Hazardous Location:

Input and output wiring must be in accordance with Class I, Div. 2 wiring methods and in accordance with the authority having jurisdiction.

1. This equipment is suitable for use in Class I, Div.2, Group A, B, C, D or Non-Hazardous Locations Only.
2. WARNING : Explosion Hazard - Do not Disconnect Equipment Unless Power Has Been Switched off or the Area Is Known to Be Non-Hazardous.
3. This device is open-type and is required to be installed in an enclosure suitable for the environment and can only be accessed with the use of a tool or key.

1. Cet équipement convient à l'utilisation dans des emplacements de Classe I, Division 2, Groupes A, B, C, D, ou ne convient qu'à l'utilisation dans des endroits non dangereux.
2. AVERTISSEMENT : Risque d'explosion - Avant de débrancher l'équipement, couper le courant ou s'assurer que l'emplacement est désigné non dangereux.
3. Ce dispositif est de type ouvert et doit être installé dans un coffret adapté à l'environnement et auquel on ne pourra accéder uniquement au moyen d'un outil ou d'une cle.

T code: T4A

Applicable wire size

Type	Wire size	Wire size	Conductor surface
Solid/Strand	AWG 28-16	9 mm	Plated
Solid/Strand	AWG 14*	11 mm	Plated

*AWG 14 only use by Functional Earth Terminal.

Use Copper Conductors Only.

Do not use ferrule terminals. Insert the strand or solid wire directly into the holes on the terminal block.
Please select wire size suitable for rated current.

Conformance to EU Directives

This product is EMC-compliant when assembled in PLC system or Machine Automation Controller. To ensure the EU Directive conformance of customer's machinery or equipment in which the product is incorporated, be sure to observe the following precautions.

1. This product is defined as an in-panel device and must be installed within a control panel.
2. This product complies with the common emission standard (EN61131-2, EN61000-6-4) with regard to EMI. For the radiated emission requirement (10-m regulations), in particular, please note that the actual emission varies depending on the configuration of the control panel to be used, the connected devices, and wiring methods. Therefore, the customer must confirm the EU Directive conformance of the overall machinery or equipment by themselves, even if this EU conforming product is used.

This is a class A product. In residential areas it may cause radio interference, in which case the user may be required to take adequate measures to reduce interference.
We have confirmed that this product conforms to EMC standards with OMRON S8VS series Power Supplies.

Conformance to KC Standards

● 사용자 안내문
이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.

OMRON Corporation (Manufacturer)
Shiokoji Horikawa, Shimogyo-ku, Kyoto, 600-8530 Japan
Tel: (81)75-344-7109 Fax: (81)75-344-7149
Contact: www.ia.omron.com

Regional Headquarters
OMRON EUROPE B.V. (Importer in EU)
Wegalaan 67-69, 2132 JD Hoofddorp, The Netherlands
Tel: (31)2356-81-300 Fax: (31)2356-81-388

OMRON ASIA PACIFIC PTE. LTD.
No. 438A Alexandra Road # 05-05/08 (Lobby 2), Alexandra Technopark, Singapore 119967
Tel: (65) 6835-3011 Fax: (65) 6835-2711

OMRON ELECTRONICS LLC
2895 Greenspoint Parkway, Suite 200 Hoffman Estates, IL 60169 U.S.A.
Tel: (1) 847-843-7900 Fax: (1) 847-843-7787

OMRON (CHINA) CO., LTD.
Room 2211, Bank of China Tower, 200 Yin Cheng Zhong Road, Pu Dong New Area, Shanghai, 200120, China
Tel: (86) 21-5037-2222 Fax: (86) 21-5037-2200
Note: Specifications subject to change without notice.
Printed in China

本書は英語オリジナル版の翻訳です。

OMRON **SI**

GI-S シリーズ セーフティ I/O ターミナル

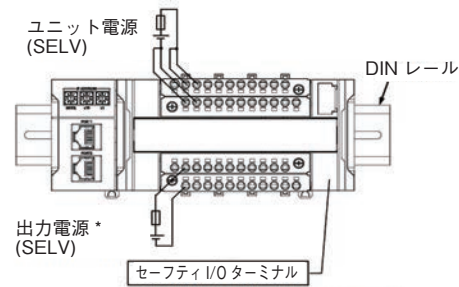
形GI-S□□□□□□

JA 取扱説明書

オムロン株式会社
© OMRON Corporation 2019 All Rights Reserved. 4022169-1B

電源コネクタからの電流に対する制限

外部電源はSELV要件を満たすDC電源を使用してください。



☞: 過電流保護 (電流制限: F5A, DC24V以上)

*形 GI-SMD1624 のみ
次のカテゴリーのいずれかのヒューズを使用してください。
• cULus 認証取得済み
• UL 認証および CSA 認証取得済み

I/O配線図

形 GI-SMD1624	形 GI-SID1224
DC24V 入力 (12 点) ソース出力 (4 点)	DC24V 入力 (12 点)
上部端子台	上部端子台
下部端子台	下部端子台

記号

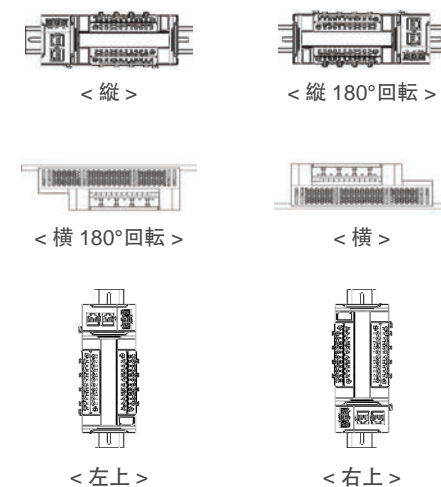
☞: 機能接地端子

セーフティ/Oターミナル形GI-SMD1624および形GI-SID1224の欧州ユーザーへの通知

本マニュアルは、潜在的な危険およびその回避策を調べる際に必ず参照してください。
製造元の指定した方法に従わず機器を使用した場合、機器の保護が損なわれることがあります。
この製品は盤内装置として定義されており、必ず制御盤の中に設置してください。

設置方向

この製品は下図の6方向に設置できます。



OMRON **St**

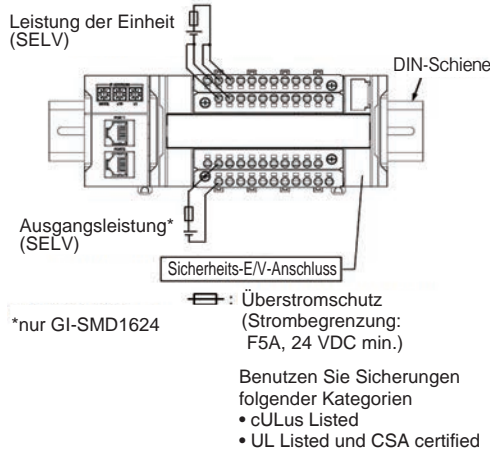
Sicherheits-E/V-Anschluss der GI-Serie

GI-S□□□□□□

DE BEDIENUNGSANLEITUNG

OMRON Corporation
© OMRON Corporation 2019 All Rights Reserved. 4022169-1B

- **Strombeschränkungen des Stromversorgungssteckers**
Die externen Stromversorgungen müssen Gleichstromanschlüsse sein, die die SELV-Anforderungen erfüllen.



● **E/A-Verdrahtungsplan**

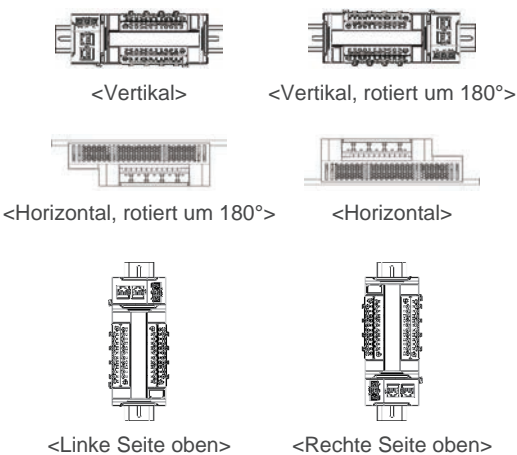
GI-SMD1624	GI-SID1224
24 VDC Eingang (12 Punkte) Aktiver Ausgang (4 Punkte)	24 VDC Eingang (12 Punkte)
Oberer Anschlussblock	Oberer Anschlussblock
Unterer Anschlussblock	Unterer Anschlussblock

- **Symbol**
⏏: Funktionserdeanschluss

Hinweis für europäische Benutzer der Sicherheits-E/V-Anschlüsse GI-SMD1624 und GI-SID1224 der GI-Serie

Diese Anleitung muss stets herangezogen werden, um potentielle GEFAHREN sowie alle Maßnahmen, die ergriffen werden müssen, um diese zu vermeiden, in Erfahrung zu bringen. Wird das Gerät auf eine Weise genutzt, wie sie nicht vom Hersteller vorgesehen wurde, kann dies die vom Gerät gebotene Sicherheit beeinträchtigen. Bei diesem Produkt handelt es sich um ein Einbauelement für Bedienpanels und muss als solches in einem Bedienpanel installiert werden.

- **Ausrichtung**
Das Produkt kann in den folgenden sechs Ausrichtungen installiert werden.



OMRON **St**

Terminal d'E/S de sécurité de la série GI-S

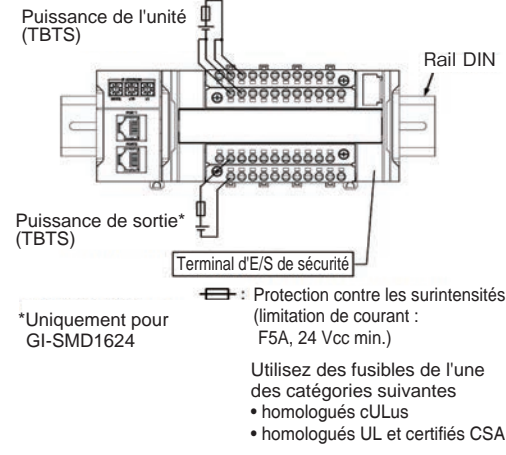
GI-S□□□□□□

FR FICHE D'INSTRUCTIONS

OMRON Corporation
© OMRON Corporation 2019 All Rights Reserved. 4022169-1B

- **Limitation de courant par le connecteur d'alimentation**

Les alimentations externes doivent être des alimentations CC qui répondent aux normes TBTS.



● **Schéma de câblage E/S**

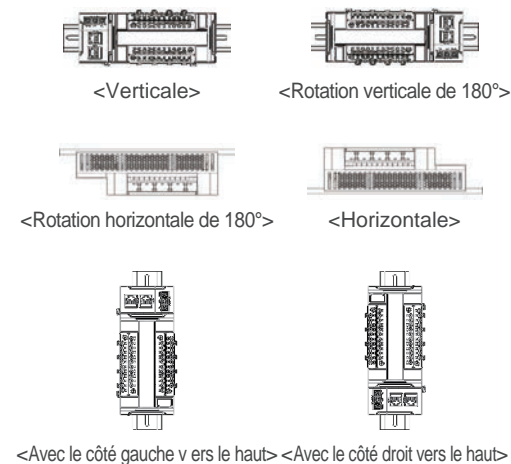
GI-SMD1624	GI-SID1224
Entrée 24 Vcc (12 points) Sortie Source (4 points)	Entrée 24 Vcc (12 points)
Bornier supérieur	Bornier supérieur
Bornier inférieur	Bornier inférieur

- **Symbole**
⏏: Borne de terre fonctionnelle

Remarques à l'attention des utilisateurs des terminaux d'E/S de sécurité GI-SMD1624 et GI-SID1224 en Europe.

Vous devez toujours vous référer à cette notice pour connaître la nature des DANGERS potentiels et les mesures à prendre pour les éviter. Toute utilisation de cet équipement non prévue par le fabricant peut altérer la protection qu'il est sensé procurer. Ce produit a été conçu pour fonctionner à l'intérieur d'un panneau de contrôle et doit donc y être installé.

- **Sens d'installation**
Le dispositif peut être installé dans les six directions indiquées ci-dessous.



OMRON **St**

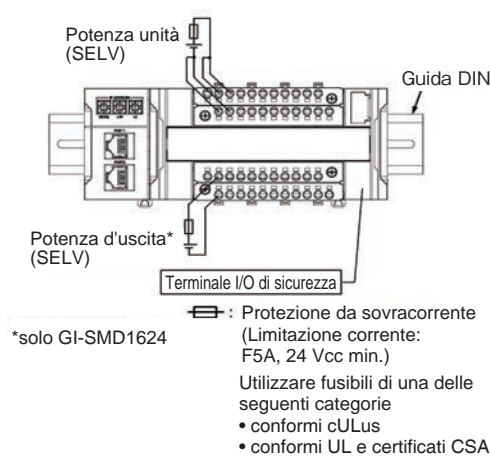
Terminale I/O di sicurezza, serie GI-S

GI-S□□□□□□

IT FOGLIO DI ISTRUZIONI

OMRON Corporation
© OMRON Corporation 2019 All Rights Reserved. 4022169-1B

- **Restrizioni della corrente dal connettore all'alimentazione**
Le alimentazioni esterne devono essere di tipo CC e devono soddisfare i requisiti SELV.



● **Schema elettrico I/O**

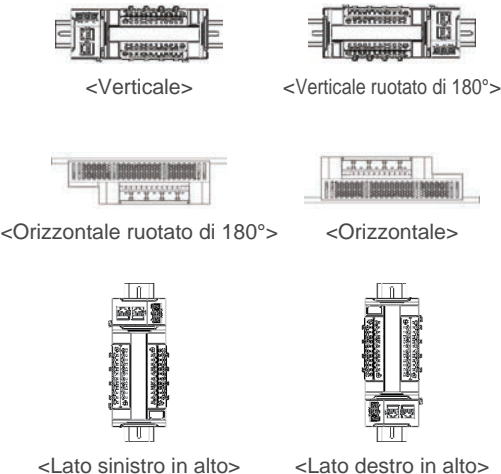
GI-SMD1624	GI-SID1224
Ingresso 24 Vcc (12 punti) Uscita sourcing (4 punti)	Ingresso 24 Vcc (12 punti)
Morsettiera superiore	Morsettiera superiore
Morsettiera inferiore	Morsettiera inferiore

- **Legenda**
⏏: Terminale di messa a terra

Avviso agli utenti della serie GI di terminali I/O di sicurezza GI-SMD1624 e GI-SID1224 in Europa

Queste istruzioni devono essere consultate in tutti i casi per poter individuare la natura dei RISCHI potenziali e le azioni da intraprendere per evitarli. Se l'attrezzatura è utilizzata in un modo non specificato dal fabbricante, la protezione fornita con l'attrezzatura potrebbe essere compromessa. Questo prodotto è definito come un dispositivo integrato nel pannello e deve essere installato all'interno del pannello di controllo.

- **Orientamento per l'installazione**
Si può installare il prodotto nelle sei direzioni descritte nell'immagine sottostante.



OMRON **St**

Terminales de E/S de seguridad de la Serie GI-S

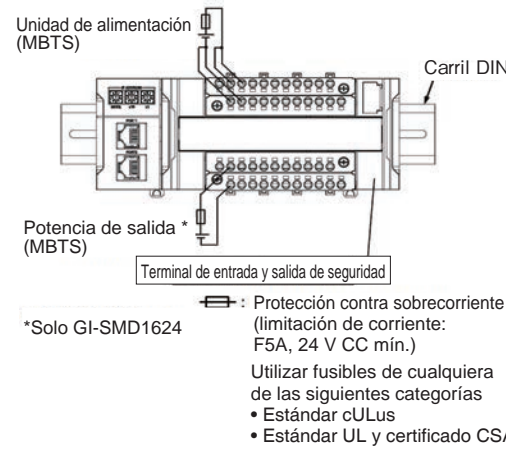
GI-S□□□□□□

ES HOJA DE INSTRUCCIONES

OMRON Corporation
© OMRON Corporation 2019 All Rights Reserved. 4022169-1B

- **Restricciones actuales del conector de alimentación**

Las fuentes de alimentación externas deben ser fuentes de alimentación de CC que cumplan con los requisitos de MBTS.



● **Cableado de entrada y salida**

GI-SMD1624	GI-SID1224
Entrada de 24 V CC (12 puntos) Salida de suministro (4 puntos)	Entrada de 24 V CC (12 puntos)
Regleta de conexiones superior	Regleta de conexiones superior
Regleta de conexiones inferior	Regleta de conexiones inferior

- **Símbolo**
⏏: Terminal de tierra funcional

Aviso a los usuarios del terminal de entrada y salida de seguridad de la Serie GI-SMD1624 y GI-SID1224 en Europa

Debe consultar estas instrucciones en todo momento para conocer la naturaleza de los posibles PELIGROS y saber qué medidas debe tomar para evitarlos. Si utiliza el equipo de una forma no especificada por el fabricante, la protección proporcionada por el equipo podría verse afectada. Este producto es un dispositivo integrado en panel, por lo que debe instalarse dentro de un panel de control.

- **Instrucciones de instalación**
El producto se puede instalar en seis direcciones, según la ilustración siguiente.

