## Panasonic instruction manual

 Safety Door Switch with Solenoid Interlock / Ultra-slimSG-B1 Series O C $\subset$ ©
 SAFETY PRECAUTIONS

## 

## $\triangle$ CAUTION

1 Type


2 Specifications and Ratings

| 2 Specifications and Ratings |  |
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3 Mounting Examples

(Examples of Mounting on Sliding Doors) (Examples of Mounting on Hinged Doors)

|  |
| :---: |
| 4 Precautions for Operation <br> For Mounting <br> install a mechanical door stop to the end of the door to protect the safety switch against excessive force. When a higher load works on the lock portion of the safety switch, the actuator may not unlock. A shock to the safety switch exceeding $1,000 \mathrm{~m} / \mathrm{s}^{2}$ may cause failure. Regardless of door types, do not use the safety switch as a door lock. Install a separate lock as shown in " 3 Mounting Examples.". Entry of foreign objects in the actuator entry slot may affect the mechanism of the switch and cause a breakdown. If the operating atmosphere is contaminated, use a protective cover to prevent the entry of foreign objects into the switch through the actuator entry slots. - While the solenoid is energized, the switch temperature rises approximately $35^{\circ} \mathrm{C}$ above the ambient temperature (to approximately $85^{\circ} \mathrm{C}$ while the ambient temperature is $50^{\circ} \mathrm{C}$ ). Keep hands off to prevent burns. If cables come into contact with the switch, use heat-resistant cables. When the actuator is locked or unlocked, the NC lock monitor contacts and NO unlock monitor contacts cause bouncing. When designing a control circuit, take the bouncing into consideration (reference values: 20 ms ). Solenoid has polarity. Be sure to wire correctly and do not apply reverse voltage otherwise the solenoid will be damaged. Do not apply voltage that exceed the rated voltage, otherwise the solenoid will be burnt out. When wiring, make sure that liquid such as water does notintude from the end of the cable. radius of 3 oing the cable during wiring, secure the cable shock, such as tensile and compressing force, to the Use the proprietary actuators only. Other actuators will cause damage to the switch. mounting surface, and provide sufficient on a flat Mak mounting surface so that it will not be distorted during Make sure that no foreign objects are caught between the safety switch and mounting surface. Uneven surface, distorted surface, or foreign objects may result in the malfunc- tion of safety switch. |
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## $\triangle$ WARNING




## $\triangle$ CAUTION

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 the actuator can be unlocked munualy.
Manual Unlocking Method
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## $\triangle$ CAUTION









## 5 Adjustments





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\end{aligned}
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## $\triangle$ CAUTION

##  <br>  <br>  <br> $\triangle$ CAUTION <br>  <br> 

6 Contact Operation and Wiring


| $\stackrel{\text { - Spring Lock }}{\text { Doorstates }}$ | Closed | Closed | Ooen | Closed |
| :---: | :---: | :---: | :---: | :---: |
| Door Manual Unlock Key | - | - | - | Tumste key |
| Main Cicruit $\quad 11-42$ | Closed | Open | Open | Open |
|  | Closed | Closed | open | ${ }^{\text {Closed }}$ |
| Look Montior Ciruut 51-52 | Closed | Ooen | Open | Open |
|  | Open | Closed | Coiosed | $\frac{\text { Closed }}{\text { off }}$ |
|  |  |  |  |  |


| - Magnet Lock Type (SG-B1-MM) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| - Magnet Lock Type (SG-B1 <br> Door States <br> Door States <br> Door Manual Unlock Key | - | - | - |  |
| Main Cirait ${ }^{\text {a }}$ | Closed | Open | Open | Open |
|  | Closed | Closed | Open | ${ }^{\text {coses }}$ |
| Lock Monitor Circuit 51-52Lock Monitor Circuit 53-54 <br> Solenoid Power A1-A2 <br> Solenoid Power | Closed | Open | Open | Open |
|  | Open | Cosed |  | ${ }_{\text {cosed }}^{\text {Cosed }}$ |
|  | $\begin{aligned} & \text { Door is locked. } \\ & \text { The machine can } \\ & \text { be operated. } \end{aligned}$ | $\begin{aligned} & \text { Door is unlocked. } \\ & \text { The machine can } \\ & \text { not be operated. } \end{aligned}$ |  | $\begin{aligned} & \text { Door is unlocked. } \\ & \text { The machine can } \\ & \text { not be operated. } \end{aligned}$ |




Actuator (Sold separatele
Type:
TG-K11





Type: :SG-K14

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9 Contact infomation for CE


Panasonic Industrial Devices SUNX Co., Ltd.


## Panasonic

## Addition of Information to the Instruction Manual Due to an Update of ISO 14119:2013, One of the Applicable Standards

CIMJE-SGB1 No.0078-91V
Thank you for purchasing a Panasonic product. Information on the following items will be added to the Instruction Manual of the SG-B1 series due to an update of ISO 14119:2013, one of the applicable standards.
Before using the product, carefully read the attached Instruction Manual and this document for the correct and optimum use of the product. Kindly keep the Instruction Manual and this document in a convenient place for quick reference.

1 Type

- Added the following model name information.

| Model No. : SG-B1-MA-G1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Locking principle - | Cable length |  |  |
| M : Magnet lock <br> S: Spring lock |  |  |  |
|  | - Contacts |  |  |
|  | Main contacts | Door monitor contacts | Lock monitor contacts |
|  | $\begin{aligned} & \mathbf{A}: 1 N C+1 N C \\ & B: 1 N C+1 N C \end{aligned}$ | $\begin{aligned} & 2 \mathrm{NC} \\ & 2 \mathrm{NC} \end{aligned}$ | $\begin{aligned} & 1 \mathrm{NC} \\ & 1 \mathrm{NO} \end{aligned}$ |

## 2 Specifications and Ratings

- Added information on the type and coding level to "Specifications and Ratings"
- Deleted the information on the Low Voltage Directive from the "Applicable Directives" table cell under "Specifications and Ratings" because this product is included in the scope of the Machinery Directive.

| Interlocking device Type / <br> the level of coded | Type 2 Interlocking device / <br> low level coded actuator (EN ISO / ISO 14119) |
| :--- | :--- |
| Applicable Directives | Machinery Directive (2006/42/EC) |

## Itemized Essentials of EU Declaration of Conformity

## Manufacturer's Name: Panasonic Industrial Devices SUNX Co., Ltd.

Manufacturer's Address: 2431-1, Ushiyama-cho, Kasugai, Aichi 486-0901, Japan
EU Representative's Name: Panasonic Marketing Europe GmbH Panasonic Testing Center
EU Representative's Address: Winsbergring 15, 22525 Hamburg, Germany
Product: Safety Door Switch with Solenoid Interlock
Model Name: SG-B1 Series
Trade Name: Panasonic
Application of Council Directive:

- 2006/42/EC Machinery Directive
- 2011/65/EU RoHS Directive

Applicable standards:

- EN 60947-5-1:2017
- GS-ET-19:2011
- EN IEC 63000:2018


## Panasonic Corporation

Panasonic Industrial Devices SUNX Co., Ltd.
https://panasonic.net/id/pidsx/global

[^0]
[^0]:    Please visit our website for inquiries and about our sales network.

