



型号G9SX-EX401-□
型号G9SX-EX041-T-□
灵活的安全单元

Chinese 使用说明书

感谢您此次购买型号G9SX灵活的安全单元。
本使用说明书中描述了型号G9SX使用上所需的功能、性能、使用等信息。
请遵循以下几点，使用G9SX产品。
·型号G9SX需由掌握电气知识的专门人员操作。
·请务必仔细阅读本说明书后正确使用。
·请妥善保管以备随时参阅。

欧姆龙株式会社

2139837-8C

EU符合性宣言

欧姆龙声明G9SX符合以下EU指令要求。
-EMC指令 2014/30/EU
-机械指令 2006/42/EC

规格

型号G9SX是根据以下规格要求，设计/制造的产品。
-EN ISO13849-1:2015 Category 4 PL e,
-IEC/EN61508 SIL3,
-IEC/EN61000-6-2, - IEC/EN61000-6-4,
-UL508, - UL1998,
-CAN/CSA C22.2 No. 142

安全注意事项

警告标识的含义

警告 如果不正确处理，则有可能对人身造成轻度或中度伤害。
严重情况下，甚至会导致重伤和死亡。另外可能会造成重大物损。

图案符号的含义

表示非特定、一般的禁止通告。

表示非特定、指示一般使用者行为的图案符号。

警告标识

警告 输出故障可能造成重大人身伤害。
切勿使用超出安全输出额定值的负载。

安全功能损坏可能造成重大人身伤害。
为了避免供电电源以及负载电源短路请妥善进行接线。

输出故障可能造成重大人身伤害。
在安全输出中连接感性负载时，请附加反电动势保护电路。

安全功能损坏可能造成重大人身伤害。
请使用相适合的控制设备。

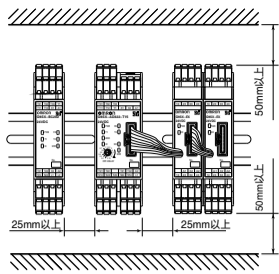
安全上的要点

- 请将型号G9SX放置于防护等级IP54 (IEC/EN60529) 以上的控制箱中使用。
- 输入输出端子请正确接线并在运行前进行动作确认。如果接线错误可能造成安全功能损坏。
- G9SX的电源输入，请不要连接额定值以上的DC或AC电源输出。请不要连接到直流分散电源网。
- 有触电的危险。
DC电源装置请满足以下几项内容。
-符合IEC/EN60950, EN50178等具有双重绝缘或强化绝缘的DC电源装置，或是符合IEC/EN61558的变压器。
-满足由UL508定义的2级电路或限制电压电流电路的输出特性要求。
- 报错输出、辅助输出不是安全输出。
请勿作为安全输出使用。
G9SX或外围设备发生故障时，会损坏安全功能。
- 型号G9SX的安装、点检、维护是否正确实行，请务必与“责任人”进行确认。
所谓“责任人”是指在机械的设计、安装、运用、维护、废弃各阶段，具有确保安全的资格、权限或责任的人。
- 型号G9SX的安装与安装后的确认，应对于安装机械非常熟悉的“责任人”进行操作。
- 每24小时切断一次安全输入或者是逻辑连接输入信号，通过报错显示灯确认G9SX是否正在动作中。
- 请勿拆卸、修理、改造本产品。否则原本的安全功能可能有失效的危险。
- 连接到G9SX的具有安全功能的设备、部件，请根据安全性能级别以及安全等级的要求使用相应的规格品。对于系统的安全性以及安全等级的符合性，需要对系统整体进行评价。关于安全等级符合性判定相关事宜，请与具有权限的第三方认定机构等详谈。
- 系统整体的安全标准符合性，由客户自行负责。
- 接线时，请务必在断电状态下进行。
1. 请切断负载电源后再接线。否则可能有触电危险。
2. 请切断电源后再接线。否则本装置连接的外部装置可能发生无法预测的动作。
- 在安装端子台的时候，请小心以免夹到手指。
- 产品寿命会因开闭条件而大不相同。使用时必须根据实际使用条件，进行实机确认。请在不影响性能的开闭次数范围内使用。
- 请勿在易燃易爆环境下使用。开闭所产生的电弧和继电器发热可能引起火灾或者爆炸。

使用上的注意

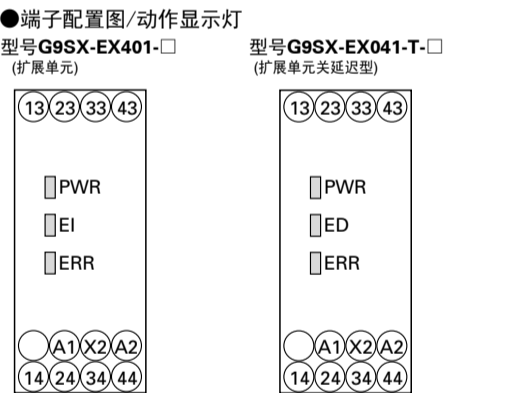
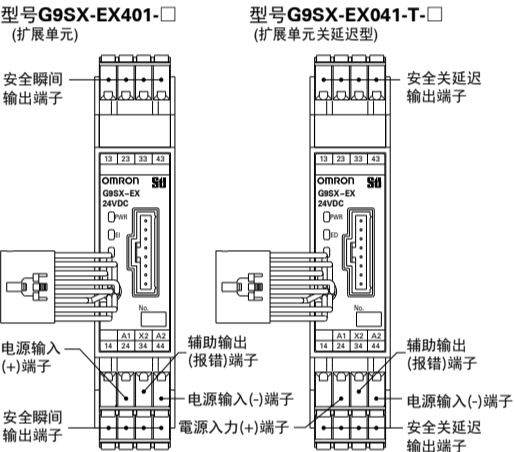
- 使用
请勿使产品坠落或受异常振动冲击。否则可能引起故障和误动作。
- 保管场所
请勿安装在以下场所，否则可能造成故障和误动作。
1. 受日光直射的场所。
2. 环境温度超出-10~55℃范围的场所。
3. 相对湿度超出25~85%RH范围的场所；温度变化激烈，容易引起结露的场所。
4. 有腐蚀性气体、可燃性气体的场所。
5. 振动和冲击超出本体额定值的场所。
6. 有水、油、药品等飞溅的场所。
7. 尘土、盐分、铁粉较多的场所。
- 安装
相对于G9SX的宽度，在DIN导轨较短的情况下，可能由于振动导致产品在DIN导轨上掉下来。
请使用挡板 (型号PPF-M, 另行购买)，将G9SX固定到DIN导轨上。

- 为了利于通风、接线以及满足输出额定，请保留出以下所示的空间。
1. 高性能单元 (型号G9SX-AD322-□-□) 25mm以上
扩展单元间 (型号G9SX-EX□-□-□) 25mm以上
2. 单元上下间距在50mm以上



- 接线
1. 型号G9SX-□
-接线时，请使用以下尺寸的电线。
单线 (steel wire) : 0.2~2.5mm² AWG24~12
绞线 (flexible wire) : 0.2~2.5mm² AWG24~12
-电线剥离长度请保持在7mm以下。
2. 型号G9SX-□-RT (螺丝式端子台型)
-为防止产品误动作、发热等情况，请按规定扭矩拧紧端子螺丝。
端子螺丝扭矩为：0.5~0.6Nm
(6) 与高性能单元 (G9SX-AD322□-□) 的连接
1. 取下高性能单元 (型号G9SX-AD322-T□-□) 的终端连接器，插入扩展单元的连接电缆的连接器。
2. 终端连接器请插入被指定为G9SX-6S□最终端的那个扩展单元中。不连接扩展单元时，请勿拔出高性能单元的终端连接器。
3. 在系统运行时，请勿拔出终端连接器。
4. 在通电之前，请确认连接器部切实插紧。
5. 高性能单元的电源启动后，请在10秒内启动所有连接着的扩展单元的电源。扩展单元的电源启动时间超过10秒时，所连接的高性能单元会检测到扩展单元的电源异常。
(7) 控制系统请在该系统相关的所有G9SX电源接通5秒以上后进行动作。
(8) 为了防止因干扰而造成的误动作，请务必将电源的A2端子接地。
(9) 请务必切断电源后再进行单元更换。否则本装置所连接的外部装置可能发生无法预料的动作。
(10) 溶剂附着
产品请勿附着酒精、稀释剂、三氯乙烯、汽油等溶剂。此类溶剂可能导致标记模糊、部品老化等原因。
(11) 请勿在1台G9SX-EX□-□的接口输出处混合使用AC、DC电路。使用AC、DC电路时，要连接两台以上的G9SX-EX□-□，分别作为DC电路专用接口输出，AC电路专用接口输出使用。
(12) 本产品为「class A」工业环境产品。如果用于住宅环境可能会引起电磁干扰。因此当用于住宅环境时，请做好电磁干扰的对应措施。

1 各部分的名称

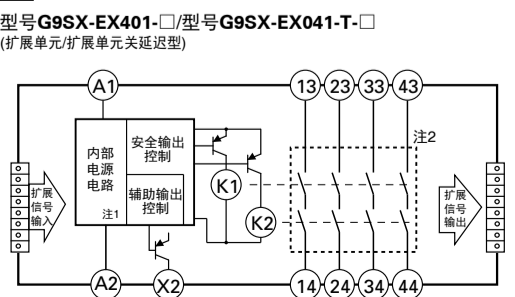


显示	颜色	名称	功能
PWR	绿	电源显示灯	通电时亮灯。
ERR	红	报错显示灯	发生报错时亮灯。 详情请参照“7 故障检测。”
EI	橙	安全瞬间输出显示灯	安全瞬间输出为ON时，显示灯亮灯。
ED	橙	安全关延迟输出显示灯	安全关延迟输出为ON时，显示灯亮灯。

关于输入/输出的接线

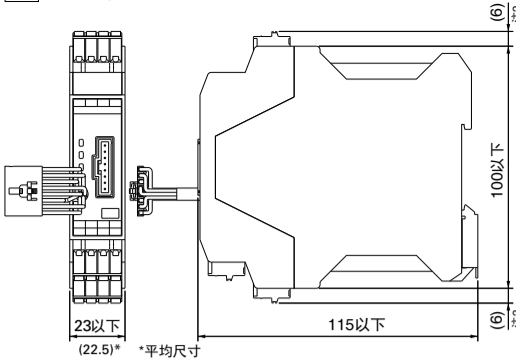
信号名	端子名	动作概要	接线
电源输入	A1, A2	型号G9SX用的电源输入端子。 请将电源连接到A1以及A2端子。	A1端子连接电源的+侧 (DC24V) A2端子连接电源的-侧 (GND)
安全输出	13-14, 23-24, 33-34, 43-44	继电器输出的ON/OFF与高性能单元的同步。	未使用时请设置为开路。
辅助输出 (报错)	X2	报错显示灯亮灯时，输出为ON。	未使用时请设置为开路。

2 内部连接图



注1.内部电源电路不隔离。
注2.继电器接点输出被隔离。

3 外形尺寸



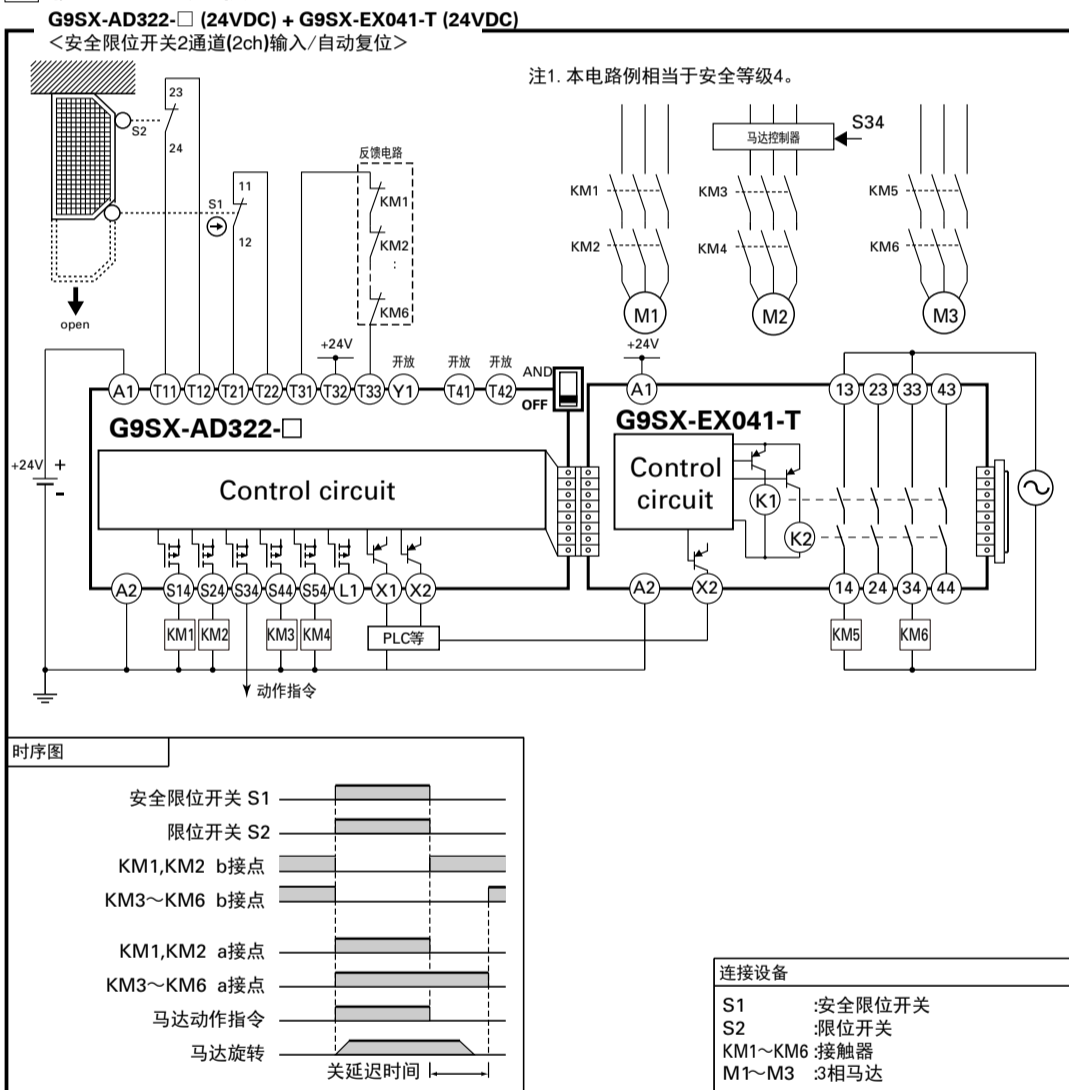
注1.上图为-RC型单元。
注2.-RC型时。

性能

项目	型号G9SX-EX401-□	型号G9SX-EX041-T-□
过电压等级 (IEC/EN60664-1)	II (但是继电器输出部: 端子13~43、端子14~44是 III)	
动作时间 (OFF→ON) (注1)	30ms以下	
响应时间 (ON→OFF) (注1)	10ms以下	
连接台数	5单元以下 (可以实现型号G9SX-EX401-□与型号G9SX-EX041-T-□的混合连接)	
关延迟时间精度 (注2)	±5%以内 (对设定值的比例) (注3)	
绝缘阻抗	全端子总体⇔DIN导轨间	100MΩ以上 DC500V绝缘电阻计
输出异极间	继电器输出外的端子总体	
继电器输出外的端子总体	⇔继电器输出端子总体	
耐电压	全端子总体⇔DIN导轨间	AC1200V 1min.
输出异极间	继电器输出外的端子总体	AC2200V 1min.
耐振动	10~55~10Hz, 单振幅0.375mm (复振幅0.75mm)	
耐冲击	耐久300m/s ² 误动作100m/s ²	
使用环境温度	-10~+55℃ (但是没有结冰和积露)	
使用环境湿度	25~85%RH	
端子紧固强度	0.5N·m (针对型号G9SX-□-RT:螺丝式端子台型)	
重量	约145g	

(注1) 不包括型号G9SX-AD322-□-□ (高性能单元) 的动作时间、响应时间。
(注2) 不包括内部继电器的复位时间的精度。
(注3) 关延迟时间与所连接的高性能单元的设定时间一致。

5 使用用途范例



6 性能级别以及安全等级

(欧盟机械安全标准EN ISO13849-1)
型号G9SA适用于欧洲规格EN ISO13849-1要求的性能级别PL-e以及安全等级4的场合。安全相关的特性数据请查看以下链接
http://www.fa.omron.co.jp/safety_6en/
但是该符合性设定是根据本公司的电路实例以及使用条件而得出的判定。不同的使用情况有可能不完全符合。
安全等级根据安全控制系统整体情况进行判定，使用时请充分确认。
·为符合安全等级4 (EN ISO13849-1)，请注意以下事项。为了防止安全接点的熔断，安全输出处请连接公称电流在3.15以下的保险丝。

7 故障检测

型号G9SX检测出报错时，ERR显示灯将亮起，以此通知报错内容。
请根据下表实施对策。
对策实施完后，请再次接通电源。

ERR显示灯	内容	原因	对策
●亮灯	扩展单元安全继电器输出故障	1)继电器接点的熔断 2)内部电路故障	请更换产品。

4 额定·性能

●额定	
项目	G9SX-EX401-□/G9SX-EX041-□
电源部	电源电压 DC24V 电压容许变动范围 电源电压的 -15% +10% 消耗功率 2W以下
输出部	额定负载 AC250V 3A/DC30V 3A (电阻负载) 额定通电电流 3A 接点电压的最大值 AC250V DC125V 辅助输出 PNP晶体管输出 负载电流: 100mA以下
●耐久性	
项目	G9SX-EX401-□/G9SX-EX041-□
电气耐久性	10万次以上 (额定负载、关闭频率1,800次/h)
机械耐久性	500万次以上 (关闭频率7,200次/h)

使用时的承诺事项

本产品是用于机械安全的Component商品，不同的使用方法有时可能无法满足要求的安全性。请遵守安全Component综合商品样本卷首所记载的“警告”内容：“①风险评价的实行②安全策略③安全设备的作用④安全设备的设置⑤遵守法律⑥使用上的注意事项⑦装置/设备转移/转让”并在使用。
a) 在室外，存在潜在科学污染或者电气干扰等情况下使用，或者在参考手册中未记载的条件环境下使用。
b) 用于原子能控制设备、焚烧设备、铁路、航空、车辆设备、医疗设备、娱乐机械、以及必须符合行政机关或个别业界的规制的设备。
c) 有可能危害到人身、财产安全的系统、机械、装置。
d) 天然气、自来水、电气供给系统或其他24小时连续运转系统等，对可靠性要求较高的设备。
e) 其他 (请参见上述a)~d)，对安全性要求高的用途。

* 上述仅列出一部分适用用途。使用前，请先仔细阅读本公司的最佳、综合商品样本、规格书等，最新版的商品样本、规格书中所记载的保证/免责事项。

联系方式

- 制造商
欧姆龙 (上海) 有限公司
地址: 中国 (上海) 自由贸易试验区金吉路789号
电话: (86) 21-50509988
- 技术咨询
欧姆龙自动化 (中国) 有限公司
地址: 中国上海市浦东新区银城中路200号中银大厦2211室
电话: (86) 21-5037-2222
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网址: <http://www.fa.omron.com.cn>

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Type G9SX-EX401-□ Type G9SX-EX041-T-□

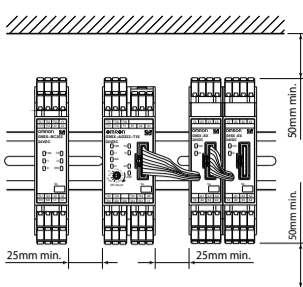
Flexible Safety Unit

English USER'S MANUAL

Thank you for purchasing G9SX Flexible Safety Unit. Please read and understand this manual before using the products. Keep this manual ready to use whenever needed. Only qualified person trained in professional electrical technique should handle G9SX. Please consult your OMRON representative if you have any questions or comments. Make sure that information written in this document are delivered to the final user of the product.

OMRON Corporation
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- (4) Following spacing around G9SX should be available to apply rated current to outputs of G9SX and for enough ventilation and wiring:
- At least 25 mm beside side faces of G9SX.
 - At least 50 mm above top face of G9SX and below bottom face of G9SX.
 - At least 25 mm between side face of Advanced unit (G9SX-AD322-□□) and side face of Expansion unit (G9SX-EX401-□ or G9SX-EX041-T-□).



- (5) Wiring
- For model G9SX-□
 - Use the following to wire to G9SX-□.
 - Solid wire: 0.2 to 2.5mm² AWG24 to AWG12
 - Stranded wire (Flexible wire): 0.2 to 2.5mm² AWG24 to AWG12
 - Strip the cover of wire no longer than 7mm.
 - For model G9SX-□RT (with screw terminals)
 - Tighten each screw with a specified torque of 0.5 to 0.6N·m, or the G9SX-□ may malfunction or generate heat.
- (6) When connecting Expansion Units to Advanced Unit (TYPE G9SX-AD322-□□):
- Follow the procedure below:
 - Remove the termination connector from the receptacle on Advanced Unit (TYPE G9SX-AD322-□□).
 - Insert the head of the connecting cable of Expansion Unit to the receptacle on the Advanced Unit.
 - Set the termination connector to the receptacle on the Expansion Unit at the end position. When Advanced Unit is used as without expansion units, leave the termination connector set on the Advanced Unit.
 - Do not remove the termination connector while the system is operating.
 - Before applying supply voltage, confirm that the connecting sockets and plugs are locked firmly.
 - All of the Expansion Units should be supplied with its specified voltages within 10s after the connected Advanced Unit is supplied with voltage. Otherwise, Advanced Unit detects the power-supply error for the Expansion Units.
- (7) Start entire system after more than 5s have passed since applying supply voltage to all G9SXs in the system.
- (8) G9SX may malfunction due to electro-magnetic disturbances. Be sure to connect the terminal A2 to ground.
- (9) Devices connected to G9SX may operate unexpectedly. When replacing G9SX, disconnect it from power supply.
- (10) Adhesion of solvent such as alcohol, thinner, trichloroethane or gasoline on the product should be avoided. Such solvents make the marking on G9SX illegible and cause deterioration of parts.
- (11) Do NOT mix AC load and DC load to be switched in one G9SX-EX-□. When switching of both AC load and DC load is necessary, connect more than two G9SX-EX-□ and use each unit for AC load and DC load exclusively.
- (12) 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.

EU Declaration of Conformity

OMRON declares that G9SX is in conformity with the requirements of the following EU Directives:

- EMC Directive 2014/30/EU
- Machinery Directive 2006/42/EC

Standards

G9SX is designed and manufactured in accordance with the following standards:

- EN ISO 13849-1:2015 Category 4 PL e,
- IEC/EN 61508 SIL3,
- IEC/EN 61000-6-2, - IEC/EN 61000-6-4, UL508, - UL1998,
- CAN/CSA C22.2 No.142

Safety Precautions

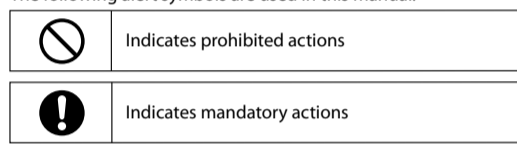
Meanings of Signal Words

The following signal words are used in this manual.

WARNING Indicates a potentially hazardous situation which, if not avoided, will result in minor or moderate injury, or may result in serious injury or death. Additionally there may be significant property damage.

Meaning of Alert Symbols

The following alert symbols are used in this manual.



Alert Statements

- WARNING**
- Serious injury may possibly occur due to breakdown of safety outputs. Do not connect loads beyond the rated value to the safety outputs.
 - Serious injury may possibly occur due to loss of required safety functions. Wire G9SX properly so that supply voltages or voltages for loads do NOT touch the safety inputs accidentally or unintentionally.
 - Serious injury may possibly occur due to damages of safety inputs. Apply protection circuitry against back electromotive force in case connecting inductiveloads to safety outputs.
 - Serious injury may possibly occur due to loss of safety functions. Use devices appropriate for the application and the condition where G9SX is used.

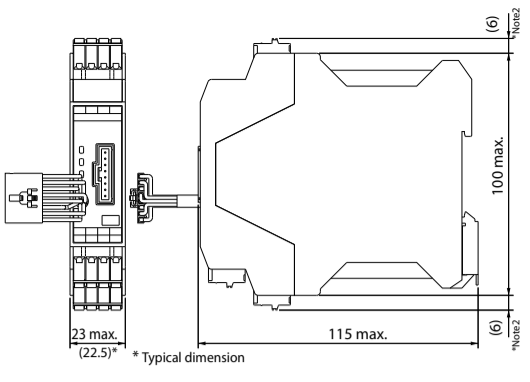
Precaution for Safe Use

- Use G9SX within a enclosure with IP54 protection or higher of IEC/EN60529.
- Incorrect wiring may lead to loss of safety function. Wireconductors correctly and verify the operation of G9SX before commissioning the system in which G9SX is incorporated.
- Do not apply DC voltages exceeding the rated voltages, nor any AC voltages to G9SX. Do not connect to DC distribution network.
- Use DC supply satisfying requirements below to prevent electric shock.
 - DC power supply with double or reinforced insulation, for example, according to IED/EN60950 or EN50178 or a transformer according to IEC/EN61558.
 - DC supply used satisfies the requirement for class 2 circuits or limited voltage/current circuit stated in UL 508.
- Auxiliary error output is NOT safety outputs. Do not use auxiliary error output as any safety output. Such incorrect use causes loss of safety function of G9SX and its relevant system.
- After installation of G9SX, qualified personnel should confirm the installation, and should conduct test operations and maintenance. The qualified personnel should be qualified and authorized to secure the safety on each phases of design, installation, running, maintenance and disposal of system.
- A person in charge, who is familiar to the machine in which G9SX is to be installed, should conduct and verify the installation.
- Turn OFF the signal to Safety input or Logical AND connection input every 24hours and make sure G9SX operates without faults by checking the state of the ERR indicator.
- Do not dismantle, repair, or modify G9SX. It may lead to loss of its safety functions.
- Use only appropriate components or devices complying with relevant safety standards corresponding to the required level of safety categories. Conformity to requirements of safety category is determined as an entire system. It is recommended to consult a certification body regarding assessment of conformity to the required safety level.
- OMRON shall not be responsible for conformity with any safety standards regarding to customer's entire system.
- Disconnect G9SX from power supply when wiring, to prevent electric shock or unexpected operation.
- Be cautious not to have your fingers caught when attaching terminal sockets to the plugs on G9SX.
- The lifetime of G9SX depends on the conditions of switching of its outputs. Be sure to conduct its test operation under actual operating conditions in advance and use it within appropriate switching cycles
- Do not use in combustible gases or explosive gases. Arcs or heat generated by switching elements of G9SX can lead to fire or explosion.

Precautions for Correct Use

- Handle with care
 - Do not drop G9SX to the ground or expose to excessive vibration or mechanical shocks. G9SX may be damaged and may not function properly.
 - Conditions of storage
 - Do not store in such conditions stated below.
 - In direct sunlight
 - At ambient temperatures out of the range of -10 to 55°C
 - At relative humidity out of the range of 25 to 85% or under such temperature change that causes condensation.
 - In corrosive or combustible gases
 - With vibration or mechanical shocks out of the rated values.
 - Under splashing of water, oil, chemicals
 - In the atmosphere containing dusts, saline or metal powder
- Mounting
 - Mount G9SX to DIN rails with attachments (TYPE PFF-M, not incorporated to this product), not to drop out of rails by vibration etc. especially when the length of DIN railing is short compared to the widths of G9SX.

3 Dimensions



*Note1 Above outline drawing is for -RC terminal type.
*Note2 For -RC terminal type only.

Specifications and Performance

Item	G9SX-EX401-□	G9SX-EX041-T-□
Over voltage category (IEC/EN 60664-1)	II (safety relay outputs 13 to 43, 14 to 44 : III)	
Operating time (OFF to ON state) (See Note1)	30ms Max.	
Response time (ON to OFF state) (See Note1)	10ms Max.	
Maximum number of connectable units	5 units Max. (Both G9SX-EX401-□ and G9SX-EX041-T-□ can be connected in the same system.)	
Accuracy of Off-delay time (See Note2)	Within plus or minus 5% of the set value (See Note3)	
Vibration resistance	Frequency: 10 to 55 to 10 Hz, Amplitude: 0.375mm half amplitude (0.75mm double amplitude)	
Mechanical shock resistance	300 m/s ² (destruction), 100m/s ² (malfunction)	
Ambient temperature	-10 to +55°C(No freezing or condensation)	
Ambient humidity	25 ~ 85%RH	
Terminal tightening	0.5 Nm (Applicable only to TYPE G9SX-□-RT:screw terminal model)	
Weight	Approx. 145 g	

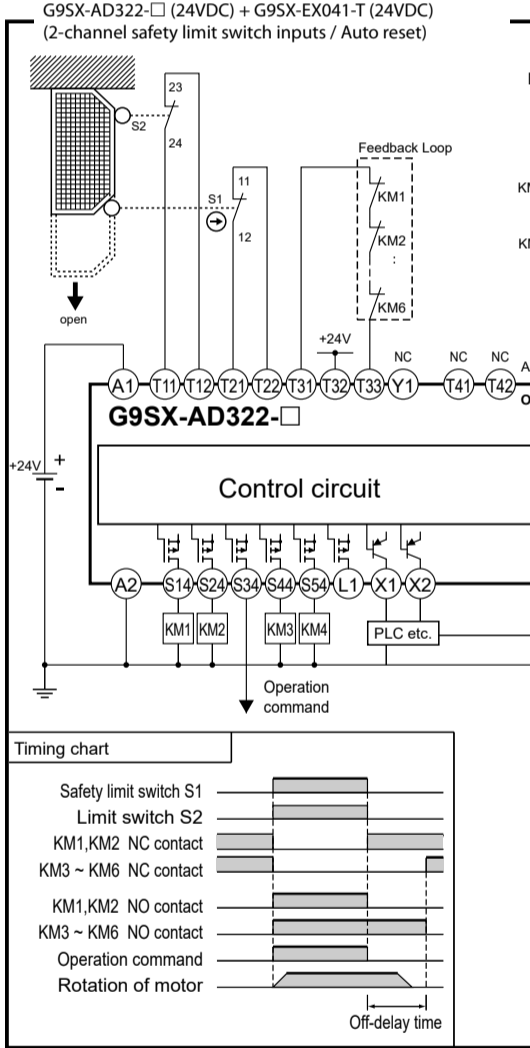
Note1: Not including Operating time or Response time of G9SX-AD322-□□ (Advanced Unit).
Note2: Not including accuracy of release time of the relays.
Note3: Off-delay time setting is applied from Advanced Unit.

Isolation specification

Item	G9SX-EX401-□/G9SX-EX041-T-□
Insulation resistance	Between all terminals connected together and DIN rail Between different poles of outputs Between Safety relay outputs connected together and other terminals connected together. 100Mohm Min. (by 500VDC megger)
Dielectric strength	Between all terminals connected together and DIN rail Between different poles of outputs
	Between Safety relay outputs connected together and other terminals connected together.

5 Examples of application

Application and timing chart



6 Performance Level and Safety category of EN ISO 13849-1

The G9SX can be used up to PL =e and Category 4 required by EN ISO 13849-1 European standard. Refer to the following link for the Safety-relay characteristic data:
http://www.fa.omron.co.jp/safety_6en/
This does NOT mean that G9SX can always be used for required category under all the similar conditions and situations. Conformity to the categories must be assessed as a whole system. When using G9SX for safety categories, make sure the conformity of the whole system.

For use of Safety category 4, fuses of 3.15A current rating should be connected to safety relay outputs to prevent welding of the contacts.

7 Fault Detection

When G9SX detects a fault, ERR indicator lights up to show the information of the fault. Check and take needed measures referring to the following table. And then apply supply voltage to G9SX.

ERR indicator	Conditions	Expected causes of the faults	Expected causes of the faults
Light up	Faults involved with Safety relay outputs of Expansion Units	1) Welding of relay contacts 2) Failures of the parts of the internal circuits	Replace with a new product.

4 Ratings and Specifications

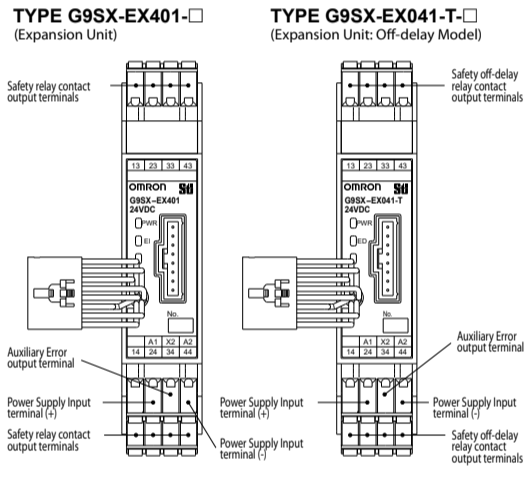
Ratings

Item	G9SX-EX401-□/G9SX-EX041-T-□	
Power input	Rated supply voltage	24VDC
	Operating voltage range	-15% to +10% of rated supply voltage
	Rated power consumption	2W Max.
Outputs	Rated load	250VAC 3A / 30VDC 3A (resistive load)
	Rated carry current	3A
	Maximum switching voltage	250VAC, 125VDC
	Auxiliary output	PNP transistor output, Load current: 100mA Max.

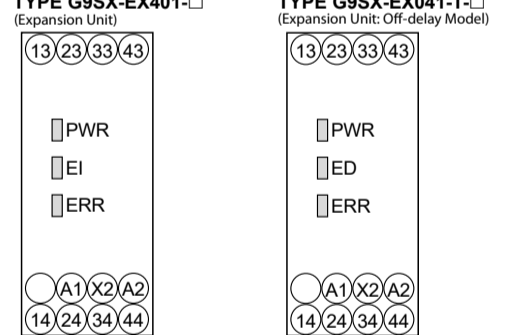
Endurance

Item	G9SX-EX401-□/G9SX-EX041-T-□
Electrical endurance	100,000 cycles Min. (Rated load, Switching frequency: 1,800 cycles/hour)
Mechanical endurance	5,000,000 cycles Min. (Switching frequency: 7,200 cycles/hour)

1 Appearance and Explanation of Each Parts



Terminal arrangement and LED indicators



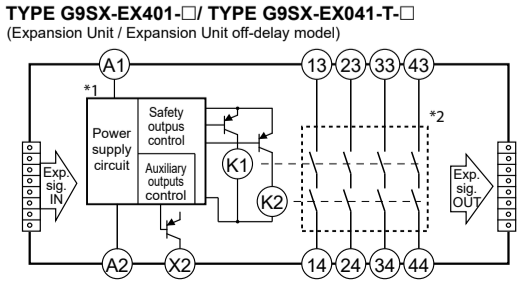
LED Indicators

Marking	Color	Name	Function
PWR	Green	Power Supply Indicator	Lights up while power is supplied.
ERR	Red	Error Indicator	Lights up when an error occurs. For details refer to '7. Fault Detection'.
EI	Orange	Safety Output Indicator	Lights up while Safety relay outputs are in ON-state.
ED	Orange	Off-delayed Safety Output Indicator	Lights up while Off-delayed relay outputs are in ON-state.

Wiring of inputs and outputs

Signal name	Terminal name	Description of operation	Wiring
Power supply input	A1, A2	The input terminals for power supply. Connect the power source to A1 and A2 terminals.	Connect the power supply plus to the A1 terminal. Connect the power supply minus to the A2 terminal.
Safety relay output	13-14, 23-24, 33-34, 43-44	The outputs synchronize with safety outputs of Advanced unit.	Keep these outputs Open when NOT used.
Auxiliary error output	X2	Outputs during error indicator is lighting up.	Keep these outputs Open when NOT used.

2 Internal Connection



Suitability for Use

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

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