





Panasonic [®]		INSTRUCTION MANUAL					
Enabling Grip Switch SG-C1 Series							
		MJE-SGC1 No.0054-18V					
Thank you very much for purchasing Panasonic products. Please read this Instruction Manual carefully and thoroughly for the correct and optimum use of this product. Kindly keep this manual in a convenient place for quick reference.							
SAFETY PRECAUTIONS							
In this operating instruction sheet, safety precautions are categorized to Warning and Caution:							
 WARNING							
Warning notices are used to emphasize that improper operation may cause severe personal injury or death.							
 CAUTION							
Caution notices are used where inattention might cause personal injury or damage to equipment.							
1 Type							
Model No.	3 position switch	Additional switch					
		Emergency stop switch	Momentary pushbutton switch	Key selector switch	Indicator		
SG-C1-21	Equipped	—	—	—	—		
SG-C1-21-E		Equipped	—	—	Equipped		
SG-C1-21-EG			Equipped	Equipped	—		
SG-C1-21-EMK			Equipped	Equipped			
SG-C1-21-EMM		—	Equipped (2 pcs.)	—	—		
SG-C1-21-MM							
2 Specifications and Ratings							
Applicable Standards	IEC60947-5-1, EN60947-5-1, JIS C8201-5-1 GS-ET-22, UL508, CSA C22.2 No.14						
Standards for Use	ISO12100/EN ISO12100,IEC60204-1/ EN60204-1, ISO11161/EN ISO11161,ISO10218-1/EN ISO10218-1, ANSI/RIA/ISO10218-1, ANSI/RIA R15.06, ANSI B11.19, ISO13849-1/EN ISO13849-1						
Applicable Directives	Low Voltage Directive (2014/35/EU) Machinery Directive (2006/42/EC)						
Operating Condition	Operating Temperature	-25 to +60℃(no freezing)					
	Operating Humidity	45 to 85%RH(no condensation)					
	Storage Temperature	-40 to +80℃(no freezing)					
	Pollution Degree	3 (inside housing 2)					
	Altitude	2000m maximum					
Impulse Withstand Voltage (Uimp)	2.5 kV (additional momentary pushbutton switch, key selector switch: 1.5kV)						
Rated Insulation voltage	250V(Additional momentary pushbutton switch and Key selector switch:125V/30V(With Pilot Light)						
Thermal Current <Ith>	3A (Emergency stop switch: 5A)						
Contact Ratings (Reference Values) < Ue , Ie > *1	Grip Switch	3 position enabling switch (terminal No. NO1-C1 and NO2-C2)	AC	Resistive load (AC-12)	—	1A	0.5A
			DC	Inductive load (AC-15)	—	0.7A	0.5A
				Resistive load (DC-12)	1A	0.2A	—
				Inductive load (DC-13)	0.7A	0.1A	—
		AC		Resistive load (AC-12)	—	2.5A	1.5A
			DC	Inductive load (AC-15)	—	1.5A	0.75A
				Resistive load (DC-12)	2.5A	1.1A	0.55A
				Inductive load (DC-13)	2.3A	0.55A	0.27A
		Emergency stop switch (terminal No. 1-2 and 1-2)		DC	Resistive load (AC-12)	—	5A
			Inductive load (AC-15)		—	3A	1.5A
			Resistive load (DC-12)		2A	0.4A	0.2A
			Inductive load (DC-13)		1A	0.22A	0.1A
	Momentary pushbutton switch, Key selector switch (terminal No. C1 NO1 NC1, No. C2 NO2 NC2)	DC	Resistive load (AC-12)	—	0.5A	—	
Inductive load (AC-15)			—	0.3A	—		
Resistive load (DC-12)			1A	0.2A	—		
Inductive load (DC-13)			0.7A	0.1A	—		
Electric Shock Protection Class	Class II (IEC61140)  , Class III (With Pilot Light)						
Operation Frequency	1200 operations/hour						
B _{10d}	2,000,000 (EN ISO 13849-1 Annex C Table C.1)						
Mechanical Durability	Position 1⇒2⇒1:1,000,000 operations min Position 1⇒2⇒3⇒1:1,000,000 operations min						
Electrical Durability	100,000 operations min. (Rated operating load) 1,000,000 operations min. (AC/DC 24V 100mA)						
Shock Resistance	Operating Extremes	150m/s ²					
	Damage Limits	1000m/s ²					
Free Fall	1.0 m 1time (Based on IEC60068-2-32)						
Vibration Resistance	Operating Extremes	5 to 55 Hz, half amplitude 0.5 mm					
	Damage Limits	16.7 Hz, half amplitude 1.5 mm					
Degree of Protection	IP66/67	Without Additional switch and Pilot light					
	IP65	With Additional switch and/or Pilot light					
Conditional short-circuit Current	50A (250V)						
Short-Circuit Protective Device	250V AC,10 A Fuse (IEC60127-1)						
Direct Opening Force	60 N minimum (Push monitor Switch)						
Direct Opening Travel	4.7 mm minimum (Push monitor Switch)						
Actuator Strength	500 N minimum (Grip Switch)						
Weight (Approx.)	SG-C1-21 (140g) / SG-C1-21-MM (155g) / SG-C1-21-E (150g) SG-C1-21-EMM (165g) / SG-C1-21-EMK (170g) / SG-C1-21-EG (155g)						
Pilot Light	Rated Operating Voltage	24V DC ±10%					
	Rated Current	15mA					
	Light Source	LED					
	Illumination Color	*: None (Green), R (Red), Y (Yellow), A (Amber), W (White)					

Addition of Information to the Instruction Manual Due to an Update of GS-ET-22, One of the Applicable Standards

CIMJE-SGC1 No.0078-93V

Thank you for purchasing a Panasonic product.

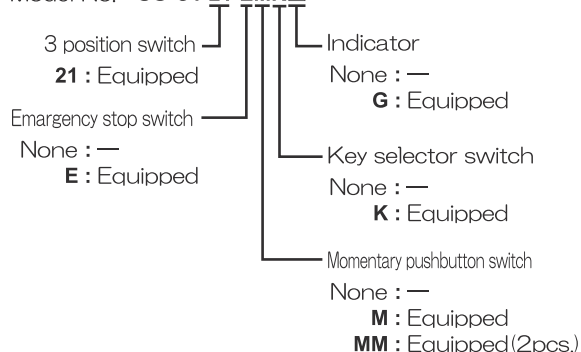
Information on the following items will be added to the Instruction Manual of the SG-C1 series due to an update of GS-ET-22, one of the applicable standards.

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

- Adding the model name information.

Model No. : **SG-C1-21-EMK**□



2 Specifications and Ratings

- Added information about EN 60947-5-8 to "Applicable Standards".
- 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.

Applicable Standards	EN 60947-5-8
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: Enabling Grip Switch

Model Name: SG-C1 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

- EN 60947-5-8:2006

- GS-ET-22:2009

- EN IEC 63000:2018

Panasonic Corporation

Panasonic Industrial Devices SUNX Co., Ltd.

<https://panasonic.net/id/pidsx/global>

Please visit our website for inquiries and about our sales network.

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