PRODUCT NEWS

Product Discontinuation Notices

PCB Power Relays

OMRON

Issue Date
March 1, 2017

No. 2017032CE(ON)

Discontinuation Notice of PCB Power Relay G5SB series.

Product Discontinuation		Recommended Replacement
PCB Power Relays		PCB Power Relays
Model G5SB series	➡	**Model G5Q series**

[Final order entry date]

The end of March, 2018

[Date of The Last Shipping]

The end of June, 2018

[Caution on recommended replacement]

This replacement is compatible. But there are some differences of the rating, and characteristic.
Please confirm the compatibility.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimen-sions	Wire connection	Mounting Dimensions	Charac-teristics	Operation ratings	Operation methods
G5Q-1A	**	**	**	**	*	*	**
G5Q-1A4	**	**	**	**	*	*	**
G5Q-1	**	**	**	**	*	**	**
G5Q-14	**	**	**	**	*	**	**

** : Compatible
* : The change is a little/Almost compatible
-- : Not compatible
- : No corresponding specification

**This document had been distributed by Omron Electronic Components Europe BV.*

[Product Discontinuation and recommended replacement]

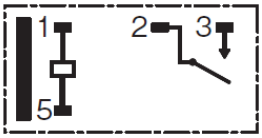
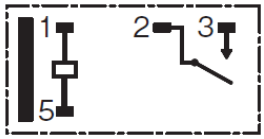
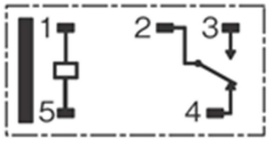
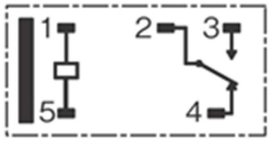
Product discontinuation	Recommended replacement
G5SB-1A DC5 BY OMI	G5Q-1A DC5 BY OMZ
G5SB-1A DC5 BY OMI (N)	G5Q-1A DC5 BY OMZ
G5SB-1A DC9 BY OMI	G5Q-1A DC9 BY OMZ
G5SB-1A DC9 BY OMI (N)	G5Q-1A DC9 BY OMZ
G5SB-1A DC12 BY OMI	G5Q-1A DC12 BY OMZ
G5SB-1A DC12 BY OMI (N)	G5Q-1A DC12 BY OMZ
G5SB-1A DC24 BY OMI	G5Q-1A DC24 BY OMZ
G5SB-1A DC24 BY OMI (N)	G5Q-1A DC24 BY OMZ
G5SB-1A DC48 BY OMI	G5Q-1A DC48 BY OMZ

Product discontinuation	Recommended replacement
G5SB-1A DC48 BY OMI (N)	G5Q-1A DC48 BY OMZ
G5SB-1A4 DC5 BY OMI	G5Q-1A4 DC5 BY OMZ
G5SB-1A4 DC5 BY OMI (N)	G5Q-1A4 DC5 BY OMZ
G5SB-1A4 DC12 BY OMI	G5Q-1A4 DC12 BY OMZ
G5SB-1A4 DC12 BY OMI (N)	G5Q-1A4 DC12 BY OMZ
G5SB-1A4 DC24 BY OMI	G5Q-1A4 DC24 BY OMZ
G5SB-1A4 DC24 BY OMI (N)	G5Q-1A4 DC24 BY OMZ
G5SB-1A4 DC48 BY OMI	G5Q-1A4 DC48 BY OMZ
G5SB-1A4 DC48 BY OMI (N)	G5Q-1A4 DC48 BY OMZ
G5SB-1 DC5 BY OMI	G5Q-1 DC5 BY OMZ
G5SB-1 DC5 BY OMI (N)	G5Q-1 DC5 BY OMZ
G5SB-1 DC9 BY OMI	G5Q-1 DC9 BY OMZ
G5SB-1 DC9 BY OMI (N)	G5Q-1 DC9 BY OMZ
G5SB-1 DC12 BY OMI	G5Q-1 DC12 BY OMZ
G5SB-1 DC12 BY OMI (N)	G5Q-1 DC12 BY OMZ
G5SB-1 DC18 BY OMI	G5QN
G5SB-1 DC18 BY OMI (N)	G5QN
G5SB-1 DC24 BY OMI	G5Q-1 DC24 BY OMZ
G5SB-1 DC24 BY OMI (N)	G5Q-1 DC24 BY OMZ
G5SB-1 DC48 BY OMI	G5Q-1 DC48 BY OMZ
G5SB-1 DC48 BY OMI (N)	G5Q-1 DC48 BY OMZ
G5SB-14 DC5 BY OMI	G5Q-14 DC5 BY OMZ
G5SB-14 DC5 BY OMI (N)	G5Q-14 DC5 BY OMZ
G5SB-14 DC9 BY OMI	G5Q-14 DC9 BY OMZ
G5SB-14 DC9 BY OMI (N)	G5Q-14 DC9 BY OMZ
G5SB-14 DC12 BY OMI	G5Q-14 DC12 BY OMZ
G5SB-14 DC12 BY OMI (N)	G5Q-14 DC12 BY OMZ
G5SB-14 DC18 BY OMI	G5Q-14 DC18 BY OMZ
G5SB-14 DC18 BY OMI (N)	G5Q-14 DC18 BY OMZ
G5SB-14 DC24 BY OMI	G5Q-14 DC24 BY OMZ
G5SB-14 DC24 BY OMI (N)	G5Q-14 DC24 BY OMZ
G5SB-14 DC48 BY OMI	G5Q-14 DC48 BY OMZ
G5SB-14 DC48 BY OMI (N)	G5Q-14 DC48 BY OMZ
G5SB-14-ANI DC5 BY OMI	G5Q-14 DC5 BY OMZ
G5SB-14-ANI DC5 BY OMI (N)	G5Q-14 DC5 BY OMZ
G5SB-14-CB DC12 BY OMI	G5Q-14 DC12 BY OMZ
G5SB-14-CB DC12 BY OMI (N)	G5Q-14 DC12 BY OMZ
G5SB-14-CQC DC12 BY OMI	G5Q-14 DC12 BY OMZ
G5SB-14-CQC DC12 BY OMI (N)	G5Q-14 DC12 BY OMZ
G5SB-14-SS DC12 BY OMI	G5Q-14 DC12 BY OMZ
G5SB-14-SS DC12 BY OMI (N)	G5Q-14 DC12 BY OMZ

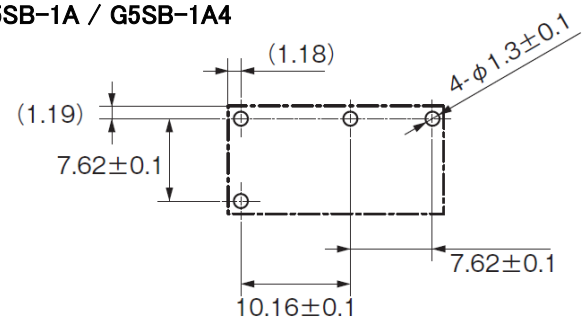
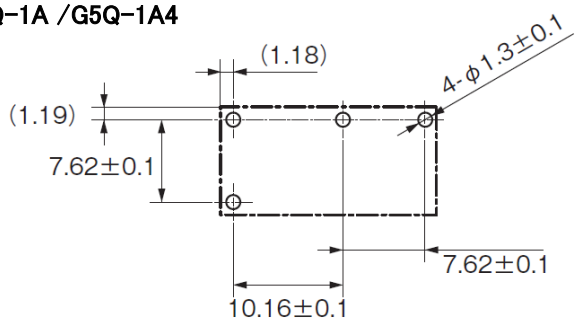
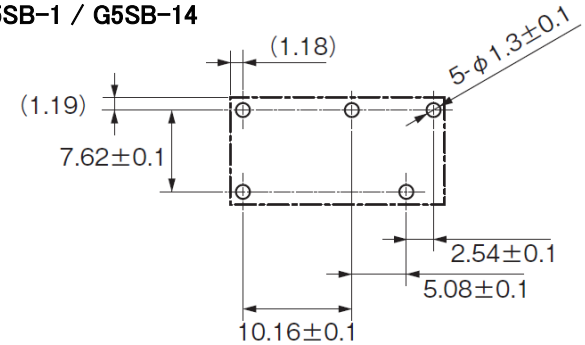
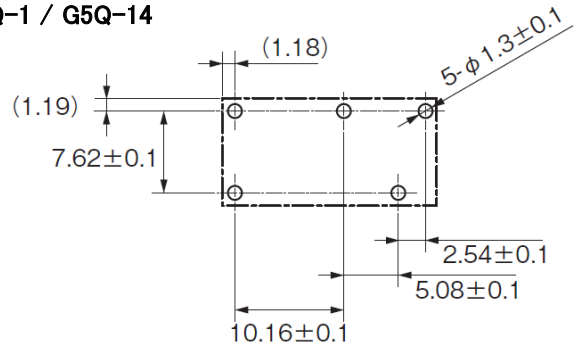
[Body color]

Product discontinuation Model G5SB series	Recommendable replacement Model G5Q series
Black 	Black 

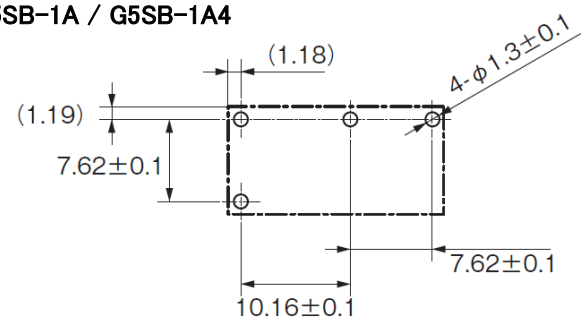
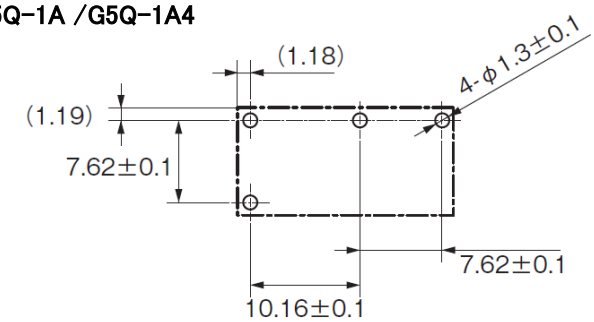
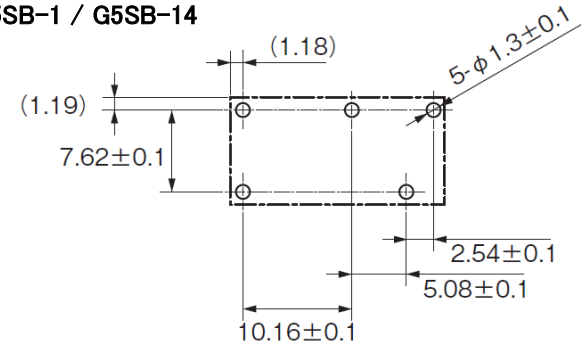
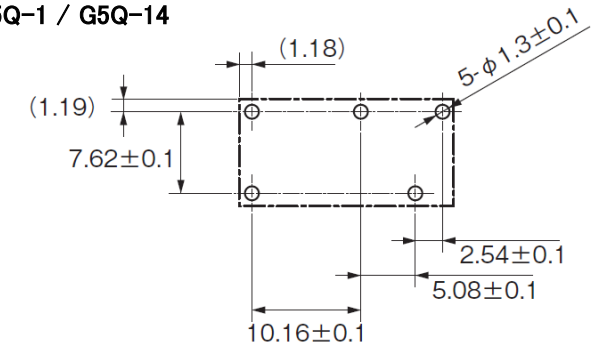
[Wire connection]

Product discontinuation Model G5SB series	Recommendable replacement Model G5Q series
G5SB-1A / G5SB-1A4  	G5Q-1A /G5Q-1A4 
G5SB-14  No coil polarity	G5Q-14  No coil polarity

[Mounting dimensions]

Product discontinuation Model G5SB series	Recommendable replacement Model G5Q series
G5SB-1A / G5SB-1A4  	G5Q-1A /G5Q-1A4 
G5SB-1 / G5SB-14  Bottom view	G5Q-1 / G5Q-14  Bottom view

[Dimensions]

Product discontinuation Model G5SB series	Recommendable replacement Model G5Q series
G5SB-1A / G5SB-1A4  	G5Q-1A /G5Q-1A4 
G5SB-1 / G5SB-14  Bottom view	G5Q-1 / G5Q-14  Bottom view

[Operation ratings]

●Coil

Model		Rated voltage (VDC)	Rated current (mA)	Coil Resistance (Ω)	Must operate voltage (%)	Must release voltage (%)	Max. voltage (%)	Power consumption (mW)
Product discontinuation	G5SB-14	5	80.0	63	75% max.	5% min.	150% (at 23℃)	Approx.400
		9	44.4	202				
		12	33.3	360				
		18	22.2	798				
		24	16.7	1,440				
		48	8.3	5,760				
Recommendable replacement	G5Q-1A G5Q-1A4	5	40.0	125	75% max.	5% min.	190% (at 23℃)	Approx.200
		9	22.2	405				
		12	16.7	720				
		24	8.3	2880				
		48	4.2	11520				
	G5Q-1 G5Q-14	5	80.0	63				Approx.400
		9	44.4	202				
		12	33.3	360				
		18	22.2	798				
		24	16.7	1,440				
		48	8.3	5,760				

●Contacts

Item	Product discontinuation Model G5SB series		Recommendable replacement Model G5Q series	
Model	**G5SB-1A(4)**	**G5SB-1(4)**	**G5Q-1A(4)**	**G5Q-1(4)**
Contact Type	Single			
Contact material	Ag-Alloy(Cd free)			
Rated load (resistive)	3 A (NO)/3 A (NC) at 125 VAC 5 A (NO)/3 A (NC) at 125 VAC 5 A (NO) at 250 VAC 3 A (NC) at 250 VAC 5 A (NO)/3 A (NC) at 30 VDC		N.O AC125V 10A AC250V 3A AC250V 5A AC125V 3A DC30V 5A	N.C AC250V 3A AC125V 3A DC30V 3A
Rated carry current	5A(N.O.)	5A(N.O.)／3A(N.C.)	10A(N.O.)	10A(N.O.)／3A(N.C.)

[Characteristics]

Item		Product discontinuation		Recommendable replacement	
Model		**G5SB-1A(4)**	**G5SB-1(4)**	**G5Q-1A(4)**	**G5Q-1(4)**
Contact resistance *1		100mΩ			
Operate time		10ms max.			
Release time		5ms max.			
Insulation resistance*2		1,000 MΩmax.			
Dielectric strength		AC 4,000V 50/60Hz for 1 min (Between coil and contacts)			
		AC 1,000V 50/60Hz for 1 min (Between contacts of the same polarity)			
Impulse withstand voltage		8kV(1.2 x 50μs) (between coil and contacts)			
Vibration resistance	Destruction	10 to 55 to 10Hz 0.75mm single amplitude (1.5mm double amplitude)			
	Malfunction	10 to 55 to 10Hz 0.75mm single amplitude (1.5mm double amplitude)			
Shock resistance	Destruction	1,000m/s²			
	Malfunction	100m/s²			
Durability	Mechanical	5,000,000 operations (18,000 operations per hour)		10,000,000 operations (18,000 operations per hour)	
	Electrical	N.O (resistive load) 50,000 operations: 5 A at 250 VAC (operation: ON for 1 sec, OFF for 1 sec) N.C (resistive load) 100,000 operations: 3 A at 250 VAC (operation: ON for 1 sec, OFF for 1 sec) N.O/N.C(resistive load) 200,000 operations: 3A(N.O)/3A(N.C) at 125 VAC 50,000 operations: 5A(N.O)/3A(N.C) at 125 VAC 100,000 operations: 5A(N.O)/3A(N.C) at 30 VDC (operation: ON for 1 sec, OFF for 1 sec)		N.O (resistive load) 50,000 operations: 10 A at 125 VAC (operation: ON for 1 sec, OFF for 3 sec) 100,000 operations: 3 A at 250 VAC 200,000 operations: 3 A at 125 VAC 50,000 operations: 5 A at 250 VAC 100,000 operations: 5 A at 30 VDC (operation: ON for 1 sec, OFF for 1 sec) N.C (resistive load) 100,000 operations: 3 A at 250 VAC 200,000 operations: 3 A at 125 VAC 100,000 operations: 3 A at 30 VDC (operation: ON for 1 sec, OFF for 1 sec)	
Failure rate (P level) (reference value)		DC5V 10mA (This value was measured at a switching frequency of 120 operations/min.)			
Ambient operating temperature		-40 °C to 70 °C (with no icing or condensation)		-40 °C to 105 °C (with no icing or condensation)	

Note. The data shown above are initial values.

*1 The contact resistance is possible with 1 A applied at 5 VDC using a fall-of-potential method.

*2. Testing conditions: The insulation resistance was measured with a 500 VDC meg ohmmeter at the same locations as the dielectric strength was measured.

[Operation methods]

Product discontinuation Model G5SB series	Recommendable replacement Model G5Q series
There is not changing of operation methods.	

Specifications and prices in this product news are as of the issue date and are subject to change without notice.
Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.