OMRON ELECTRONIC COMPONENTS
ENGINEERINGUPDATE

PRODUCTCHANGE NOTIFICATION

NO:	**REL-169**	**PRODUCT:**	**G6DS Series**
DATE:	**March 2016**	**TYPE:**	**Discontinuation Notice**

G6DS Series to be DISCONTINUED in 2017

Based upon a diminishing demand for the **G6DS** PCB Power Relays, OMRON will discontinue **ALL** G6DS models and all associated accessories in 2017. For new designs, Omron suggests consideration of the newly released **G6DN** relays, which despite different body dimensions and PCB Layout, can be considered to be functional equivalents. Please carefully read through this notification and note the differences. The following details will fully explain the discontinuation and replacement considerations; should you have any additional questions, however, please communicate with the Relay Product Specialist.

Product Discontinuation		**Suggested Replacement**
PCB Power Relays	→	PCB Power Relays
Model G6DS Series		**Model G6DN Series**

NOTE: Nomenclature for the G6DS may or may not include "BY OMI" at the end of the part numbers, within the Omron Computer System.
This is a factory designation and has no bearing on the specifications.

LAST Order date

November 30, 2017

Caution on suggested replacement:

There are differences between the rated loads, PCB Layout and body dimensions.
→ Therefore, please consider the suggested replacement carefully, for new designs.

G6DN -- Differences from discontinued product:

Suggested replacement Model	Body Color	Dimen -sions	Wire connection	Mounting Dimensions	Charact -eristics	Operation ratings	Operation methods
Model G6DN	**	*	--	*	*	*	**

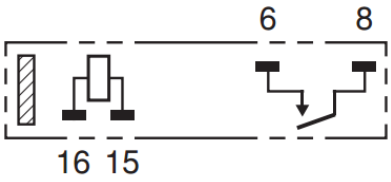
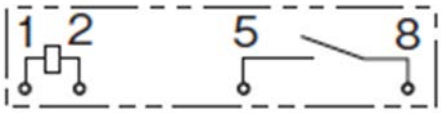
**** : Compatible**
*** : The change is a little/Almost compatible**
-- : Not compatible
- : No corresponding specification

* Sales teams should communicate this discontinuation with their OEM's and CEM's.
For further technical support and any questions, please communicate with Product Marketing.

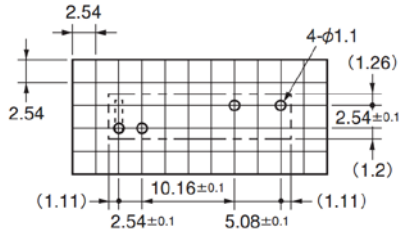
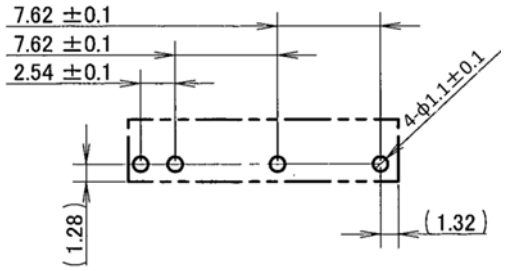
Body color:

Discontinued Product Model G6DS Series	Suggested Replacement Model G6DN Series
Black 	**Black** 

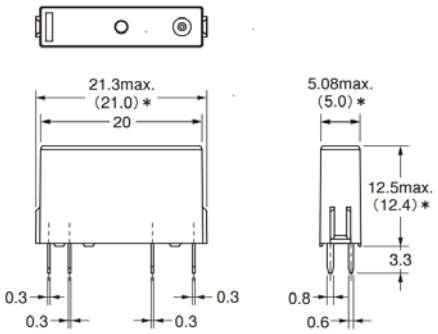
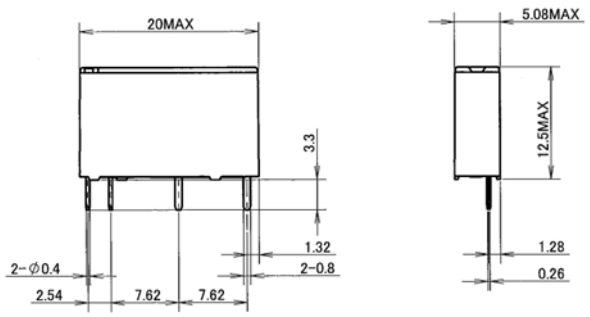
Wire connection:

Discontinued Product Model G6DS Series	Suggested Replacement Model G6DN Series
BOTTOM VIEW  No coil polarity	BOTTOM VIEW  No coil polarity

Mounting dimensions:

Discontinued Product Model G6DS Series	Suggested Replacement Model G6DN Series
BOTTOM VIEW  Tolerance : ±0.1mm	BOTTOM VIEW  Tolerance : ±0.1mm

Dimensions:

Discontinued Product Model G6DS Series	Suggested Replacement Model G6DN Series
Average Value 	Average Value 

Characteristics and Operation ratings:

Item		Discontinued Product Model G6DS Series		Suggested Replacement Model G6DN Series
		Standard	High-sensitivity	
Coil Rating				
Rated Voltage(VDC)		5V, 12V, 24V		5V, 12V, 24V
Operate voltage(%)		70% max. When the relay is installed upside down, the must operate voltage is less than 75%		70% max. The must operate voltage is less than 72% when the relay is sideways and the marking is right way.
Release voltage		5% min.		5% min.
Maximum voltage		160% (at 23°C)		160% (at 23°C)
Power consumption		Approx. 180 mW	Approx. 120 mW	Approx. 110 mW
Contact Rating				
Contact type		Single		Crossbar twin
Contact material		Ag Alloy = Au		Ag Alloy + Au (Only stationary contact)
Rated load	(Resistive)	5A at 250VAC / 5A at 30VDC		5A at 250VAC / 5A at 30VDC
	(Inductive)	2A at 250VAC (cos ϕ = 0.4) / 2A at 30VDC (L/R = 7 mS)		- - - - -
Rated carry current		5A		5A
Minimum Permissible Load (Failure Rate / P-Level. Reference value)		5 mA at 24 VDC		0.1mA at 0.1VDC
Characteristics				
Contact resistance (See note 1)		100 mΩ max.		100 mΩ max.
Operate time		10 ms max.		10 ms max.
Release time		5 ms max.		5 ms max.
Insulation resistance (See note 2)		1,000 MΩ min.		1,000 MΩ min.
Dielectric strength		3,000 VAC, 50/60Hz for 1min. between coil and contacts 750 VAC, 50/60Hz for 1min. between contacts of same polarity		3,000 VAC, 50/60Hz for 1min. between coil and contacts 750 VAC, 50/60Hz for 1min. between contacts of same polarity
Impulse withstand voltage Between contacts of the same polarity		6,000 V (1.2×50μs)		6,000 V (1.2×50μs)
Vibration resistance	Destruction	10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)		10 to 55 to 10 Hz, 2.5 mm single amplitude (5 mm double amplitude)
	Malfunction	10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)		10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)
Shock resistance	Destruction	1,000 m/s^2		1,000 m/s^2 (approx.100G)
	Malfunction	150 m/s^2	130 m/s^2	100 m/s^2 (approx.10G)
Service Life	Mechanical	20,000,000 operations min.		20,000,000 operations min.
	Electrical	100,000 ops min.: 5A at 250VAC /30VDC, 1800 operations an hour 100,000 ops min.: 2A at 250VAC (cosϕ=0.4), 1800 operations an hour 100,000 ops min.: 2A at 30VDC (L/R=7ms), 1800 operations an hour	80,000 ops min.: 5A at 250VAC /30VDC, 1800 operations an hour 100,000 ops min.: 2A at 250VAC (cosϕ=0.4), 1800 operations an hour 100,000 ops min.: 2A at 30VDC (L/R=7ms), 1800 operations an hour	100,000 operations min. 3A at 250VAC, 30VDC at 1,800 ops/hr 80,000 operations min. 5A at 250VAC, 30VDC at 1,200 ops/hr
Ambient operating temperature		-40°C to 85°C (with no icing or condensation)		-40°C to 90°C (with no icing or condensation)

Note: Values in the above table are initial values

Note 1: The contact resistance is measured with 1 A applied at 5 VDC using a fall-of-potential method.

Note 2: The insulation resistance is measured between coil and contacts and between contacts of the same polarity at 500 VDC.

Operation methods

Discontinued Product Model G6DS Series	Suggested Replacement Model G6DN Series
No difference	

Discontinued product and suggested replacement:

NOTE: Nomenclature for the G6DS may or may not include “BY OMI” at the end of the part numbers, within the Omron Computer System. This is a factory designation and has no bearing on the specifications.

Discontinued Product Model G6DS Series	Suggested Replacement Model G6DN Series
P6DS-04P BY OMI	No recommended replacement
G6DS-1A-N DC12 BY OMI	G6DN
G6DS-1A-H-OM DC24 BY OMI	G6DN-1A DC24
G6DS-1A-H DC6 BY OMI	G6DN
G6DS-1A-H DC5 BY OMI	G6DN-1A DC5
G6DS-1A-H DC24 BY OMI	G6DN-1A DC24
G6DS-1A-H DC20 BY OMI	G6DN
G6DS-1A-H DC12 BY OMI	G6DN-1A DC12
G6DS-1A-ASI DC24 BY OMI	G6DN
G6DS-1A-ASI DC12 BY OMI	G6DN
G6DS-1A DC5 BY OMI	G6DN-1A DC5
G6DS-1A DC24 BY OMI	G6DN-1A DC24
G6DS-1A DC12 BY OMI	G6DN-1A DC12
R99-01 FOR G6DS	No recommended replacement

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