

# MARKETINGUPDATE

NO: DATE: REL-137 June 2013 PRODUCT: TYPE: G5LE-G Power PCB Relay Product DISCONTINUATION

# G5LE-G Power PCB Relays to be DISCONTINUED December 30, 2013

Based upon a diminishing demand for the G5LE-G series relay, OMRON will discontinue this model at the end of the year. With its improved production efficiencies, the standard G5LE model will be the recommended replacement. The standard model is **not** a direct replacement, however, so please carefully read through 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 Product Manager, Mr. Jason Lipps.



### LAST Order date

September 29, 2013

### **Caution on recommended replacement:**

Although not a drop-in replacement, we recommend the standard G5LE model which has closely rated performance specifications.

### **G5LE Differences from discontinued product:**

| Recommended replacement<br>Model | Body Color | Dimen<br>-sions | Wire connection | Mounting<br>Dimensions | Charact<br>-eristics | Operation<br>ratings | Operation<br>methods |
|----------------------------------|------------|-----------------|-----------------|------------------------|----------------------|----------------------|----------------------|
| G5LE                             | **         | **              | **              | **                     | *                    |                      |                      |

\*\* : Compatible

\* : The change is a little/Almost compatible

--: Not compatible

- : No corresponding specification

# Discontinued product and recommended replacement:

| Discontinued product  | Recommended replacement |
|-----------------------|-------------------------|
| G5LE-1A-G DC5 BY OMB  | G5LE-1A DC5 BY OMB      |
| G5LE-1A-G DC9 BY OMB  | G5LE-1A DC9 BY OMB      |
| G5LE-1A-G DC12 BY OMB | G5LE-1A DC12 BY OMB     |
| G5LE-1A-G DC20 BY OMB | G5LE-1A DC20 BY OMB     |
| G5LE-1A-G DC24 BY OMB | G5LE-1A DC24 BY OMB     |
| G5LE-1-G DC5 BY OMB   | G5LE-1 DC5 BY OMB       |
| G5LE-1-G DC9 BY OMB   | G5LE-1 DC9 BY OMB       |
| G5LE-1-G DC12 BY OMB  | G5LE-1 DC12 BY OMB      |
| G5LE-1-G DC20 BY OMB  | G5LE-1 DC20 BY OMB      |
| G5LE-1-G DC24 BY OMB  | G5LE-1 DC24 BY OMB      |

# Body color:

| Discontinued product Model G5LE-G | Recommended replacement<br>Model G5LE |  |  |
|-----------------------------------|---------------------------------------|--|--|
| Black                             | Same as on the left                   |  |  |

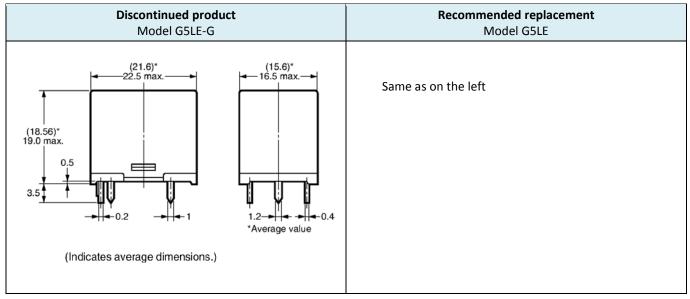
### Wire connection:

|                              | ued product<br>l G5LE-G                      | Recommended replacement<br>Model G5LE             |
|------------------------------|--|---|
| Contact configuration and in | dication of operation                        | Contact configuration and indication of operation |
| SPDT (1c)                    | SPST-NO (1a)                                 | Same as on the left                               |
|                              |  |   |
| Note. Orientation mark       | s are indicated as follows:[_] [∅<br>I VIEW) |   |

### Mounting dimensions:

| Discontinued product<br>Model G5LE-G   | Recommended replacement<br>Model G5LE |
|--|---------------------------------------|
| Mounting Holes   | Mounting Holes                        |
| SPDT (1c)<br>Five, 1.3 <sup>62</sup> / <sub>9</sub> dia. holes<br>(2.25)<br>(2.55) 2 (5.75) (2.25)<br>SPST-NO (1a)<br>Four, 1.3 <sup>62</sup> / <sub>9</sub> dia. holes<br>Four, 1.3 <sup>62</sup> / <sub>9</sub> dia. holes<br>(2.25)<br>(2.25) 2 (5.75) (2.25) | Same as on the left                   |
| (Indicates average dimensions.)<br>Note. Orientation marks are indicated as follows:   |                                       |
| (BOTTOM VIEW)  |                                       |

#### **Dimensions:**



### Characteristics, Operation ratings, and Operation method:

| Item                      | Discontinued product<br>Model G5LE-G   | Recommended replacement<br>Model G5LE  |
|---------------------------|--|--|
| ■Characteristics          |  |  |
| Contact resistance        | 100mΩ max.   | 100mΩ max.   |
| Operate time              | 10ms max.  | 10ms max.  |
| Release time              | 5ms max  | 5ms max  |
| Bounce time               | Operate: Approx. 0.6ms   | Operate: Approx. 0.6ms   |
|                           | Release: Approx. 7.2ms   | Release: Approx. 7.2ms   |
| Max. switching frequency  | Mechanical: 18,000 operations./hr  | Mechanical: 18,000 operations./hr<br>Electrical: 1,800 operations./hr<br>(under rated load)  |
| Insulation resistance     | 100 MΩ min. (at 500 VDC)   | 100 MΩ min. (at 500 VDC)   |
|                           | 1500VAC, 50/60Hz for 1min.   | 750VAC, 50/60Hz for 1min.  |
| Dielectric strength       | between contacts of same polarity  | between contacts of same polarity  |
| Ū.                        | 2,000 VAC 50/60Hz for 1min.  | 2,000 VAC 50/60Hz for 1min.  |
|                           | between coil and contacts.   | between coil and contacts.   |
| Impulse withstand voltage | 4,500V between coil and contacts,<br>1.2X50µsec  | 4,500V between coil and contacts   |
| Vibration resistance      | Destruction: 10 to 55 Hz, 1.5 mm<br>double amplitude<br>Malfunction: 10 to 55 Hz, 1.5 mm<br>double amplitude | Destruction: 10 to 55 Hz, 1.5 mm<br>double amplitude<br>Malfunction: 10 to 55 Hz, 1.5 mm<br>double amplitude                           |
| Shock resistance          | Destruction: 1,000 m/s2 (approx. 100G)   | Destruction: 1,000 m/s2 (approx. 100G)   |
|                           | Malfunction: 100 m/s2 (approx. 10G)  | Malfunction: 100 m/s2 (approx. 10G)  |
| Life expectancy           | Mechanical: 10,000,000 operations min.<br>(at 18,000 operations/hr)  | Mechanical: 10,000,000 operations min.<br>(at 18,000 operations/hr)<br>Electrical: 100,000 operations min.<br>(at 1,800 operations/hr) |
| Ambient temperature       | Operating: -40℃ to 85℃   | Operating: -40℃ to 85℃ (-13°F to 185°F)  |
| Ambient humidity          | Operating: 35% to 85%  | Operating: 35% to 85%  |
| Weight                    | Approx. 12g  | Approx. 12g (0.42 oz)  |

| Note; Values in the above table are the initial values. |  |  |
|---|--|--|
| ■Approved Standards                                     | UL: File No.E41643<br>CSA: File No.LR31928<br>VDE Reg. No.6850 | UL: File No.E41643<br>CSA: File No.LR31928<br>VDE Reg. No.6850<br>TÜV: File No.R50158258 |
| <ul><li>Ratings</li><li>Contact Ratings</li></ul>       |  |  |
| Load  | Resistive load (cos φ=1)                                       | Resistive load (cos φ=1)   |
| Rated load  | 10A at 35VDC   | 10A at 120VAC; 8A at 30VDC   |
| Rated carry current                                     | 10A  | 10A  |
| Max. switching voltage                                  | 35VDC  | 250VAC, 125VDC   |
| Max. switching current                                  | DC:10A   | AC:10A   |
|   |  | DC:8A  |
| Max. switching capacity                                 | 350W   | 1,200VA, 240W  |
| MIN. permissible load                                   | 100mA at 5VDC  | 100mA at 5VDC  |

|                                     |                                     | atings<br>Ratings          |                   |         |
|-------------------------------------|-------------------------------------|----------------------------|-------------------|---------|
| 700-mW Type (G5LE-G)                | Product discontir                   | nuation G                  | 5LE-G             |         |
| Rated voltage                       | 9 VDC                               | 12 VDC                     | 20 VDC            | 24 VDC  |
| Rated current                       | 77.8 mA                             | 58.3 mA                    | 35.0 mA           | 29.2 mA |
| Coil resistance                     | 115.7 Ω                             | 205.7 Ω                    | 571.4 Ω           | 822.9 Ω |
| Must operate voltage                | 75% of rated voltage (              | max.)                      | •                 |         |
| Must release voltage                | 10% of rated voltage (              | min.)                      |                   |         |
| Max. voltage                        | 120% of rated voltage               | at 85°C, 150% of rated     | d voltage at 23°C |         |
| Power consumption                   | Approx. 700 mW                      |                            |                   |         |
| Note: The rated current and coil re | sistance are measured at a coil tem | perature of 23°C with a to | plerance of ±10%. |         |

#### Recommendable replacement G5LE

| Rated voltage        | 3 VDC   | 5 VDC       | 6 VDC   | 9 VDC | 12 VDC  | 24 VDC  | 48 VDC  |  |
|----------------------|---|-------------|---------|-------|---------|---------|---------|--|
| Rated current        | 136.4 mA  | 79.4 mA     | 66.7 mA | 45 mA | 33.3 mA | 16.7 mA | 8.33 mA |  |
| Coil resistance      | 22.5 Ω  | <b>63</b> Ω | 90 Ω    | 200 Ω | 360 Ω   | 1,440 Ω | 5,760 Ω |  |
| Must operate voltage | 75% of rated voltage (max.)   |             |         |       |         |         |         |  |
| Must release voltage | 10% of rated voltage (min.)   |             |         |       |         |         |         |  |
| Max. voltage         | 130% of rated voltage at 70°C (158°F), 170% of rated voltage at 23°C (73°F) |             |         |       |         |         |         |  |
| Power consumption    | Approx. 400 mW  |             |         |       |         |         |         |  |

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with a tolerance of ±10%.

2. 360 mW coil is available. Contact Omron for details.

3. VDE approved model available. Contact Omron for details.

\* 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.