

# G8W

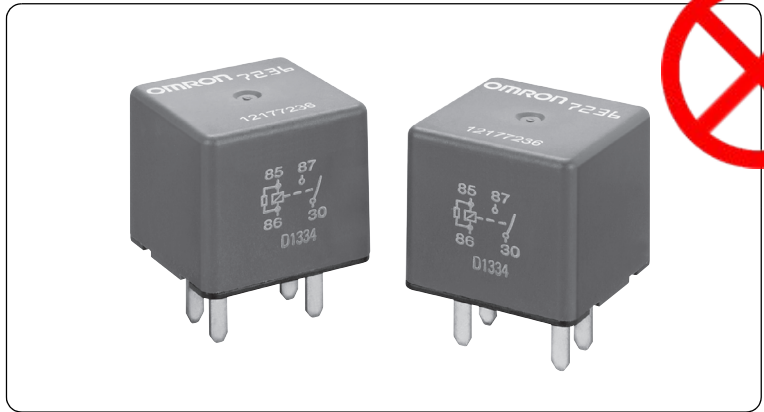
Automotive Mini 280 relay

This announcement is based on product catalogue information previously shown before its discontinuation.

Product information of the existing product may be different from this version.

## Mini 280 terminal layout

- Both SPST and SPDT available
- Plug-in and weatherproof type
- L x W x H = 28 x 28 x 25.5 mm nominal
- 280-terminal type 2.8 x 0.82 mm
- Full automated assembly



### ■ Type standard

G8W-□□□□-□-□

① ② ③ ④ ⑤ ⑥

|   | Classification          | Symbol | Meaning of the symbol           |
|---|-------------------------|--------|---------------------------------|
| ① | Number of contact poles | 1      | Number of contact poles         |
| ② | Contact structure       | A      | 1a contact                      |
|   |                         | C      | 1c contact                      |
| ③ | Protective structure    | 6      | Unsealed (Weather proof type)   |
|   |                         | 7      | Unsealed (In a case)            |
| ④ | Terminal form           | T      | Plug-in type                    |
| ⑤ | Bracket                 | -      | Standard case                   |
|   |                         | F      | Metal bracket + Connector guide |
| ⑥ | Surge suppressor        | R      | Built-in resistor               |

### ■ Classification

| Classification | Terminal form        | Contact structure | Protective structure          | Rated coil  |                | Type                | Bracket                         |
|----------------|----------------------|-------------------|-------------------------------|-------------|----------------|---------------------|---------------------------------|
|                |                      |                   |                               | Voltage (V) | Resistance (Ω) |                     |                                 |
| Mini 280       | Plug-in 280 terminal | SPST (1a)         | Unsealed (Weather proof type) | DC12        | 78             | <b>G8W-1A6T-F-R</b> | Metal bracket + Connector guide |
|                |                      |                   | Unsealed (In a case)          |             |                | <b>G8W-1A7T-R</b>   | Standard plug-in                |
|                |                      | SPDT (1c)         | Unsealed (Weather proof type) |             |                | <b>G8W-1C6T-F-R</b> | Metal bracket + Connector guide |
|                |                      |                   | Unsealed (In a case)          |             |                | <b>G8W-1C7T-R</b>   | Standard plug-in                |

Please confirm Omron Safety Precautions for all automotive relays first.

Omron can not guarantee automotive relays before finish making a contract with product specifications.

OMRON

## ■ Ratings

### ● Operation coil

| Rated voltage (V) | Coil resistance (Ω) |               |                             | Rated current (mA) | Operating voltage (V) | Release voltage (V) | Service voltage range (V) | Rated power consumption (mW) |
|-------------------|---------------------|---------------|-----------------------------|--------------------|-----------------------|---------------------|---------------------------|------------------------------|
|                   | Between terminals   | Internal coil | Surge suppressor resistance |                    |                       |                     |                           |                              |
| DC 12             | 78                  | 88            | 1/2W 680                    | 154                | 8.0 or less           | 1.0 or more         | DC10 to 16                | 1846                         |

### ● Switching area

| Item                           | Performance  |                      |
|--------------------------------|--------------|----------------------|
| Contact material               | Silver alloy |                      |
| Rated voltage                  | DC12V        |                      |
| Rated load                     | N.O. side    | Resistance load, 35A |
|                                | N.C. side    | Resistance load, 20A |
| Inrush current                 | N.O. side    | 120A                 |
|                                | N.C. side    | 40A                  |
| Continuous carry current*1     | N.O. side    | 35A                  |
|                                | N.C. side    | 20A                  |
| Min. Carry / Switching Current | DC12V 1A     |                      |

## ■ Performance

| Item                           | Standard value                     |                                  |
|--------------------------------|------------------------------------|----------------------------------|
| Voltage drop between terminals | N.O. side                          | 50mV or less, 10A                |
|                                | N.C. side                          | 50mV or less, 10A                |
| Operating time*2               | Max. 10ms at 14V (Normally 5.6 ms) |                                  |
| Release time*2                 | Max. 10ms at 14V (Normally 1.4 ms) |                                  |
| Insulation resistance*3        | Between coil and terminal          | 20MΩ or more                     |
|                                | Between homopolar contacts         | 20MΩ or more                     |
| Withstand voltage*4            | Between coil and terminal          | AC500V, for 1minute              |
|                                | Between homopolar contacts         | AC500V, for 1minute              |
| Vibration tolerance            | Durability                         | 33Hz 43.1m/s <sup>2</sup>        |
|                                | Malfunction                        | 20 to 500Hz 43.1m/s <sup>2</sup> |
| Mechanical endurance           | 1,000,000 times                    |                                  |
| Electrical endurance           | 100,000 times                      |                                  |
| Ambient temperature            | -40 to +125°C                      |                                  |
| Ambient humidity               | 35 to 95%RH                        |                                  |
| Weight                         | Approx. 34.0g                      |                                  |

## ■ Packing

| Packing form | Tray                      |
|--------------|---------------------------|
| MOQ*5        | 336pcs (48pcs to 7 trays) |

Note: All values above are measured in early time under an ambient temperature of +20°C and humidity of 65% unless stated.

- \*1. The value stated is at maximum temperature in a guaranteed ambient temperature.
- \*2. Bounce time is not included.
- \*3. Measured at DC500V.
- \*4. Measured under 1mA of leak current, 50/60Hz for 1minute.
- \*5. Minimum Order Quantity is subject to change, please feel free to contact our sales representatives.

Please confirm Omron Safety Precautions for all automotive relays first.  
Omron can not guarantee automotive relays before finish making a contract with product specifications.

# G8W

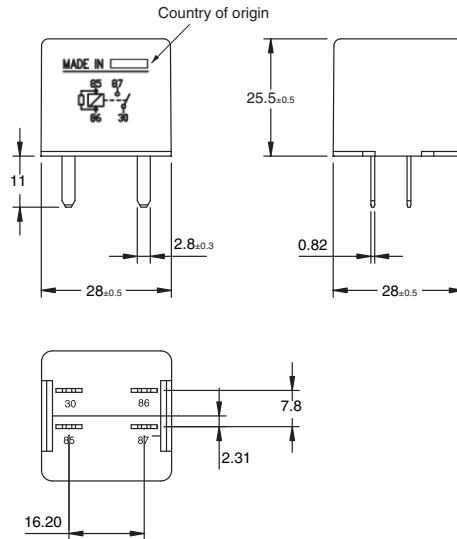
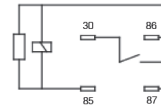
This announcement is based on product catalogue information previously shown before its discontinuation.  
Product information of the existing product may be different from this version.

## ■ Dimensions (Unit: mm)

### G8W-1A7T-R



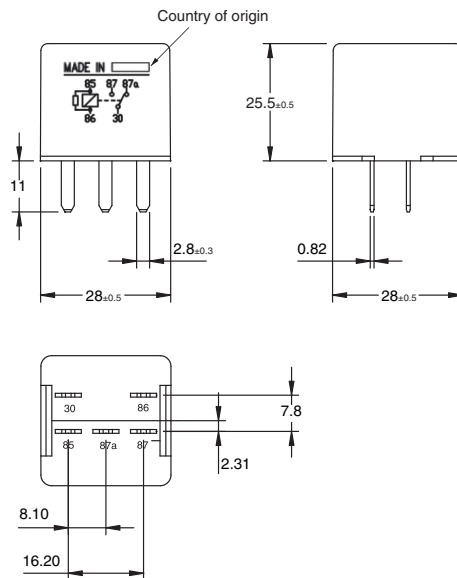
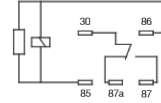
#### Terminal arrangement / Internal connections (BOTTOM VIEW)



### G8W-1C7T-R



#### Terminal arrangement / Internal connections (BOTTOM VIEW)



Tolerance unless otherwise specified  
Less than 1 mm: ±0.1 mm  
Less than 1 to 3 mm: ±0.2 mm  
3 mm or more: ±0.3 mm

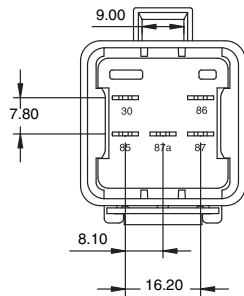
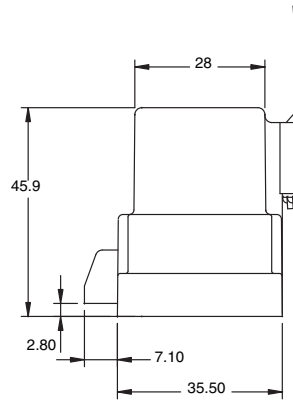
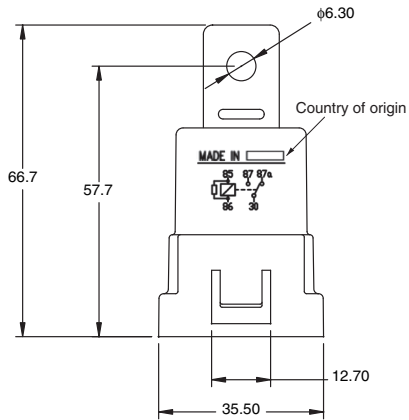
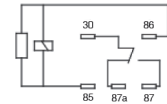
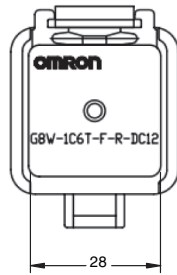
Please confirm Omron Safety Precautions for all automotive relays first.  
Omron can not guarantee automotive relays before finish making a contract with product specifications.

# G8W

This announcement is based on product catalogue information previously shown before its discontinuation.  
Product information of the existing product may be different from this version.

G8W-1A6T-F-R  
G8W-1C6T-F-R

Terminal arrangement /  
Internal connections  
(BOTTOM VIEW)



Tolerance unless otherwise specified  
Less than 1 mm:  $\pm 0.1$  mm  
Less than 1 to 3 mm:  $\pm 0.2$  mm  
3 mm or more:  $\pm 0.3$  mm

Please confirm Omron Safety Precautions for all automotive relays first.  
Omron can not guarantee automotive relays before finish making a contract with product specifications.