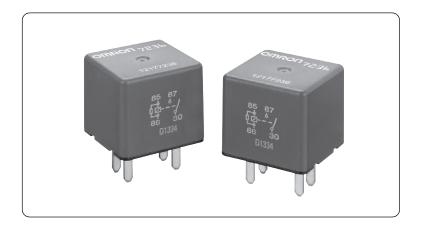
# **G8W**Automotive Mini 280 relay

# 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



	Classification	Symbol	Meaning of the symbol	
1	Number of contact poles	1	Number of contact poles	
(2)	Contact structure	Α	1a contact	
2		С	1c contact	
(3)	Protective structure	6	Unsealed (Weather proof type)	
9		7	Unsealed (In a case)	
4	Terminal form	Т	Plug-in type	
(5)	Bracket	-	Standard case	
9		F	Metal bracket + Connector guide	
6	Surge suppressor	R	Built-in resistor	

#### **■** Classification

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

### ■ Ratings

#### Operation coil

Rated	Coil resistance ( $\Omega$ )			Rated	Operating	Release	Service voltage	Rated power
voltage (V)	Between terminals	Internal coil	Surge suppressor resistance	current (mA)	voltage (V)	voltage (V)	range (V)	consumption (mW)
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		
nateu loau	N.C. side	Resistance load, 20A		
Inrush current	N.O. side	120A		
musii current	N.C. side	40A		
Continuous carry	N.O. side	35A		
current*1	N.C. side	20A		
Min. Carry / Switchin	g 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	20M $\Omega$ or more		
	Between homopolar contacts	$20 \mathrm{M}\Omega$ or more		
Withstand voltage*4	Between coil and terminal	AC500V, for 1 minute		
	Between homopolar contacts	AC500V, for 1 minute		
NO. 12. 1.1	Durability	33Hz 43.1m/s²		
Vibration tolerance	Malfunction	20 to 500Hz 43.1m/s <sup>2</sup>		
Mechanical endurar	nce	1,000,000 times		
Electrical endurance	9	100,000 times		
Ambient temperatur	е	−40 to +125°C		
Ambient humidity		35 to 95%RH		
Weight		Approx. 34.0g		

#### ■ Packing

Packing form	Tray
MOQ <sup>*5</sup>	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.

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

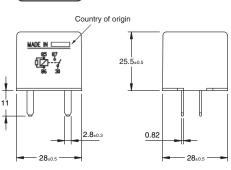
Please confirm Omron Safety Precautions for all automotive relays first. Omron can not guarantee automotive relays before finish making a contract with product specifications.

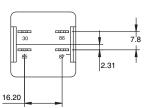
## ■ Dimensions (Unit: mm)

#### G8W-1A7T-R









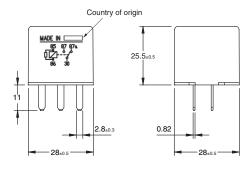
#### Terminal arrangement / Internal connections (BOTTOM VIEW)

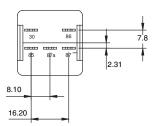


#### G8W-1C7T-R









Terminal arrangement / Internal connections (BOTTOM VIEW)



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

3 mm or more: ±0.3 mm

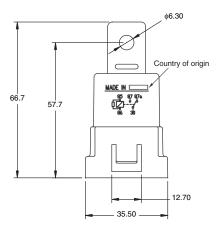
Terminal arrangement / Internal connections

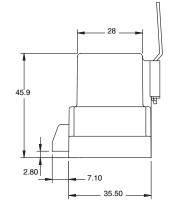
(BOTTOM VIEW)

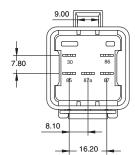
G8W-1A6T-F-R G8W-1C6T-F-R











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