G9EB-1-B-AQ

DC Power Relay (20A type)

Capable of Interrupting High-voltage, High-current Loads

- **Utilize a unique gas-filled, fully sealed, non-ceramic construction achieved by using resin with a metal case. This reduces the need for special processing and materials that were required with previous models, and it result in cost-saving, downsizing and lightweight.**
- **Our own design of permanent magnet for ark blowout achieved a nonpolar on the main contact circuit (contact terminal). This improves ease of wiring and installation, and become a foolproof to pretend incorrect wiring.**

■ Type standard

G9EB-□-□-□-□

① ② ③ ④

	Classification	Symbol	Symbol Meaning of the symbol
①	Number of contact poles	1	1 pole
②	Contact structure	Blank	1a contact
③	Coil terminal form	B	M4 screw terminal
④	Automotive use	AQ	Available for automotive use

■ Classification

Classification	Terminal form		Contact structure	Rated coil voltage	Type name
	Coil terminals	Contact terminals			
Switching / current conduction type	Screw terminals	Screw terminals	1a	DC12V DC24V	**G9EB-1-B-AQ**

Note:1. Come with two M4 screws for main terminals(contacts).
2. Come with two M4 screws for screw-type coil terminal products.

■ Ratings

● Operation coil

Rated voltage (V)	Rated current (mA)	Coil resistance (Ω)	Operating voltage (V)	Release voltage (V)	Maximum voltage (V)	Power consumption (W)
DC 12	207	58	75% or less of rated voltage	8% or more of rated voltage	130% of rated voltage (at 23°C within 10min.)	Approx. 2.5
DC 24	104	230.4				

Note:1. Values of the rated current and the coil resistance are at coil temperature of +23°C, and have a tolerance of ±10%
2. The figures for the operating characteristics are at a coil temperature of 23°C.
3. Value of the maximum voltage is the maximum voltage that can be applied to the relay coil.

● Switching area

Item	Resistance load
	G9EB-1-B-AQ
Rated load	DC400V 20A
Rated current	25A(at ambient temperature of 70°C) 20A(at ambient temperature of 85°C)
Maximum switching voltage	400V
Maximum switching current	25A

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■ Performance

Item		G9EB-1-B
Contact resistance *1		30 mΩ or less
Contact voltage drop		0.1V or less (at 25A)
Operating time		30 ms or less
Release time		15 ms or less
Insulation resistance*2	Between coil and contacts	1,000 MΩ or more
	Between homopolar contacts	1,000 MΩ or more
Withstand voltage	Between coil and contacts	AC2,500V for 1min.
	Between homopolar contacts	AC2,500V for 1min.
Vibration tolerance	Durability	5 to 200 to 5Hz Single amplitude 0.75mm (Acceleration: 2.94 to 88.9m/s²)
	Malfunction	5 to 200 to 5Hz Single amplitude 0.75mm (Acceleration: 2.94 to 88.9m/s²)
Shock resistance	Durability	490 m/s²
	Malfunction	100 m/s²
Mechanical endurance *3		100,000 times or more
Electrical endurance *4	Resistance load	DC250V 25A 30,000times or more
		DC400V 20A 5,000times or more
	Condenser load	DC400V 35A(Inrush) 70,000 times or more
Short time carry current		40A (for 10 min)
		50A (for 5 min)
Maximum interruption current		DC250V 100A (5 times)
Overload interruption		DC250V 50A (50 times or more)
Minimum load current		1A
Ambient temperature		−40 to +85°C (with no icing or condensation)
Ambient humidity		5% to 85%RH
Weight (including accessories)		Approx. 135g

Note: All values above are in early time under an ambient temperature of +23°C unless stated.
*1. Measurement condition: By voltage drop method at DC5V 1A.
*2. Measurement condition: By insulation resistance at DC500V.
*3. Test condition / Switching frequency: 3,600 times/hour.
*4. Test condition / Switching frequency: 60 times/hour.

■ Dimensions (Unit: mm)

●Relay with Screw Terminals

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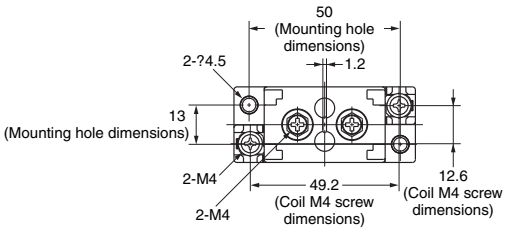
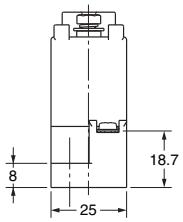
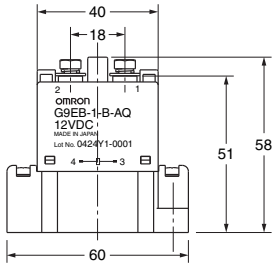
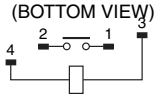
Size (mm)	Tolerance (mm)
to 10	±0.3
10 to 50	±0.5
50 to	±1



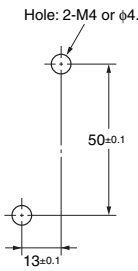




Terminal arrangement / Internal connections
(BOTTOM VIEW)



Mounting holes
(BOTTOM VIEW)



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