

EP1 SERIES

FEATURES

- 33% less relay space than conventional relays (MR301 Series)
- High performance & productivity by unique structure
- Flux tight housing
- Delivered in stick-tube for automatic insertion machine
- Washable type available

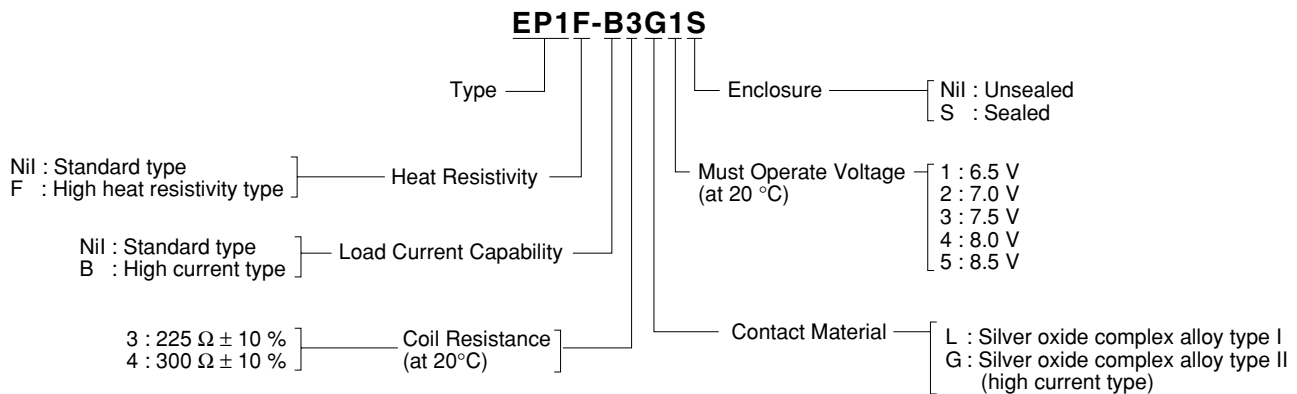


PART NUMBERS AND COIL RATINGS

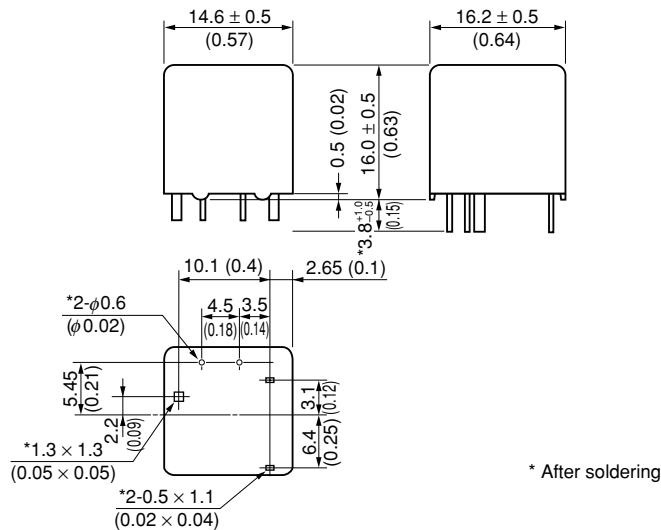
At 20°C (68°F)

Part Number		Nominal Voltage (Vdc)	Coil Resistance ($\Omega \pm 10\%$)	Nominal Current (mA)	Must Operate Voltage (Vdc)	Must Release Voltage (Vdc)	Nominal Operate Power (W)
Standard Type	High Current Type						
EP1-3L1	EP1-B3G1	12	225	53.3	6.5	0.9	0.64
EP1-3L2	EP1-B3G2	12	225	53.3	7.0	0.9	0.64
EP1-3L3	EP1-B3G3	12	225	53.3	7.5	0.9	0.64
EP1-4L3	EP1-B4G3	12	300	40.0	7.5	0.9	0.48
EP1-4L4	EP1-B4G4	12	300	40.0	8.0	0.9	0.48
EP1-4L5	EP1-B4G5	12	300	40.0	8.5	0.9	0.48

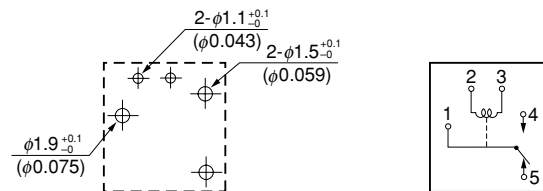
PART NUMBER SYSTEM



DIMENSIONS



PCB PAD LAYOUT and SCHEMATICS (bottom view) mm (inch)



SPECIFICATIONS

At 20°C (68°F)

Items		Specification
Contact Form		1 form C
Contact Material		Silver oxide complex alloy
Contact Resistance		5.2 mΩ typ. (Standard), 3.2 mΩ typ. (High current)
Contact Switching Voltage		16 Vdc max. 5 Vdc min.
Contact Switching Current		25 A max. (at 16 Vdc) 1 A min.
Contact Carrying Current	Standard	30 A max. (2 minutes max.) (at 12 Vdc, 85°C)
	High	35 A max. (2 minutes max.) (at 12 Vdc, 85°C)
Operate Time (Excluding bounce)		10 ms max. (at 12 Vdc) initial
Release Time (Excluding bounce)		10 ms max. (at 12 Vdc) initial
Nominal Operate Power		0.48 W/0.64 W (at 12 Vdc)
Insulation Resistance		100 MΩ min. (at 500 Vdc) initial
Breakdown Voltage		500 Vac min. (for 1 minute) initial
Shock Resistance		98 m/s ² min. (misoperating)
Vibration Resistance		10 to 300 Hz, 43 m/s ² min. (misoperating)
Coil Temperature Rise		50°C/W (Contact Carrying Current 0 A)
Ambient Temperature		-40°C to +85°C (-40°F to +185°F)
Life Expectancy	Mechanical	1 × 10 ⁶ operations
	Electrical	1 × 10 ⁵ operations (at 14 Vdc, Motor Load 20 A/3 A)
Weight		Approx. 8 g

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"Standard," "Special," and "Specific". The Specific quality grade applies only to devices developed based on a customer designated "quality assurance program" for a specific application. The recommended applications of a device depend on its quality grade, as indicated below. Customers must check the quality grade of each device before using it in a particular application.

Standard: Computers, office equipment, communications equipment, test and measurement equipment, audio and visual equipment, home electronic appliances, machine tools, personal electronic equipment and industrial robots

Special: Transportation equipment (automobiles, trains, ships, etc.), traffic control systems, anti-disaster systems, anti-crime systems, safety equipment and medical equipment (not specifically designed for life support)

Specific: Aircrafts, aerospace equipment, submersible repeaters, nuclear reactor control systems, life support systems or medical equipment for life support, etc.

The quality grade of NEC/TOKIN devices is "Standard" unless otherwise specified in NEC/TOKIN's Data Sheets or Data Books. If customers intend to use NEC/TOKIN devices for applications other than those specified for Standard quality grade, they should contact an NEC/TOKIN sales representative in advance.

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