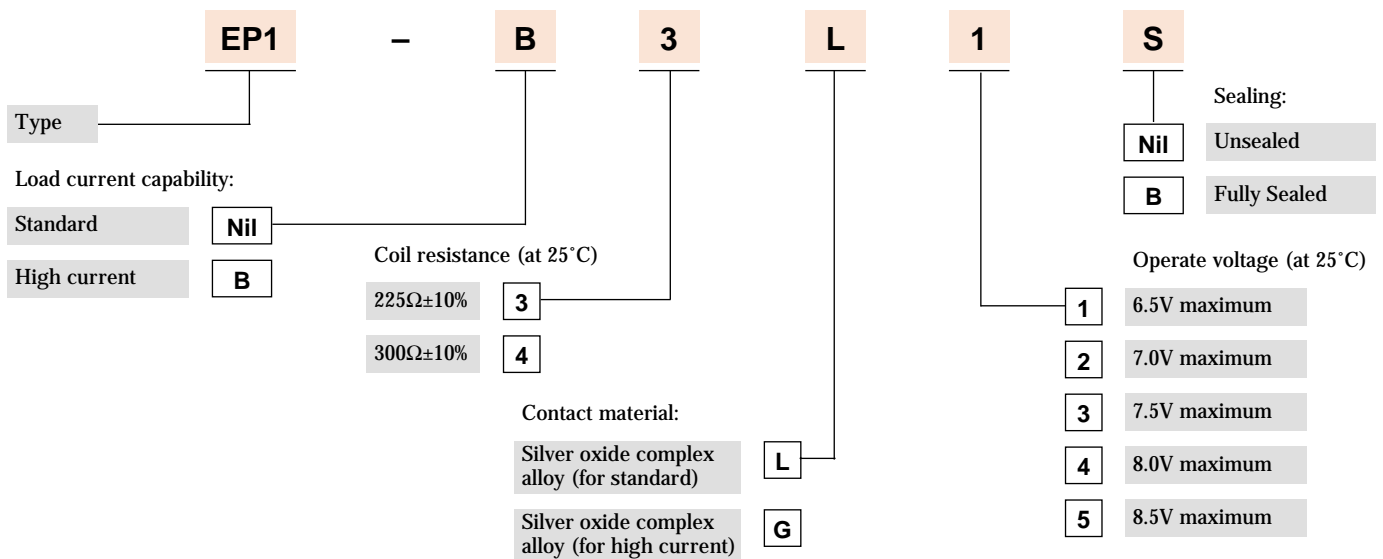- 33% less relay space than conventional relays (MR301 series)
- High performance and productivity by unique structure
- Flux tight and fully sealed available
- Delivered in stick-tube for automatic insertion machine

Options and ordering codes

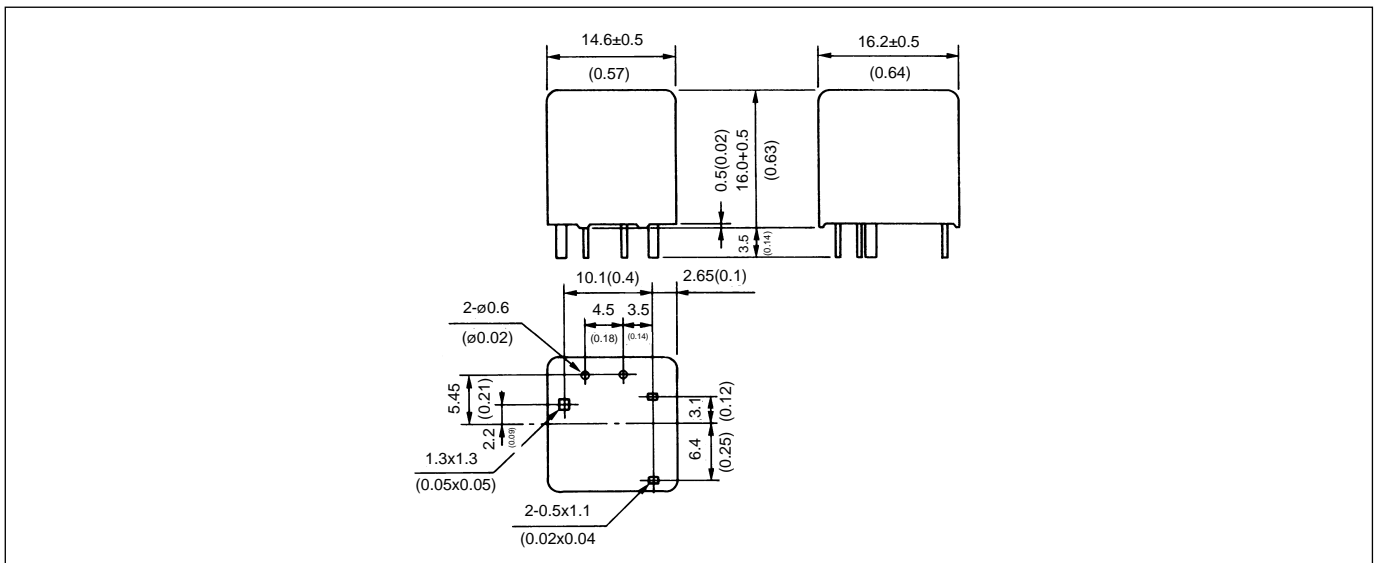| EP1	–	B	3	L	1	S

Type

Load current capability:

Standard	Nil
High current	B

Coil resistance (at 25˚C)

225Ω±10%	3
300Ω±10%	4

Contact material:

Silver oxide complex alloy (for standard)	L
Silver oxide complex alloy (for high current)	G

Sealing:

Nil	Unsealed
B	Fully Sealed

Operate voltage (at 25˚C)

1	6.5V maximum
2	7.0V maximum
3	7.5V maximum
4	8.0V maximum
5	8.5V maximum

Specifications

at 25˚C

Contact form		1C (SPDT)
Contact material		Silver oxide complex alloy
Contact resistance		50mΩ maximum (measured at 7A) initial
Contact switching voltage		30VDC maximum, 5VDC minimum
Contact switching current		25A maximum (at 16VDC), 1A minimum
Contact carrying current	Standard	25A maximum (2 minutes maximum) (at 12VDC, 85˚C)
	High	30A maximum (2 minutes maximum) (at 12VDC, 85˚C)
Operate time (excluding bounce)		Approximately 5ms maximum (at 12VDC) initial
Release time (excluding bounce)		Approximately 2ms maximum (at 12VDC) initial, without diode
Nominal operate power		0.48W/0.64W (at 12VDC)
Insulation resistance		100MΩ minimum (at 500VDC) initial
Breakdown voltage		500VDC minimum (for 1 minute) initial
Shock resistance		98 m/s^2 (approximately 10G) minimum (misoperating)
Vibration resistance		10 to 300Hz, 43 m/s^2 (approximately 4.4G) minimum (misoperating)
Coil temperature rise		50˚C/W (contact carrying current: 0A)
Ambient temperature		-40 to +85˚C
Life expectancy	Mechanical	1 x 10^6 operations
	Electrical	1 x 10^5 operations (at 14VDC, motor load 20A/3A)
Weight		Approximately 8g

IMO

Coil specification EP1

Part numbers		Nominal Voltage (VDC)	Coil resistance (Ω ±10%)	Nominal Current (mA)	Must Operate voltage (VDC maximum)	Must Release voltage (VDC minimum)	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

Outline dimensions mm

PCB pad layout and schematics (mm) bottom view