IMO Automotive Power Relay EN2

- Twin relay for motor and solenoid reversible control
- 30% less relay space than conventional two relays
- Contact switching current of 35A maximum
- High performance and productivity by unique symmetrical structure
- Flux tight and fully sealed available
- Delivered in stick-tube for automatic insertion machine

Options and ordering codes

EN2 – B 1 N 1 S T

Type: EN2

Carrying current capacity:

Standard type	Nil
High current type	B

Coil resistance (at 25˚C)

125Ω±10%	1
180Ω±10%	2
225Ω±10%	3

Contact material:

Silver oxide complex alloy type I	N
Silver oxide complex alloy type II	H

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

Sealing:

Nil	Unsealed
S	Fully sealed

Wiring

Nil	H bridge type
T	Separate type

Specifications

at 25˚C (77˚F)

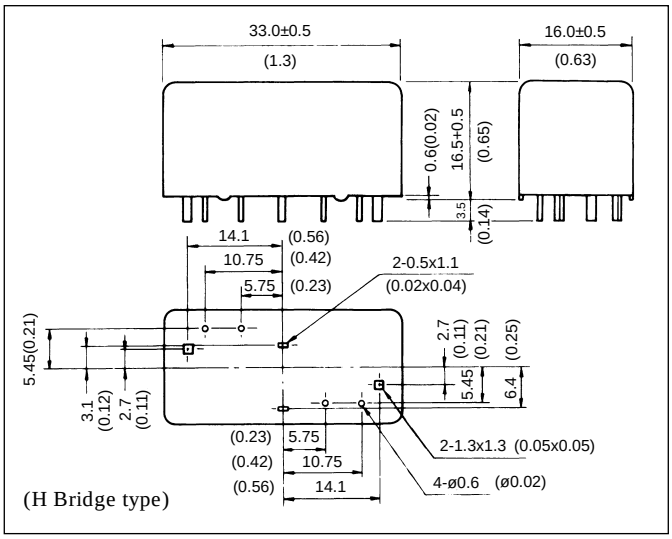
Contact form		2C (H bridge type and separate type)
Contact material		Silver oxide complex alloy (special types available)
Contact resistance		50mΩ maximum (measured at 7A) initial
Contact switching voltage		30VDC maximum, 5VDC minimum
Contact switching current		35A maximum (at 16VDC), 1A minimum
Contact carrying current	**Standard**	25A maximum (2 minutes maximum) (at 12VDC, 85˚C)
	High	35A maximum (2 minutes maximum) (at 12VDC, 85˚C)
Operate time		Approximately 5ms maximum (at 12VDC, excluding bounce) initial
Release time		Approximately 2ms maximum (at 12VDC, excluding bounce) initial, without diode
Nominal operate power		0.64W/0.8W/1.15W (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 25A/7A)
Weight		Approximately 18g

Coil specification EN2

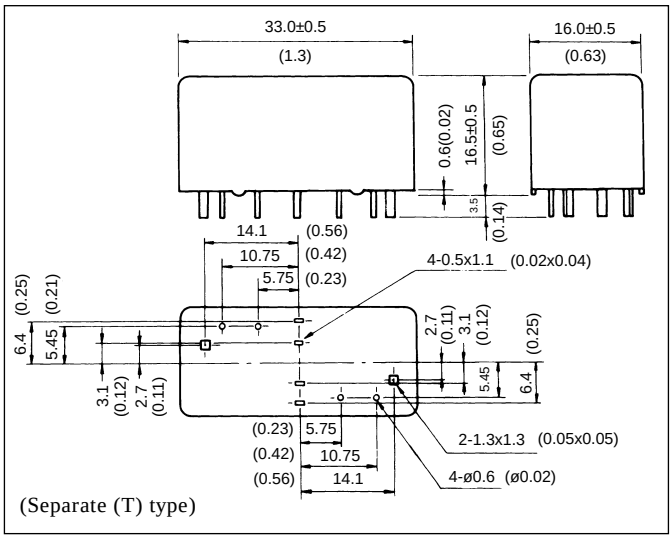
at 25˚C (77˚F)

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)
H Bridge Type	Separate Type						
EN2-1N1S	EN2-1N1ST	12	125	96.0	6.5	0.6	1.15
EN2-1N2S	EN2-1N2ST	12	125	96.0	7.0	0.6	1.15
EN2-2N3S	EN2-2N3ST	12	180	67.0	7.5	0.6	0.8
EN2-2N4S	EN2-2N4ST	12	180	67.0	8.0	0.6	0.8
EN2-3N4S	EN2-3N4ST	12	225	53.0	8.0	0.9	0.64
EN2-3N5S	EN2-3N5ST	12	225	53.0	8.5	0.9	0.64

Outline dimensions mm

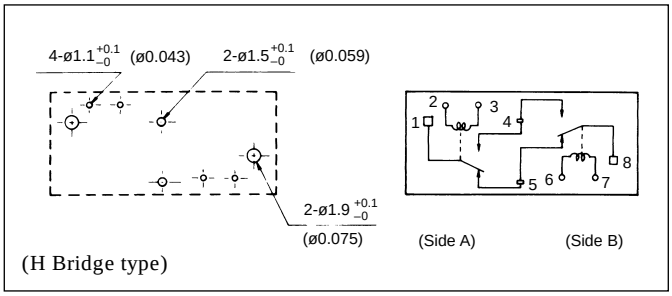


(H Bridge type)

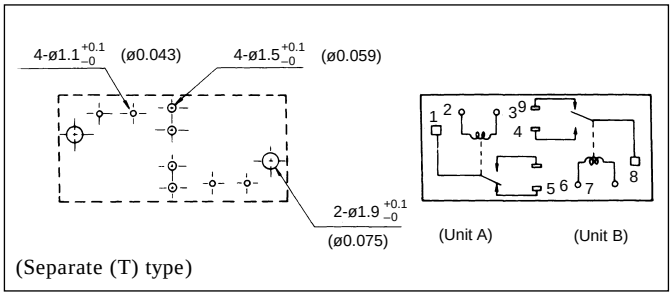


(Separate (T) type)

PCB pad layout and schematics (mm) bottom view



(H Bridge type)



(Separate (T) type)