

20.0×9.8×11.0

M1B

c UL us E169380 R50044268

Features

- DIL Pitch Terminals .High Sensitivity。
- Conforms to FCC Part 68 1.5kV Surge and Dielectric 1000VAC。
- Fully sealed (immersion cleaning).
- High Reliability bifurcated Contact.
- Application for Telecommunication Equipment,Office Equipment,Security Alarm Systems,Measuring instruments, Medical Monitoring Equipment,Audio Visual Equipment,Flight Simulator,Sensor Control。

Ordering Information

M1B	12	H	A	W
1	2	3	4	5

1 Part number：M1B
2 Coil rated voltage：DC:3:3V；5:5V；6:6V；9:9V；12:12V；24:24V；48:48V
3 Enclosure：H: Sealed Type
4 Nominal coil power：Nil:0.55W；A:0.4W
5 Contact material：Nil: AgPd；W: AgNi

Contact Data

Contact Arrangement	2C（DPDT(B-M)）（Bifurcated Crossbar）		
Contact Material	AgPd(Gold clad) AgNi(Gold clad）		
Contact Rating (resistive)	0.01mA/10mV to 1A/24VDC; 0.5A/120VAC		
Max. Switching Power	60W 125VA	Min. Switching load：0.01mA/10mV（Reference Value）	
Max. Switching Voltage	220VDC 250VAC	Max. Switching Current:2A	
Contact Resistance or Voltage drop	≤50mΩ	Item 4.12 of IEC 61810-7	
Operational Life	Electrical	1A/24VDC：5×10^5 (Ag Ni ：1×10^5) 0.5A/120VAC：2×10^5	Item 4.30 of IEC 61810-7
	Mechanical	10^8	Item 4.31 of IEC 61810-7

CAUTION:

Relays previously tested or used above 10mA resistive at 6V maximum （DC or peak AC） open circuit are not recommended for subsequent use in low level applications.

Coil Parameter

Dash numbers	Coil voltage VDC		Coil resistance Ω±10%	Pick up voltage VDC(max) (70% of rated voltage)	Release voltage VDC(min) (10% of rated voltage)	Coil power W	Operate Time ms	Release Time ms
	Rated	Max.						
M1B-003	3	4.2	16	2.1	0.3	0.56	Approx. 5	Approx. 3
M1B-005	5	7.0	45	3.5	0.5	0.56		
M1B-006	6	8.4	66	4.2	0.6	0.55		
M1B-009	9	12.3	140	6.3	0.9	0.58		
M1B-012	12	17.4	280	8.4	1.2	0.52		
M1B-024	24	34.0	1070	16.8	2.4	0.54		
M1B-048	48	64.9	3900	33.6	4.8	0.59		
M1B-003A	3	4.9	22.5	2.1	0.3	0.4	Approx. 5	Approx. 3
M1B-005A	5	8.1	62.5	3.5	0.5	0.4		
M1B-006A	6	9.7	90	4.2	0.6	0.4		
M1B-009A	9	14.5	203	6.3	0.9	0.4		
M1B-012A	12	19.4	360	8.4	1.2	0.4		
M1B-024A	24	38.9	1440	16.8	2.4	0.4		
M1B-048A	48	77.8	5760	33.6	4.8	0.4		

CAUTION: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

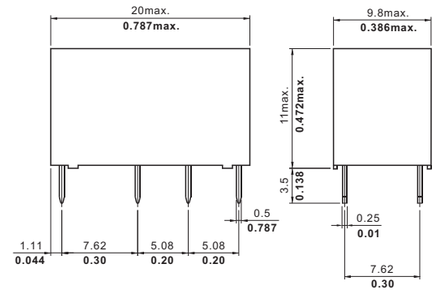
Characteristics

Electrostatic capacitance		
Between open Contacts	Approx.0.7pF	Item 4.41 of IEC 61810-7
Between coil & Contacts	Approx.1.0pF	Item 4.41 of IEC 61810-7
Between Contact Poles	Approx.0.9pF	Item 4.41 of IEC 61810-7
Insulation Resistance	1000MΩ min (at 500VDC)	Item 7 of IEC 61810-5
Dielectric Strength		
Between open Contacts Between coil & Contacts Between Contact Poles	1000VAC 1min 1000VAC 1min 1000VAC 1min	Item 6 of IEC 61810-5 Item 6 of IEC 61810-5 Item 6 of IEC 61810-5
Surge Withstand Voltage		
Between open Contacts Between coil & Contacts Between Contact Poles	1500V 1500V 1500V	FCC68 FCC68 FCC68
Shock resistance	Functional:100m/s² 11ms; Survival:1000 m/s² 6ms	IEC68-2-27 Test Ea
Vibration resistance	10~55Hz Double amplitude Functional：1.5mm Survival:5mm	IEC68-2-6 Test Fc
Terminals strength	5N	IEC68-2-21 Test Ua1
Solderability	235℃±2℃ 3±0.5s	IEC68-2-20 Test Ta method1
Temperature Range	-40~65℃(-40~149°F) (-40~70℃ for 0.4W Coil)	
Mass	4.5g	

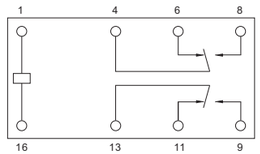
Safety approvals

Safety approval	UL&CUR	TÜV
Load	1A/24VDC 0.5A/120VAC	1A/24VDC、0.5A/120VAC

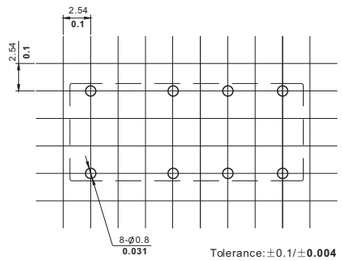
Dimensions mm/inch



Dimensions



Wiring diagram
(Bottom view)



Mounting (Bottom view)

NOTES 1).Dimensions are in millimeters.
2).Inch equivalents are given for general information only.