

## FEATURES

- Micro miniature
- Change-over contact version
- ROHS & ELV compliant

## CONTACT DATA

Contact form	2C (Double)
Min. contact load	1A 6VDC
Voltage drop(initial) <sup>1)</sup>	Ttp.:50mV(at 10A) Max.:250mV(at 10A)
Max. continuous current <sup>2)</sup>	15A (at 85°C,1h)
Max. switching current	25A
Max. switching power	280W
Max. switching voltage <sup>3)</sup>	16VDC

- 1) Equivalent to the max. initial contact resistance is 100mΩ (at 1A 6VDC)
- 2) For NO contacts, measured when applying 100% rated voltage on coil of both sides.
- 3) See “Load limit curve” for details
- 4) 1 min, leakage current less 1mA.
- 5) The value is measured when voltage drops suddenly from nominal voltage to 0 VDC and coil is not paralleled with suppression circuit.
- 6) When energized, opening time of NO contacts shall not exceed 1ms, when non-energized, opening time of NC contacts shall not exceed 1ms, meantime, NO contacts shall not be closed.
- 7) Since it is an environmental friendly product, please select lead-free solder when welding. The recommended soldering temperature and time is (250±3) °C, (5±0.3) °C

## CHARACTERISTICS

Insulation resistance	Min. 100MΩ at 500VDC
Dielectric strength <sup>4)</sup>	500VAC,between coil and contacts 500VAC, between open contacts
Operate time	Typ.: 3 ms (at nomi.vol.) Max.:10ms ( at nomi.vol.)
Release time <sup>5)</sup>	Typ.: 1.3 ms (at nomi.vol.) Max.:10ms ( at nomi.vol.)
Vibration resistance <sup>6)</sup>	10-100 Hz , DA 1.5mm 55Hz to 200Hz 98m/s <sup>2</sup>
Shock resistance <sup>6)</sup>	294m/s <sup>2</sup>
Ambient temperature	-40°C to +85°C
Termination	PCB <sup>7)</sup>
Life expectancy - Mechanical	1 x 10 <sup>7</sup> ops (300 ops/min)

## CONTACT DATA<sup>4)</sup>

Load voltage	Load type		Load current A		On/Off ratio		Electrical endurance ops	Contact material	Load wiring diagram <sup>3)</sup>	Ambient temp.
			2C		On	Off				
			NO	NC	s	s				
13.5 VDC	Simulate motor operation	Make <sup>1)</sup>	25	---	0.02	3.6	1 x 10 <sup>5</sup>	AgSnO <sub>2</sub>	See diagram1	85°C
		Transient1 <sup>1)</sup>	15	---	0.03					
		Transient2 <sup>1)</sup>	10	---	0.03					
		Break	6	---	0.32					
	Resistive	Make	20	---	1	3	2 x 10 <sup>5</sup>	AgSnO <sub>2</sub>	See diagram2	80°C
		Break	20	---						
	Lamp <sup>2)</sup>	Make	4x21W	---	1	5	2 x 10 <sup>5</sup>	AgSnO <sub>2</sub>	See diagram3	80°C
		Break								

- 1) Current of turn on transient 1, transient 2 is subsection simulation to that of motor start-up peak value.
- 2) The load in the table excludes flasher. When applied in flasher, a special silver alloy (AgSnO<sub>2</sub>) contact material should be used and the customer special code should be (10) as a suffix. Please heed the anode and cathode's request when wired. Common terminal should connect with anode.
- 3) The load wiring diagrams are listed below:

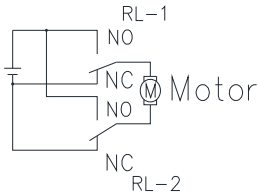


diagram 1

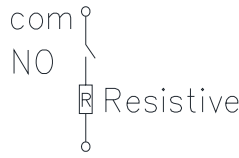


diagram 2

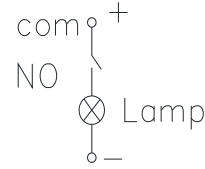


diagram 3

- 4) When the load voltage is at 24VDC or higher, or the applications conditions are different from the table above, please submit the detailed application conditions to MASSUSE to get more support.

## COIL SPECIFICATIONS

Nominal voltage (VDC)	Pick-up voltage (VDC)	Drop-out voltage (VDC)	Coil resistance ( $\Omega \pm 10\%$ )	Nominal operating current (mA)	Max. allowable voltage (VDC)		Nominal Power (W)
					23°C	85°C	
12	7.2	1	255	47	20	16	0.56
12B	5.8	0.8	178	67.5	17	13.5	0.81

## ORDERING INFORMATION

**MEA3**

- **012** -

**2Z**

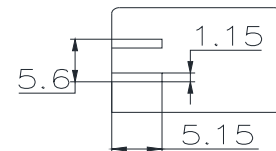
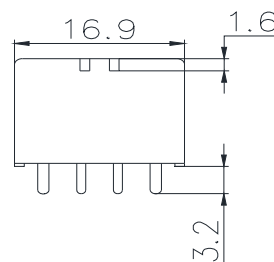
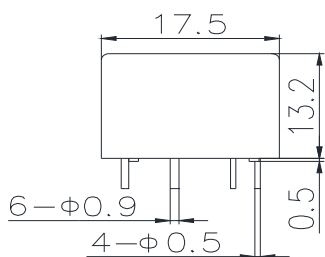
**S**

**T**

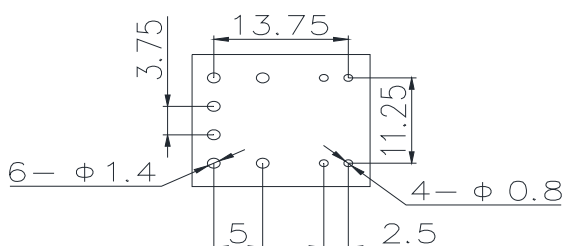
Model No.	Coil Voltage	Contact Form	Protection	Contact Material
MEA3	012: Pick Up Voltage is 7.2VDC 012B: Pick Up Voltage is 5.8VDC	2Z: 2 x 1 Form C (Double relay)	S: Sealed	T: AgSnO <sub>2</sub>

## DIMENSION (unit: mm)

### Outline Dimensions



### PCB Layout



### Wiring Diagram

