

- 1 pole 10/16A, 1 form A (NO) or 1 form C (CO) contact
- Meet 5000V dielectric voltage between coil and contacts
- Meet 10000V surge voltage between coil and contacts
- Can provide anti-explosion type  
(meet IEC-60079-15/GB3836.1-2010/GB3836.8-2014)



### Typical applications

Home appliances (refrigerators, washing machines, microwave ovens), office machines, and room air conditioners



### Approvals

VDE 40005414, UL E58304, CSA LR48471,  
SEMKO 903200, CQC 08001024660, TUV R50139138  
Technical data of approved types on request

### Contact Data

|                                                                  |                                                    |                               |
|------------------------------------------------------------------|----------------------------------------------------|-------------------------------|
| Contact arrangement                                              | 1 Form A (NO), 1 Form C (CO)                       |                               |
| Rated voltage                                                    | 250VAC / 30VDC                                     |                               |
| Max. switching voltage                                           | 250VAC / 30VDC                                     |                               |
| Rated current                                                    | 16A                                                |                               |
| Contact material                                                 | Ag alloy                                           |                               |
| Min. recommended contact load                                    | 100mA 5VDC                                         |                               |
| Initial contact resistance                                       | 100mΩ @ 1A, 6VDC                                   |                               |
| Frequency of operation, with/without load                        | 360 / 18000h <sup>-1</sup>                         |                               |
| Operate/Release time Max.                                        |                                                    |                               |
| standard coil:                                                   | 15ms/8ms                                           |                               |
| sensitive coil:                                                  | 20ms/8ms                                           |                               |
| Electrical endurance                                             |                                                    |                               |
| Type                                                             | Load                                               | Cycles                        |
| IEC 61810                                                        | 16 A, 250 VAC, resistive                           | 100×10 <sup>3</sup> at 85°C   |
|                                                                  | 16 A, 30VDC                                        | 30×10 <sup>3</sup> room temp  |
| UL508                                                            | 16 A, 250 VAC, resistive                           | 30×10 <sup>3</sup> at 85°C    |
|                                                                  | 16 A, 250 VAC general use<br>(anti-explosive type) | 100×10 <sup>3</sup> room temp |
| Keep the vent hole open during test (except anti-explosive type) |                                                    |                               |
| Mechanical endurance                                             | 10X10 <sup>6</sup> ops                             |                               |

### Coil Data

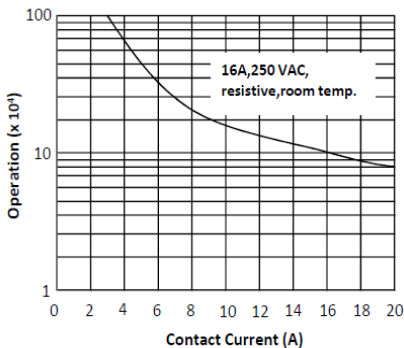
| Coil voltage range                  | 5 to 48VDC               |                     |                     |                            |                     |
|-------------------------------------|--------------------------|---------------------|---------------------|----------------------------|---------------------|
| Coil insulation system according UL | class 105 (A)            |                     |                     |                            |                     |
| <b>Coil versions, DC coil</b>       |                          |                     |                     |                            |                     |
| Coil code                           | Rated coil voltage (VDC) | Operate voltage VDC | Release voltage VDC | Coil resistance Ohm +/-10% | Rated coil power mW |
| <b>Standard coil, 720mW</b>         |                          |                     |                     |                            |                     |
| 05                                  | 5                        | 3.5                 | 0.25                | 36                         | 720                 |
| 06                                  | 6                        | 4.2                 | 0.3                 | 48.5                       | 720                 |
| 09                                  | 9                        | 6.3                 | 0.45                | 115                        | 720                 |
| 12                                  | 12                       | 8.4                 | 0.6                 | 200                        | 720                 |
| 24                                  | 24                       | 16.8                | 1.2                 | 820                        | 720                 |
| 48                                  | 48                       | 33.6                | 2.4                 | 3300                       | 720                 |
| <b>Sensitive coil, 540mW</b>        |                          |                     |                     |                            |                     |
| 05                                  | 5                        | 3.75                | 0.25                | 49                         | 540                 |
| 06                                  | 6                        | 4.5                 | 0.3                 | 68.0                       | 540                 |
| 09                                  | 9                        | 6.75                | 0.45                | 155                        | 540                 |
| 12                                  | 12                       | 9.0                 | 0.6                 | 270                        | 540                 |
| 24                                  | 24                       | 18.0                | 1.2                 | 1100                       | 540                 |
| 48                                  | 48                       | 36.0                | 2.4                 | 4400                       | 540                 |

All figures are given for coil without pre-energization, at ambient temperature +23°C

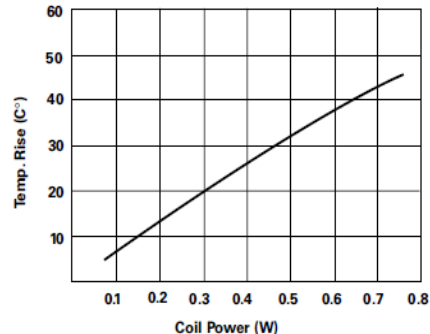
### Insulation Data

|                                 |            |
|---------------------------------|------------|
| Initial dielectric strength     |            |
| between open contacts           | 1000Vms    |
| between contact and coil        | 5000Vms    |
| Initial surge withstand voltage |            |
| between contact and coil        | 10000V     |
| Initial insulation resistance   | 1000MΩ     |
| Clearance/creepage              |            |
| between contact and coil        | ≥5.5mm/8mm |

### Electrical endurance

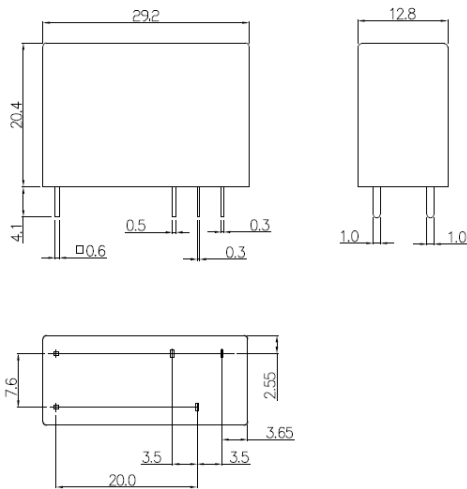


### Coil temperature rise



| Other Data                                                                                                                                                                                                                              |                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the product Compliance Support Center at <a href="http://WWW.te.com/customer-support/rohssupportcenter">WWW.te.com/customer-support/rohssupportcenter</a> |                                              |
| Ambient temperature                                                                                                                                                                                                                     | -40°C to +85°C                               |
| Category of environmental protection                                                                                                                                                                                                    | IEC61810                                     |
|                                                                                                                                                                                                                                         | RTII - flux proof<br>RTIII - wash tight      |
| Shock resistance(functional)                                                                                                                                                                                                            | 98m/s <sup>2</sup>                           |
| Shock resistance(destructive)                                                                                                                                                                                                           | 980m/s <sup>2</sup>                          |
| Resistance to soldering heat THT                                                                                                                                                                                                        | IEC 60068-2-20                               |
|                                                                                                                                                                                                                                         | RTII: 270°C/10s<br>RTIII: 260°C/5s           |
| Terminal type                                                                                                                                                                                                                           | PCB-THT                                      |
| Weight                                                                                                                                                                                                                                  | about 13g                                    |
| Packaging unit                                                                                                                                                                                                                          | Tray/50, Carton/1000<br>Tube/20, Carton/1000 |

### Dimensions



### Terminal Assignment

Bottom view on solder pins



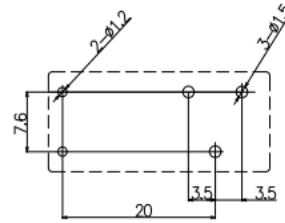
1 Form C



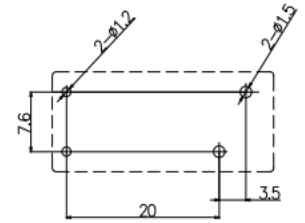
1 Form A

### PCB layout

Bottom view on solder pins



1 Form C



1 Form A

### GENERAL TOLERANCE

- 0~0.99mm: ±0.1
- 1mm~2.99mm: ±0.2
- 3mm Min: ±0.3

REMARK: 1.The tolerance for PCB layout: ±0.1mm.  
2.The terminal size is before soldering.

| Product code structure     | Typical product code                                             | OMIH                 | -SS | -1                | 12 | L | M | 2 | ,XXXXX |
|----------------------------|------------------------------------------------------------------|----------------------|-----|-------------------|----|---|---|---|--------|
| <b>Type</b>                | OMIH                                                             | Power PCB Relay OMIH |     |                   |    |   |   |   |        |
| <b>Sealing</b>             | SS                                                               | Flux proof           | SH  | Wash tight        |    |   |   |   |        |
| <b>Poles</b>               | 1                                                                | 1 pole               |     |                   |    |   |   |   |        |
| <b>Coil</b>                | Coil code: please refer to coil version table (e.g., 12 = 12VDC) |                      |     |                   |    |   |   |   |        |
| <b>Coil power</b>          | D                                                                | Standard 720mW       | L   | Sensitive 540mW   |    |   |   |   |        |
| <b>Contact arrangement</b> | Blank                                                            | 1 Form C             | M   | 1 Form A, SPST-NO |    |   |   |   |        |
| <b>Contact material</b>    |                                                                  |                      |     |                   |    |   |   |   |        |

|              |                                                |                                                                           |
|--------------|------------------------------------------------|---------------------------------------------------------------------------|
| <b>Blank</b> | Standard (1 Form A : AgSnInO; 1 Form C: AgCdO) |                                                                           |
| <b>1</b>     | AgSnInO (Only 1 form C )                       | <b>2</b> Anti-explosion type (Only 1 form A,also used on Flux proof type) |

**Suffix**

,XXXXX 0 - 9, a - z, A - Z, or blank (which does not represent electrical changes, only for specific customer requirements)

| Product Code         | Contact arrangement | Contact material | Coil  | Enclosure  | Part number |
|----------------------|---------------------|------------------|-------|------------|-------------|
| OMIH-SH-112LM2,0SE2W | Form A              | Anti-Ex          | 12VDC | Wash tight | 2071446-3   |
| OMIH-SS-112LM2,0000W | Form A              | Anti-Ex          | 12VDC | Flux proof | 2071514-1   |
| OMIH-SS-112LM, 0000M | Form A              | AgSnOInO         | 12VDC | Flux proof | 1-1721685-0 |
| OMIH-SH-112LM,03020  | Form A              | AgSnOInO         | 12VDC | Wash tight | 1-1721685-1 |
| OMIH-SS-112LM,01020  | Form A              | AgSnOInO         | 12VDC | Flux proof | 1-1721685-2 |
| OMIH-SH-112L,000     | Form C              | AgCdO            | 12VDC | Wash tight | 5-1419121-7 |
| OMIH-SS-112L,000     | Form C              | AgCdO            | 12VDC | Flux proof | 8-1419121-0 |
| OMIH-SH-112L1,300    | Form C              | AgSnOInO         | 12VDC | Wash tight | 1-1721535-5 |
| OMIH-SH-105L,394     | Form C              | AgCdO            | 5VDC  | Wash tight | 1-1461373-1 |
| OMIH-SH-124LM,000    | Form A              | AgCdO            | 24VDC | Wash tight | 6-1419121-9 |
| OMIH-SS-112LM,000    | Form A              | AgCdO            | 12VDC | Flux proof | 8-1419121-1 |
| OMIH-SS-124LM,000    | Form A              | AgCdO            | 24VDC | Flux proof | 8-1419121-8 |
| OMIH-SS-112LM,000M   | Form A              | AgCdO            | 12VDC | Flux proof | 1-1721685-0 |
| OMIH-SH-112LM,00E0W  | Form A              | AgCdO/Anti-Ex    | 12VDC | Wash tight | 2071372-1   |
| OMIH-SH-112L,000     | Form C              | AgCdO            | 12VDC | Wash tight | 5-1419121-7 |
| OMIH-SS-112L,000     | Form C              | AgCdO            | 12VDC | Flux proof | 8-1419121-0 |
| OMIH-SS-124L,000     | Form C              | AgCdO            | 24VDC | Flux proof | 8-1419121-7 |