

**Miniature PCB Relay OJ / OJE**

- 1 pole 8 A, 1NO contact
- Sensitive coil, 200 mW
- 3 kV or 4 kV dielectric strength between coil and contacts
- Miniature size
- RoHS compliant (Directive 2002 / 95 / EC) as per product date code 0424
- WG Version in accordance to IEC60335-1



F0277-C

**Approvals**

VDE REG.-Nr. 6835, cULus E82292  
 Technical data of approved types on request

| Contact data                                     | LMH                        | LMH2               |
|--|----------------------------|--------------------|
| Contact configuration                            | 1 NO                       |                    |
| Contact set                                      | single contact             |                    |
| Type of interruption                             | micro disconnection        |                    |
| Rated voltage / max. switching voltage AC        | 250 VAC                    |                    |
| Rated current                                    | 8 A                        |                    |
| Limiting continuous current                      | 8 A                        |                    |
| Maximum breaking capacity AC                     | 2000 VA                    |                    |
| Contact material                                 | AgCdO                      | AgSnO <sub>2</sub> |
| Rated frequency of operation with / without load | 10 / 600 min <sup>-1</sup> |                    |
| Operate- / release time                          | max. 7 / 4 ms              |                    |
| Bounce time NO / NC contact                      | max. 5 / 3 ms              |                    |

**Contact ratings**

| Type                | Contact | Load                    | Ambient temp. [°C] | Cycles              |
|---------------------|---------|-------------------------|--------------------|---------------------|
| <b>IEC 61810</b>    |         |                         |                    |                     |
| OJ(E)-SS(SH)-1..LM  | NO      | 3 A, 250 VAC, cosφ=1    | 55°C               | 100x10 <sup>3</sup> |
| OJ(E)-SS(SH)-1..LMH | NO      | 6.3 A, 250 VAC, cosφ=1  | 85°C               | 20x10 <sup>3</sup>  |
| OJ-SS-1..LMH2       | NO      | 8 A, 250 VAC, cosφ=1    | 70°C               | 30x10 <sup>3</sup>  |
| OJ-SS-1..LMH2       | NO      | 5 A, 250 VAC, cosφ=1    | 85°C               | 100x10 <sup>3</sup> |
| OJ-SS-1..LMH2       | NO      | 6.3A, 250 VAC, cosφ=1   | 85°C               | 50x10 <sup>3</sup>  |
| <b>UL 508</b>       |         |                         |                    |                     |
| OJ(E)-SS(SH)-1..LM  | NO      | 3 A, 250 VAC, resistive | 23°C               | 100x10 <sup>3</sup> |
| OJ(E)-SS(SH)-1..LM  | NO      | 3 A, 30 VDC, resistive  | 23°C               | 100x10 <sup>3</sup> |
| OJ-SS-1..LMH2       | NO      | 8 A, 250 VAC, resistive | 85°C               | 10x10 <sup>3</sup>  |

**Coil data**

|   |              |
|---|--------------|
| Rated coil voltage range DC coil                    | 3 ... 48 VDC |
| Operative range to IEC 61810                        | 2            |
| Coil insulation system according UL1446, WG-version | class F      |

**Coil versions, DC-coil**

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ohm | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|---------------------|---------------------|
| 03        | 3                 | 2.25                | 0.15                | 45±10%              | 200                 |
| 05        | 5                 | 3.75                | 0.25                | 125±10%             | 200                 |
| 06        | 6                 | 4.5                 | 0.3                 | 180±10%             | 200                 |
| 09        | 9                 | 6.75                | 0.45                | 400±10%             | 203                 |
| 12        | 12                | 9                   | 0.6                 | 720±10%             | 200                 |
| 24        | 24                | 18                  | 1.2                 | 2800±10%            | 206                 |

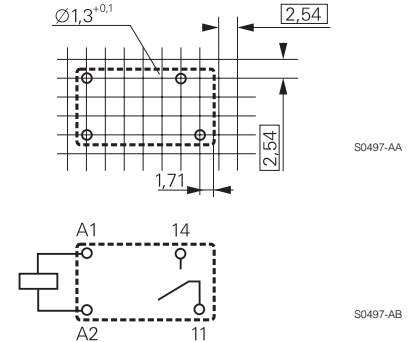
All figures are given for coil without preenergization, at ambient temperature +23°C  
 Other coil voltages on request

**Miniature PCB Relay OJ / OJE (Continued)**

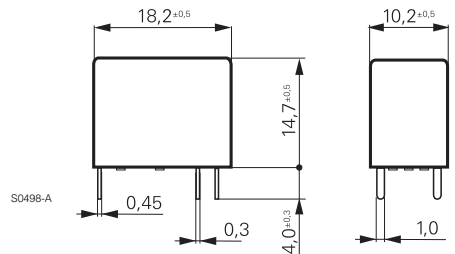
| Insulation                                |     |                       |
|---|-----|-----------------------|
| Dielectric strength coil-contact circuit  | OJ  | 4000 V <sub>rms</sub> |
|   | OJE | 3000 V <sub>rms</sub> |
| open contact circuit                      |     | 1000 V <sub>rms</sub> |
| Clearance / creepage coil-contact circuit |     | ≥ 6/8 mm              |
| Material group of insulation parts        |     | IIIa                  |
| Tracking index of relay base              |     | PTI 250               |
| Insulation to IEC 61810-1                 |     |                       |
| Type of insulation coil-contact circuit   |     | basic                 |
| open contact circuit                      |     | micro disconnection   |
| Rated insulation voltage                  |     | 250 V                 |
| Pollution degree                          |     | 3                     |
| Rated voltage system                      |     | 230 / 400 V           |
| Overvoltage category                      |     | III                   |

| Other data                                      |   |
|---|---|
| Mechanical endurance                            | 5x10 <sup>6</sup> cycles                |
| Material  |   |
| RoHS - Directive 2002/95/EC                     | compliant as per product date code 0424 |
| Resistance to heat and fire, WG version         | according EN60335, par.30               |
| Environment                                     |   |
| Ambient temperature range                       | -30 ... +85°C                           |
| Category of protection                          | RTII - flux proof                       |
| Processing                                      |   |
| Resistance to soldering heat flux-proof version | 270° / 10 s                             |
| Relay weight                                    | 9 g                                     |
| Packaging unit                                  | 500 pcs                                 |

**PCB layout / terminal assignment**  
Bottom view on solder pins



**Dimensions**



|                               |   |              |              |           |           |          |          |          |          |
|-------------------------------|---|--------------|--------------|-----------|-----------|----------|----------|----------|----------|
| <b>Product key</b>            | Typical product key   | <b>OJ</b>    | <b>-SS</b>   | <b>-1</b> | <b>06</b> | <b>L</b> | <b>M</b> | <b>H</b> | <b>2</b> |
| <b>Type</b>                   | OJ Miniature PCB Relay OJ/OJE                                   |              |              |           |           |          |          |          |          |
| <b>Dielectric strength</b>    | E 3 kV  | <b>Blank</b> | 4 kV         |           |           |          |          |          |          |
| <b>Category of protection</b> | SS flux proof   | <b>SH</b>    | washtight    |           |           |          |          |          |          |
| <b>Number of poles</b>        | 1 1 pole  |              |              |           |           |          |          |          |          |
| <b>Coil</b>                   | Coil code: please refer to coil versions table                  |              |              |           |           |          |          |          |          |
| <b>Coil version</b>           | L sensitive 200 mW  |              |              |           |           |          |          |          |          |
| <b>Contact configuration</b>  | M 1 NO contact (1 form A)                                       |              |              |           |           |          |          |          |          |
| <b>Contact rating</b>         | H 8 A   |              |              |           |           |          |          |          |          |
| <b>Contact material</b>       | 2 AgSnO <sub>2</sub>  |              | <b>Blank</b> | AgCdO     |           |          |          |          |          |
| <b>Version</b>                | Blank Standard version  |              |              |           |           |          |          |          |          |
|                               | WG Product in accordance with IEC 60335-1 (domestic appliances) |              |              |           |           |          |          |          |          |

| Product key       | Version             | Contacts     | Contact material   | Coil   | Part number |
|-------------------|---------------------|--------------|--------------------|--------|-------------|
| OJ-SS-103LMH2     | flux proof          | 1 NO contact | AgSnO <sub>2</sub> | 3 VDC  | 1721181-1   |
| OJ-SS-105LMH2     |                     |              |                    | 5 VDC  | 1721181-2   |
| OJ-SS-106LMH2     |                     |              |                    | 6 VDC  | 1721181-3   |
| OJ-SS-109LMH2     |                     |              |                    | 9 VDC  | 1721181-4   |
| OJ-SS-112LMH2     |                     |              |                    | 12 VDC | 1721181-5   |
| OJ-SS-124LMH2     |                     |              |                    | 24 VDC | 1721181-6   |
| OJ-SS-105-LMH2-WG | flux proof          | 1 NO contact | AgSnO <sub>2</sub> | 5 VDC  | 1721874-2   |
| OJ-SS-106-LMH2-WG | materials according |              |                    | 6 VDC  | 1721874-3   |
| OJ-SS-109-LMH2-WG | IEC 60335-1         |              |                    | 9 VDC  | 1721874-4   |
| OJ-SS-112-LMH2-WG |                     |              |                    | 12 VDC | 1721874-5   |
| OJ-SS-124-LMH2-WG |                     |              |                    | 24 VDC | 1721874-6   |