

Power PCB relay OMI/OMIH

- 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

Typical applications
Home appliances, office machines



Approvals

VDE 40005414, UL E58304, CSA LR48471, SEMKO 613298(OMI), SEMKO 903200(OMIH), CQC 08001024660

Technical data of approved types on request

| Contact Data | OMI | OMIH |
|---|---|----------------------|
| Contact arrangement | 1 form A (NO), 1 form C (CO) | |
| Rated voltage | 250VAC | |
| Max. switching voltage | 30VDC, 250VAC | |
| Rated current | 10A | 16A |
| Switching power | 2500VA, 300W | 4000VA, 480W |
| Contact material | AgSnO | |
| Min. recommended contact load | 100mA, 5VDC | |
| Initial contact resistance | 100mOhm at 1A 6VDC | |
| Frequency of operation, with/without load | 1800/18000h ⁻¹ | |
| Operate/release time max. | | |
| standard coil: | 15/8ms | |
| sensitive coil: | 20/8ms | |
| Electrical endurance | | |
| OMI : NO 10A, 250VAC, resistive, | 100x10 ³ ops. | |
| OMIH :NO 16A, 250VAC, resistive, | 100x10 ³ ops. | |
| OMI : NC 5A, 250VAC, resistive, | 100x10 ³ ops. | |
| OMIH :NC 8A, 250VAC, resistive, | 100x10 ³ ops. | |
| Contact ratings | 10A, 250VAC (NO) 5A, 250VAC (NC) | 16A, 250VAC/30VDC |
| Mechanical endurance | 10x10 ⁶ operations | |

Coil Data

| | |
|-------------------------------------|---------------|
| Coil voltage range | 5 to 48VDC |
| Coil insulation system according UL | class 105 (A) |

Coil Data (continued)

Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|------------------------------|-------------------|---------------------|---------------------|-----------------------|---------------------|
| Standard coil, 720mW | | | | | |
| 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 |
| Sensitive coil, 540mW | | | | | |
| 05 | 5 | 3.75 | 0.25 | 48.5 | 540 |
| 06 | 6 | 4.5 | 0.3 | 68 | 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 | 1000V _{rms} |
| between contact and coil | 5000V _{rms} |
| Initial surge withstand voltage | |
| between contact and coil | 10000V |
| Initial insulation resistance | 1000MΩ |
| Clearance/creepage | |
| between contact and coil | ≥ 5.5/8mm |

Electrical endurance



Operate time



Coil temperature rise



Power PCB relay OMI/OMIH (Continued)

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

| | |
|--------------------------------------|--|
| Ambient temperature | |
| standard coil | -30 to 60°C |
| sensitive coil | -30 to 70°C |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof, RTIII - wash tight |
| Vibration resistance (functional) | 10 to 50Hz, 1.5mm double amplitude |
| Shock resistance (functional) | |
| IEC 60068-2-27 (half sine) | 98m/s ² , 11ms |
| Terminal type | PCB-THT |
| Weight | 13g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 260°C/5s |
| Packaging/unit | box/1000 pcs. |

Terminal assignment

Bottom view on solder pins



PCB layout

Bottom view on solder pins



Dimensions



Product code structure

Typical product code

OMI -SS -1 12 D 1 ,300

| | | |
|----------------------------|---|---|
| Type | OMI / OMIH Power PCB Relay OMI / OMIH | |
| Sealing | SS Flux proof | SH Wash tight |
| Pole | 1 1pole | |
| Coil | Coil code: please refer to coil versions table | |
| Coil power | D Standard 720mW | L Sensitive 540mW |
| Contact arrangement | 1 OMIH : 1 form C (CO) AgSnO M OMIH : 1 form A (NO), AgSnO | M1 OMI : 1form A (NO), AgSnO |
| Suffix | Blank Standard (OMI) | 300 Standard OMIH, 1 form C (CO), flux proof 394 Standard OMIH, 1form A (NO), wash tight |

Power PCB relay OMI/OMIH (Continued)

| Product code | Version | Contact | Cont.material | Coil power | Coil voltage | Sealing | Part number | |
|-------------------|---------|---------------|---------------|------------|--------------|-------------|-------------|-------------|
| OMI-SS-105DM1 | 10A | 1 form A (NO) | AgSnO | 720mW | 5VDC | Flux proof | 1721129-3 | |
| OMI-SS-112DM1 | | | | | 12VDC | | 1721129-9 | |
| OMI-SS-124DM1 | | | | | 24VDC | | 1-1721129-3 | |
| OMI-SS-105LM1 | | | | 540mW | 5VDC | 1721129-4 | | |
| OMI-SS-112LM1 | | | | | 12VDC | 1-1721129-0 | | |
| OMI-SS-124LM1 | | | | | 24VDC | 1-1721129-4 | | |
| OMI-SS-105D1 | | 1 form C (CO) | | | 720mW | 5VDC | | 1721130-3 |
| OMI-SS-112D1 | | | | | | 12VDC | 1721130-9 | |
| OMI-SS-124D1 | | | | | | 24VDC | 1-1721130-3 | |
| OMI-SS-105L1 | | | | | 540mW | 5VDC | 1721130-4 | |
| OMI-SS-112L1 | | | | | | 12VDC | 1-1721130-0 | |
| OMI-SS-124L1 | | | | | | 24VDC | 1-1721130-4 | |
| OMI-SH-105DM1 | | 1 form A (NO) | | 720mW | 5VDC | Wash tight | 1-1721129-9 | |
| OMI-SH-112DM1 | | | | | 12VDC | | 2-1721129-5 | |
| OMI-SH-124DM1 | | | | | 24VDC | | 2-1721129-9 | |
| OMI-SH-105LM1 | | | | 540mW | 5VDC | 2-1721129-0 | | |
| OMI-SH-112LM1 | | | | | 12VDC | 2-1721129-6 | | |
| OMI-SH-124LM1 | | | | | 24VDC | 3-1721129-0 | | |
| OMI-SH-105D1 | | 1 form C (CO) | | | 720mW | 5VDC | | 1-1721130-9 |
| OMI-SH-112D1 | | | | | | 12VDC | 2-1721130-5 | |
| OMI-SH-124D1 | | | | | | 24VDC | 2-1721130-9 | |
| OMI-SH-105L1 | | | | | 540mW | 5VDC | 2-1721130-0 | |
| OMI-SH-112L1 | | | | | | 12VDC | 2-1721130-6 | |
| OMI-SH-124L1 | | | | | | 24VDC | 3-1721130-0 | |
| OMIH-SS-105DM,300 | 16A | 1 form A (NO) | | 720mW | 5VDC | Flux proof | 1461022-5 | |
| OMIH-SS-112DM,300 | | | | | 12VDC | | 8-1440000-4 | |
| OMIH-SS-124DM,300 | | | | | 24VDC | | 8-1440000-9 | |
| OMIH-SS-105LM,300 | | | | 540mW | 5VDC | 2-1419153-1 | | |
| OMIH-SS-112LM,300 | | | | | 12VDC | 8-1440000-6 | | |
| OMIH-SS-124LM,300 | | | | | 24VDC | 2-1419153-2 | | |
| OMIH-SS-105D1,300 | | 1 form C (CO) | | | 720mW | 5VDC | | 1721535-1 |
| OMIH-SS-112D1,300 | | | | | | 12VDC | 1721535-4 | |
| OMIH-SS-124D1,300 | | | | | | 24VDC | 1721535-7 | |
| OMIH-SS-105L1,300 | | | | | 540mW | 5VDC | 1721535-2 | |
| OMIH-SS-112L1,300 | | | | | | 12VDC | 1721535-5 | |
| OMIH-SS-124L1,300 | | | | | | 24VDC | 1721535-8 | |
| OMIH-SH-105DM,394 | | 1 form A (NO) | | 720mW | 5VDC | Wash tight | 1-1461373-5 | |
| OMIH-SH-112DM,394 | | | | | 12VDC | | 1-1461373-8 | |
| OMIH-SH-124DM,394 | | | | | 24VDC | | 1-1461373-9 | |
| OMIH-SH-105LM,394 | | | | 540mW | 5VDC | 6-1440000-7 | | |
| OMIH-SH-112LM,394 | | | | | 12VDC | 7-1440000-1 | | |
| OMIH-SH-124LM,394 | | | | | 24VDC | 1461373-3 | | |
| OMIH-SH-105D1,300 | | 1 form C (CO) | | | 720mW | 5VDC | | 1-1721535-1 |
| OMIH-SH-112D1,300 | | | | | | 12VDC | 1-1721535-4 | |
| OMIH-SH-124D1,300 | | | | | | 24VDC | 1-1721535-7 | |
| OMIH-SH-105L1,300 | | | | | 540mW | 5VDC | 1-1721535-2 | |
| OMIH-SH-112L1,300 | | | | | | 12VDC | 1-1721535-5 | |
| OMIH-SH-124L1,300 | | | | | | 24VDC | 1-1721535-8 | |



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