Power PCB relay OMI/OMIH

- **1pole 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

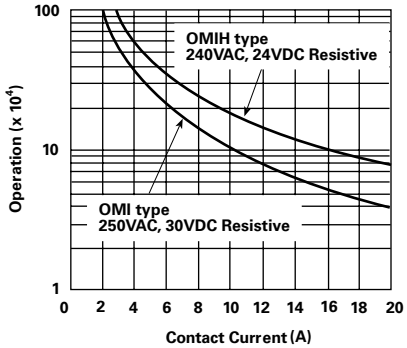
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
Standard coil, 720mW					
05	5	3.5	0.25	36	720
06	6	4.2	0.3	48.5	720
09	9	6.3	0.45	115	720
12	12	8.4	0.6	200	720
24	24	16.8	1.2	820	720
48	48	33.6	2.4	3300	720
Sensitive coil, 540mW					
05	5	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.

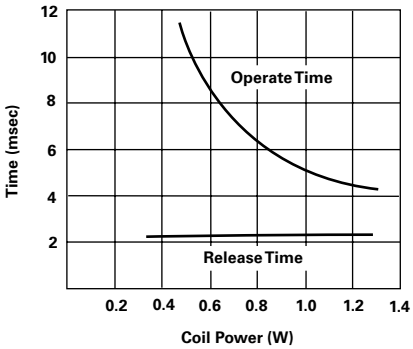
Insulation Data

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

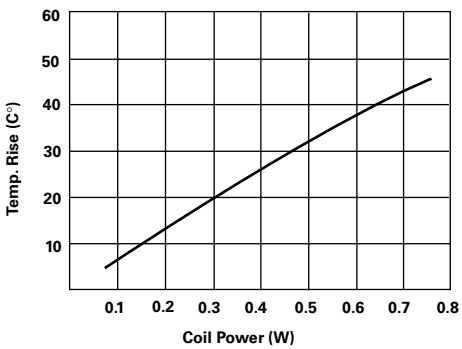
Electrical endurance



Operate time



Coil temperature rise



04-2011, Rev. 0411
www.te.com
© 2011 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

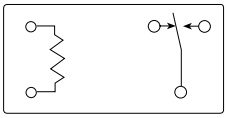
Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

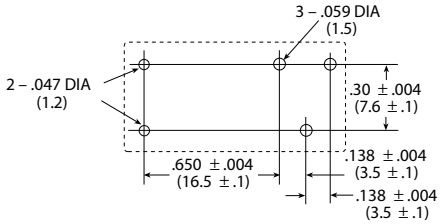
Power PCB relay OMI/OMIH (Continued)

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/s², 11ms
Terminal type	PCB-THT
Weight	13g
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/5s
Packaging/unit	box/1000 pcs.

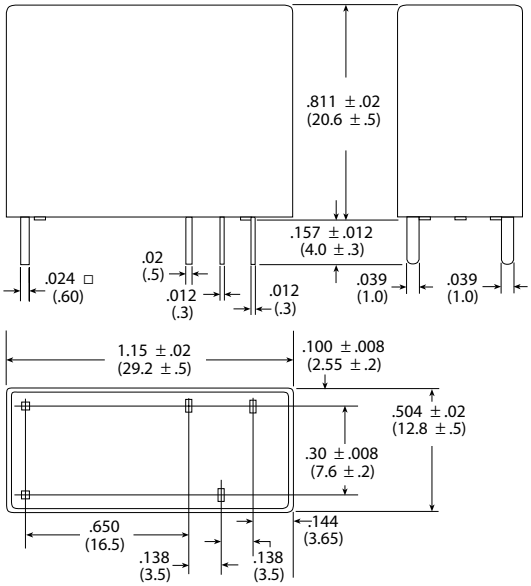
Terminal assignment
Bottom view on solder pins



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	**M1**	OMI : 1form A (NO), AgSnO
M	OMIH : 1 form A (NO), AgSnO		

Suffix

Blank	Standard (OMI)	**300**	Standard OMIH, 1 form C (CO), flux proof
		394	Standard OMIH, 1form A (NO), wash tight

04-2011, Rev. 0411
www.te.com
© 2011 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

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

04-2011, Rev. 0411
www.te.com
© 2011 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.