

# **Power PCB relay 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
- 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

VDE 40005414, UL E58304, CSA LR48471,

SEMKO 903200, CQC 08001024660, TUV R50139138

Technical data of approved types on request

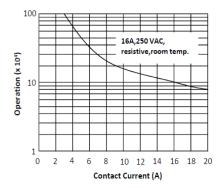
<b>Contact Data</b>				
Contact arrangement		1 Form A (NO), 1 Form C (CO)		
Rated voltage		250VAC / 30VDC		
Max. switching	voltage	250VAC / 30VDC		
Rated current		16A		
Contact mater	ial	Ag alloy		
Min. recomme	nded contact load	100mA 5VDC		
Initial contact r	esistance	100mΩ @ 1A, 6VDC		
Frequency of o	peration, with/without loa	ad 360 /18000h <sup>-1</sup>		
Operate/Relea	se time Max.			
standard coil:		15ms/8ms		
sensitive coil:		20ms/8ms		
Electrical endu	ırance			
Туре	Load	Cycles		
IEC 61810	16 A, 250 VAC, resist	tive 100×10 <sup>3</sup> at 85°C		
	16 A, 30VDC	30×10 <sup>3</sup> room temp		
UL508	16 A, 250 VAC, resist	tive 30×10 <sup>3</sup> at 85°C		
	16 A, 250 VAC genera (anti-explosive type	•		
Keep the vent hole open during test (except anti-explosive type)				
Mechanical en	durance	10X10 <sup>6</sup> ops		

Coil Data							
Coil voltage range 5 to 48VDC							
Coil insula	tion system acc	ording UL		class 105 (A)			
Coil versi	ons, DC coil						
Coil	Rated coil	Operate	Release	Coil	Rated coil		
code	voltage	voltage	voltage	resistance	power		
	(VDC)	VDC	VDC	Ohm +/-10%	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	Sensitive coil, 540mW						
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		

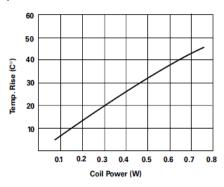
All figures are given for coil without pre-energization, at ambient temperature +23°C

Initial dielectric strength 1000Vms   between open contacts 5000Vms   Initial surge withstand voltage 10000V   between contact and coil 10000V   Initial insulation resistance 1000MΩ   Clearance/creepage ≥5.5mm/8mm	Insulation Data	
between contact and coil     5000Vms       Initial surge withstand voltage     10000V       between contact and coil     1000MΩ       Initial insulation resistance     1000MΩ       Clearance/creepage     1000MΩ	Initial dielectric strength	
Initial surge withstand voltage   between contact and coil 10000V   Initial insulation resistance 1000MΩ   Clearance/creepage	between open contacts	1000Vms
between contact and coil 10000V   Initial insulation resistance 1000MΩ   Clearance/creepage $\frac{1}{1}$	between contact and coil	5000Vms
$\begin{array}{c} \text{Initial insulation resistance} & 1000 \text{M}\Omega \\ \text{Clearance/creepage} & \end{array}$	Initial surge withstand voltage	
Clearance/creepage	between contact and coil	10000V
. •	Initial insulation resistance	1000ΜΩ
between contact and coil ≥5.5mm/8mm	Clearance/creepage	
	between contact and coil	≥5.5mm/8mm

#### **Electrical endurance**



#### Coil temperature rise





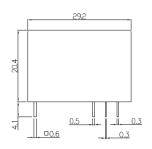
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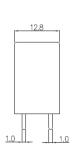
#### Other Data

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

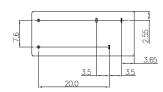
Ambient temperature -40°C to +85°C Category of environmental protection IEC61810 RTII - flux proof RTIII - wash tight Shock resistance(functional) 98m/s<sup>2</sup> Shock resistance(destructive) 980m/s<sup>2</sup> Resistance to soldering heat THT IEC 60068-2-20 RTII: 270°C/10s RTIII: 260°C/5s Terminal type PCB-THT Weight about 13g Tray/50, Carton/1000 Packaging unit

#### **Dimensions**



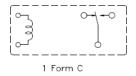


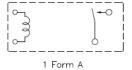
Tube/20, Carton/1000



### **Terminal Assignment**

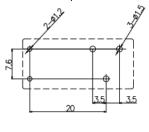
Bottom view on solder pins

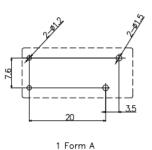




#### **PCB** layout

Bottom view on solder pins



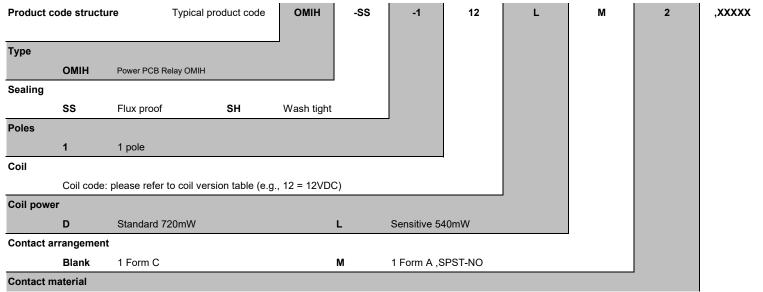


1 Form C

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 solding.



Blank	Standard (1 Form A : AgSnInO; 1 F	Form C: AgCdO)	
1	AgSnInO (Only 1 form C )	2	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

# **Mouser Electronics**

**Authorized Distributor** 

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# TE Connectivity:

2-1461183-8 OMI-SH-212L,594 OMI-SH-212D,594 OMI-SH-224D,594 OMI-SH-224L,594 OMI-SH-112L,394 OMI-SH-112D,394 OMI-SH-205D,594 OMI-SH-205L,594 OMI-SH-124L,394 OMIH-SH-112D,394 OMIH-SH-112D,394 OMIH-SH-105D,394 OMIH-SH-124L,394 OMIH-SH-124D,394 OMI-SS-212L,500 OMI-SH-105LM,394 OMI-SH-112LM,394 OMI-SS-112LM,000 OMI-SS-205L,500 OMI-SS-212D,500 OMI-SS-224L,500 OMIF-S-124LM,000 OMIH-SH-124L,000