

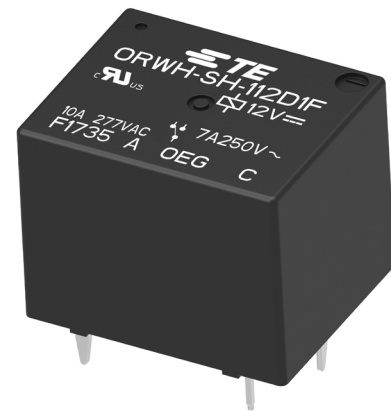
# SCHRACK MINIATURE PCB RELAY ORWH

GENERAL PURPOSE

LOW POWER PCB RELAYS

## FEATURES

- Compact relay with 1 form A and 1 form C contact arrangement.
- 15A switching capacity
- Flux proof or sealed type available.
- 6kV dielectric strength type available



## APPLICATION

- Appliances
- HVAC (Heating, Ventilation and Air Conditioning)
- emergency lighting.

## APPROVALS

- UL E82292
- TUV R50138967

Technical data of approved types on request



# SCHRACK MINIATURE PCB RELAY ORWH

General Purpose Low Power PCB Relays

## CONTACT DATA

Contact arrangement	1 form A, 1 NO 1 form C, 1 CO
Rated voltage	28VDC, 277VAC
Max. switching voltage	28VDC, 277VAC
Rated current	10A
Contact material	AgZnO, AgCdO, AgNi
Min. recommended contact load	100mA, 5VDC
Frequency of operation	600 ops./h
Operate/release time max.	10ms/5ms
Electrical endurance	
AgZnO: form A, 10A, 250VAC, res., +85°C, Class B or F only	100x10 <sup>3</sup> ops.
AgNi: 15A, 125VAC, res., +23°C	6x10 <sup>3</sup> ops.
AgCdO: form A, 10A, 250VAC, res., +85°C, Class B or F only	50x10 <sup>3</sup> ops.
AgNi: form A, 10A, 250VAC, res., +85°C, Class B or F only	50x10 <sup>3</sup> ops.
AgZnO: 15A, 125VAC, res., +23°C	6x10 <sup>3</sup> ops.
Contact ratings, form A/form B	10A/6A 250VAC resistive 10A/6A 28VDC resistive
Mechanical endurance, DC coil	10x10 <sup>6</sup> operations

## COIL DATA

Coil voltage range	3 to 48VDC
Operative range, IEC 61810	2
Coil insulation system according UL	Class A, B, F

## COIL VERSIONS, DC COIL

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
003	3	2.1	0.3	25	360
005	5	3.5	0.5	70.0	360
006	6	4.2	0.6	100	360
009	9	6.3	0.9	225	360
012	12	8.4	1.2	400	360
024	24	16.8	2.4	1600	360
048	48	33.6	4.8	6400	360

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

## INSULATION DATA

Initial dielectric strength	
between open contacts	750V <sub>rms</sub>
between contact and coil	1500V <sub>rms</sub>
Clearance/creepage	
between open contacts	>1.6mm
between contact and coil	>3.2mm
Clearance/creepage	
between open contacts, standard type	>1.6mm
for 6kV dielectrial strength type	>4mm
between contact and coil, standard type	>3.2mm
for 6kV dielectrial strength type	>4mm

## 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	-30 - 105°C
Category of environmental protection	
IEC 61810	RTII - flux proof RTIII - wash tight
Vibration resistance (functional)	1.5mm, 10-55 Hz
Shock resistance (functional)	10g for 11msec
Shock resistance (destructive)	100g
Weight	9.5g
Resistance to soldering heat THT	
IEC 60068-2-20	RTII: 270°C/10s RTIII: 260°C/5s
Packaging/unit	tube/25, carton box/1000

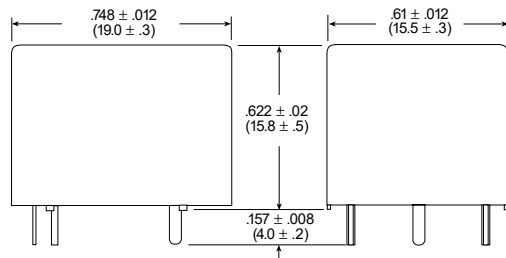
## ACCESSORIES

Product Code	Description
27E1064	Socket, rated 10A at 300VAC. UL Recognized for US and Canada. Designed to fit same suggested board layout as relay.

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General Purpose Low Power PCB Relays

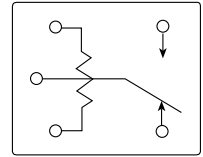
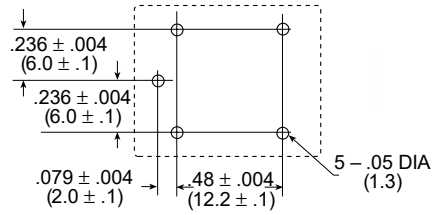
## DIMENSIONS (Unit: mm)



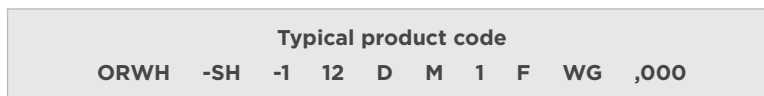
TERMINAL DIMENSIONS:  
COIL: 0.024 (0.6) DIA.  
LOAD: 0.12 x 0.35 (0.3 x 0.9)

## PCB LAYOUT / TERMINAL ASSIGNMENT

Bottom view on solder pins



## PRODUCT CODE STRUCTURE



### Type

<b>ORWH</b>	Miniature PCB Relay ORWH
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### Suffix

<b>,000</b>	Standard
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### Category of protection

<b>SS</b>	Flux proof
<b>SH</b>	Wash tight

### Option material

<b>Blank</b>	Standard
<b>H</b>	Insulation plate use type
<b>WG</b>	For domestic appliances (IEC 60335-1, 4 Edition);

### Number of poles

<b>1</b>	1 pole
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### Coil voltage

<b>Coil code</b>	please refer to coil versions table (e.g. 12 = 12VDC)
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### Insulation system designation

<b>Blank</b>	Class 105 (A)
<b>B</b>	Class 120 (B)
<b>F</b>	F = Class 155 (F)

### Coil version

<b>D</b>	Standard
<b>H</b>	High temperature type

### Contact material

<b>Blank</b>	AgCdo
<b>1</b>	AgZnO
<b>3</b>	AgNi

### Contact arrangement

<b>Blank</b>	1 form C, 1 CO
<b>M</b>	1 form A, 1 NO

## PRODUCT INFORMATION

Product code	Enclosure	Coil	Coil	Arrangement	Cont.mat.	Insulation	Option	Part number
ORWH-SH-105D1F,000	Wash tight	5VDC	Standard	1 From C, 1CO	AgZnO	Class F	Standard Type	<a href="#">1-1721150-0</a>
ORWH-SS-105D1F,000	Flux proof			1 From C, 1CO				<a href="#">2071448-5</a>
ORWH-SH-105DM1F,000	Wash tight			1 From A, 1NO				<a href="#">2071448-3</a>
ORWH-SS-109D1F,000	Flux proof	9VDC		1 From C, 1CO				<a href="#">2071448-4</a>
ORWH-SH-112D1F,000	Wash tight	12VDC		1 From C, 1CO				<a href="#">1-1721150-3</a>
ORWH-SS-112D1F,000	Flux proof			1 From C, 1CO				<a href="#">1721150-5</a>
ORWH-SH-112DM1F,000	Wash tight			1 From A, 1NO				<a href="#">2071448-8</a>
ORWH-SS-112DM1F,000	Flux proof	1 From A, 1NO		<a href="#">2071448-2</a>				
ORWH-SH-124D1F,000	Wash tight	24VDC		1 From C, 1CO				<a href="#">1-1721150-5</a>
ORWH-SS-124D1F,000	Flux proof			1 From C, 1CO				<a href="#">2-2071448-0</a>
ORWH-SH-124DM1F,000	Wash tight			1 From A, 1NO				<a href="#">1-2071448-5</a>
ORWH-SS-124DM1F,000	Flux proof			1 From A, 1NO				<a href="#">1-2071448-8</a>
ORWH-SH-105H3F,000	Wash tight	5VDC	High temp	1 From C, 1CO	AgNi	Class F	Insulation pl.	<a href="#">2071448-6</a>
ORWH-SS-105H3F,000	Flux proof	1 From C, 1CO		<a href="#">2071448-7</a>				
ORWH-SH-112H3F,000	Wash tight	1 From C, 1CO		<a href="#">2071448-9</a>				
ORWH-SS-112H3F,000	Flux proof	12VDC		1 From C, 1CO				<a href="#">1-2071448-2</a>
ORWH-SH-112HM3F,000	Wash tight	1 From A, 1NO		<a href="#">1-2071448-0</a>				
ORWH-SS-112HM3F,000	Flux proof	1 From A, 1NO		<a href="#">1-2071448-3</a>				
ORWH-SS-118H3FH,000	Flux proof	18VDC		1 From C, 1CO				<a href="#">1721948-6</a>
ORWH-SH-124H3F,000	Wash tight	24VDC		1 From C, 1CO				<a href="#">1-2071448-6</a>
ORWH-SS-124H3F,000	Flux proof			1 From C, 1CO				<a href="#">1-2071448-9</a>
ORWH-SH-124HM3F,000	Wash tight			1 From A, 1NO				<a href="#">1-2071448-4</a>
ORWH-SS-124HM3F,000	Flux proof			1 From A, 1NO				<a href="#">1-2071448-7</a>

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