# **Miniature Relay PCF**

## ■ Meet UL508 and TUV requirements

- 1 form A contact arrangement
- Quick connect terminal type and PC board type
- Meet 5000V dielectric voltage between coil and contacts
- Meet 10000V surge voltage between coil and contacts (1.2/50µs)

Typical applications Applicances, HVAC, office machines

#### Approvals

UL No. E58304/ TUV No. R50139097 Technical data of approved types on request

Contact Data	
Contact arrangement	1 form A, 1 NO
Rated voltage	250VAC, 277VAC, 24VDC
Rated current	25A
Switching power	6370VA
Contact material	AgCdO, AgSnO
Min. recommended contact load	100mA, 5VDC
Initial contact resistance	100mΩ at 1A, 6VDC
Frequency of operation	
with/without load	30/300 ops./min
Operate/release time max.	20/10ms
Electrical endurance	100x10 <sup>3</sup> operations at rated load
Contact ratings	25A, 250VAC resistive
	23A, 277VAC resistive
	20A, 250VAC resistive
	20A, 250VAC inductive, cosφ=0.4
Mechanical endurance	10x10 <sup>6</sup> operations.

### **Coil Data**

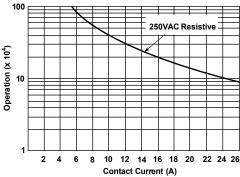
Coil voltage range	6 to 24VDC

#### Coil versions, DC coil

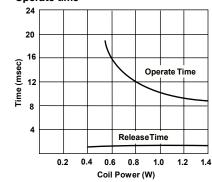
0011 0010					
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
06	6	4.50	0.30	40	900
09	9	6.75	0.45	90	900
12	12	9.00	0.60	160	900
24	24	18.00	1.20	640	900

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

#### **Electrical endurance**







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Coil Power (W)

1

OEG



# **RI** 🛓

### **Insulation Data**

Initial dielectric strength	
between open contacts	1000VAC, 50/60Hz, 1min
between contact and coil	5000VAC, 50/60Hz, 1min
Initial surge withstand voltage	
between contact and coil	8000V (1.2/50µS)
Initial insulation resistance	
between insulated elements	1000MΩ at 500VDC
Clearance/creepage	
between contact and coil	6.7/8mm

### **Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.tycoelectronics.com/customersupport/rohssupportcenter Ambient temperature -30 to 55°C Category of environmental protection IEC 61810 RTII-flux proof Vibration resistance (functional), 10 to 50Hz. 1.5mm double amplitude Vibration resistance (destructive), 10 to 50Hz.1.5mm double amplitude Shock resistance (functional), 98m/s2 half-sine wave of 6ms Schock resistance (destructive), half-sine wave of 11ms, permitted duration 1ms 980m/s2 Weight 28g Resistance to soldering heat THT

IEC 60068-2-20	260°C/10s
Packaging/unit	tube/20 pcs., box/500 pcs.

Coil temperature rise

0A

0.2 0.4 0.6 0.8 1.0 1.2 1.4

25A

20A

60

50

40

30

20

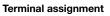
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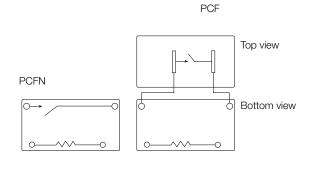
Rise

Temp.

# Miniature Relay PCF (Continued)

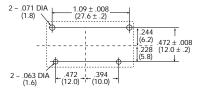


Bottom view on solder pins



## PCB layout

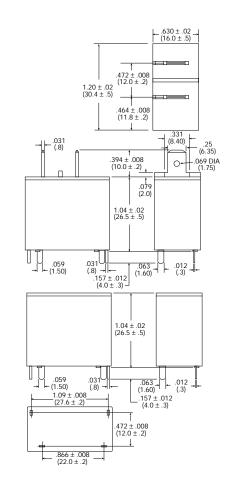
Bottom view on solder pins



PCFN

PCF

Dimensions



Product co	ode structure		Typical product code	PCF	-1	12	D	1	М	,000
Type PCF	Miniature Relay PCF									
Terminals/m										
	Quick connect terminals PC board terminals Low profile flange case									
Contact For	· · ·				1					
Coil Voltage Coil c	ode: please refer to coil version	on ta	ble (e.g. 12=12VDC)							
Coil Input D	Standard						Ĩ			
Contact Mat	erial									
1	AgCdO	2	AgSnO							
<b>Contact Arra</b>	angement									
М	1 form A, 1 NO contact									
Suffix ,000	Standard model									
,	01010000									

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# Miniature Relay PCF (Continued)

Product code	Terminals/mounting	Coil	Cont. material	Arrangement	Part number
PCF-105D2M,000	Quick connect terminals	5VDC	AgSnO <sub>2</sub>	1 form A (NO)	5-1440002-4
PCF-106D2M,000		6VDC	_	contact	5-1440002-5
PCF-112D1M,000		12VDC	AgCdO		9-1419129-2
PCF-112D2M,000			AgSnO <sub>2</sub>		3-1419153-4
PCF-124D1M,000		24VDC	AgCdO		9-1419129-5
PCF-124D2M,000			AgSnO <sub>2</sub>		5-1440002-8
PCF-148D1M,000		48VDC	AgCdO		2-1419146-4
PCF-148D2M,000			AgSnO <sub>2</sub>		5-1440002-9
PCFL-112D2M,000	Low profile flange case	12VDC			1649000-3
PCFL-124D2M,000		24VDC			1649000-4
PCFN-109D2M,000	PC board terminals	09VDC			1461193-7
PCFN-118D2M,000		18VDC			1461193-8
PCFN-124D2M,000		24VDC			1461193-9
PCFN-148D2M,000		48VDC			1461193-5

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