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	$100x10^3$ operations at rated load
Contact ratings	25A, 250VAC resistive 23A, 277VAC resistive 20A, 250VAC resistive 20A, 250VAC inductive, cosφ=0.4
Mechanical endurance	$10x10^6$ operations.

Coil Data

Coil voltage range	6 to 24VDC

Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power 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

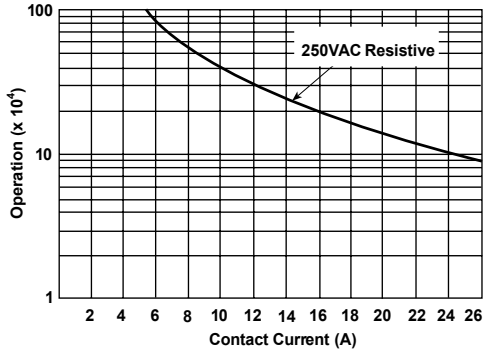
Insulation Data

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

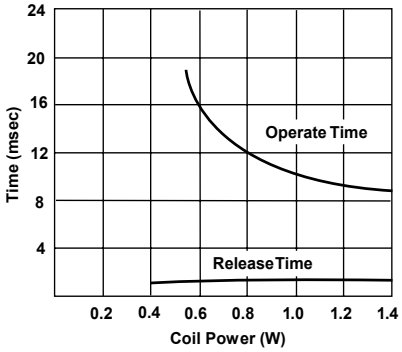
Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.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),	
half-sine wave of 6ms	98m/s2
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.

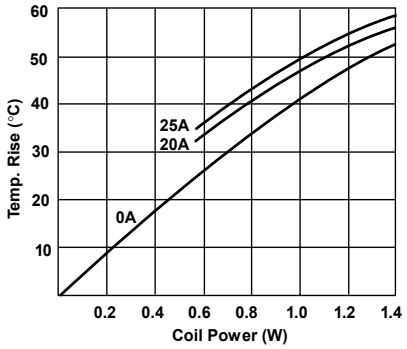
Electrical endurance



Operate time



Coil temperature rise



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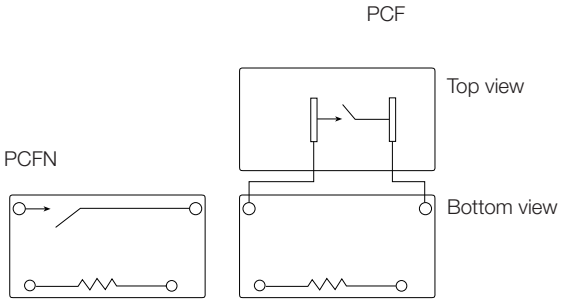
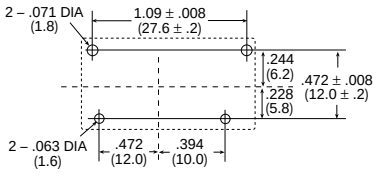
Miniature Relay PCF (Continued)

Terminal assignment
Bottom view on solder pins

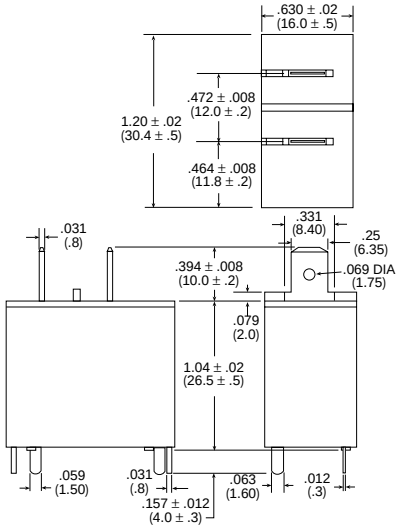


PCB layout
Bottom view on solder pins

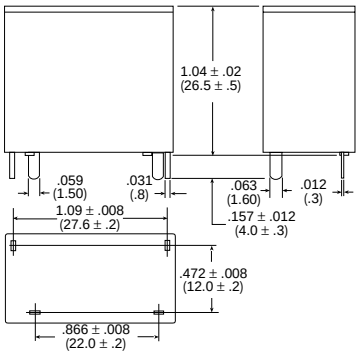


Dimensions

PCF



PCFN



Product code structure

Typical product code: **PCF -1 12 D 1 M ,000**

Type
- **PCF** Miniature Relay PCF

Terminals/mounting
- **Blank** Quick connect terminals
- **N** PC board terminals
- **L** Low profile flange case

Contact Form
- **1** 1 pole

Coil Voltage
- Coil code: please refer to coil version table (e.g. 12=12VDC)

Coil Input
- **D** Standard

Contact Material
- **1** AgCdO **2** AgSnO

Contact Arrangement
- **M** 1 form A, 1 NO contact

Suffix
- **,000** Standard model

Miniature Relay PCF (Continued)

Product code	Terminals/mounting	Coil	Cont. material	Arrangement	Part number
PCF-105D2M,000	Quick connect terminals	5VDC	$AgSnO_2$	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			$AgSnO_2$		3-1419153-4
PCF-124D1M,000		24VDC	AgCdO		9-1419129-5
PCF-124D2M,000			$AgSnO_2$		5-1440002-8
PCF-148D1M,000		48VDC	AgCdO		2-1419146-4
PCF-148D2M,000			$AgSnO_2$		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