THE DATASHEET OF

PCD-124D1M,010

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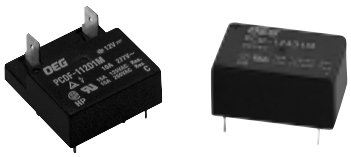


PCD/PCDF series

15 Amp Low Profile Power PC Board Relay

Appliances, HVAC, Office Machines

UL File No. E82292
CSA File No. LR48471
TUV File No. R9751117

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Features

- Low profile (10mm), 15 Amp switching capacity.
- 1 Form A contact arrangement.
- Sensitive 200mW coil (250mW on 48VDC coil).
- Immersion cleanable, sealed version available.
- Quick connect terminals available (PCDF).

Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO).
Material: AgSnO.
Max. Switching Rate: 300 ops./min. (no load).
30 ops./min. (rated load).
Expected Mechanical Life: 10 million operations (no load).
Expected Electrical Life: 100,000 operations (rated load).
Minimum Load: 100mA @ 5VDC.
Initial Contact Resistance: 100 milliohms @ 1A, 6VDC.

Contact Ratings

Ratings: 15A @ 125VAC resistive (PCDF only, load must be carried through QC terminals to achieve this rating),
10A @ 250VAC resistive,
10A @ 24VDC resistive.

5A @ 125VAC inductive (cosø= 0.4, L/R=7msec),
5A @ 24VDC inductive (cosø= 0.4, L/R=7msec).

Max. Switched Voltage: **AC:** 250V.
DC: 24V.
Max. Switched Current: 15A.
Max. Switched Power: 1,800VA, 240W.

Initial Dielectric Strength

Between Open Contacts: 750VAC 50/60 Hz. (1 minute).
Between Coil and Contacts: 2,500VAC 50/60 Hz. (1 minute).
Surge Voltage Between Coil and Contacts: 5,000V (1.2 / 50µs).

Initial Insulation Resistance

Between Mutually Insulated Elements: 1,000M ohms min. @ 500VDCM.

Coil Data

Voltage: 5 to 48VDC.
Nominal Power: 200 mW except 48VDC coil (250mW).
Coil Temperature Rise: 20°C max., at rated coil voltage.
Max. Coil Power: 130% of nominal.
Duty Cycle: Continuous.

Coil Data @ 20°C

PCD &PCDF				
Rated Coil Voltage (VDC)	**Nominal Current (mA)**	**Coil Resistance (ohms) ± 10%**	**Must Operate Voltage (VDC)**	**Must Release Voltage (VDC)**
5	40.0	125	3.75	0.50
6	33.3	180	4.50	0.60
9	22.5	400	6.75	0.90
12	17.0	720	9.00	1.20
24	8.6	2,880	18.00	2.40
48	5.2	9,200	36.00	4.80

Operate Data

Must Operate Voltage: 75% of nominal voltage or less.
Must Release Voltage: 10% of nominal voltage or more.
Operate Time: 15 ms max.
Release Time: 8 ms max.

Environmental Data

Temperature Range:
Operating: -30°C to +70°C
Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude
Operational: 10 to 55 Hz., 1.5mm double amplitude.
Shock, Mechanical: 1,000m/s² (100G approximately).
Operational: 100m/s² (10G approximately).
Operating Humidity: 20 to 85% RH. (Non-condensing).

Mechanical Data

Termination: **PCD:** Printed circuit terminals.
PCDF: Printed circuit terminals and quick connect terminals.
Enclosure (94V-0 Flammability Ratings): Sealed plastic case.
Weight: **PCD:** 0.31 oz (9g) approximately.
PCDF: 0.35 oz (10g) approximately.

Ordering Information

Typical Part Number ►	PCD	-1	24	D	1	M	H	,000

1. Basic Series:
PCD = PC Board Terminals. PCDF = Quick Connect Terminals.

2. Termination:
1 = 1 pole

3. Coil Voltage:
05 = 5VDC 09 = 9VDC 24 = 24VDC
06 = 6VDC 12 = 12VDC 48 = 48VDC

4. Coil Input:
D = Standard

5. Contact Material:
1 = AgSnO

6. Contact Arrangement:
M = 1 Form A, SPST-NO

7. Enclosure:
Blank = Vented (Flux-tight)* plastic cover H = Sealed plastic case

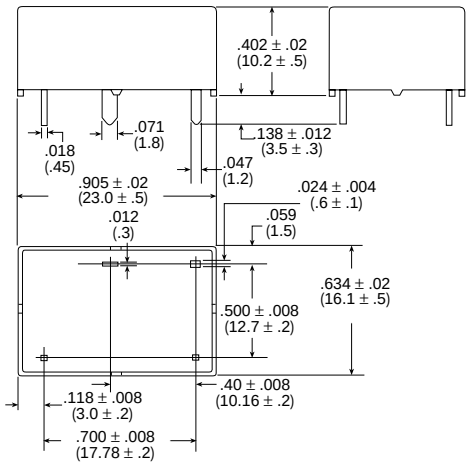
8. Suffix:
,000 = PCD standard model ,S000 = PCDF standard model Other Suffix = Custom model

* Not suitable for immersion cleaning processes.

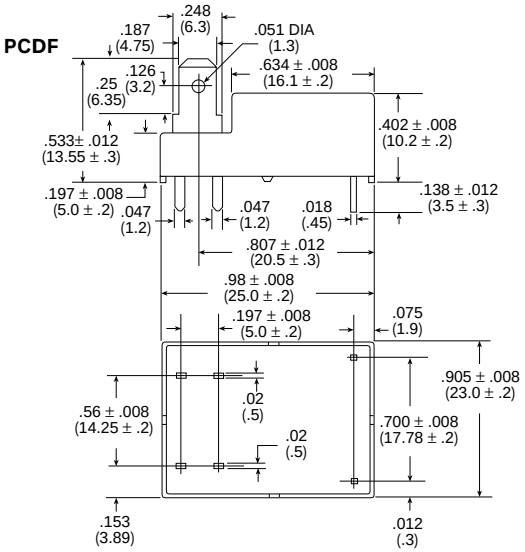
Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.
None at present.

Outline Dimensions

PCD

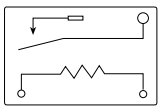


PCDF



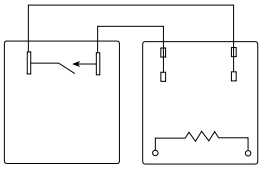
Wiring Diagrams

PCD



(Bottom View)

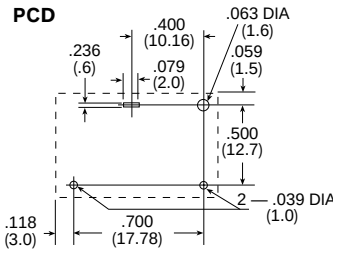
PCDF



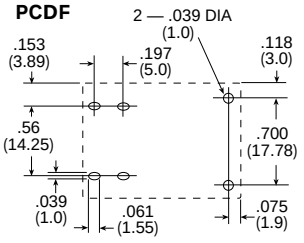
(Top View) (Bottom View)

PC Board Layouts (Bottom View)

PCD

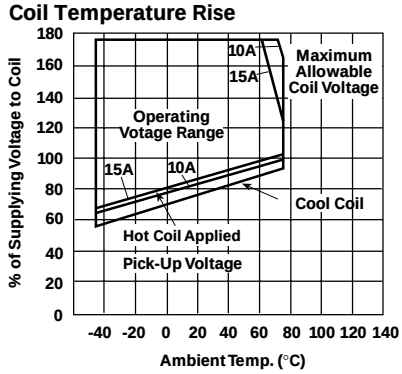


PCDF



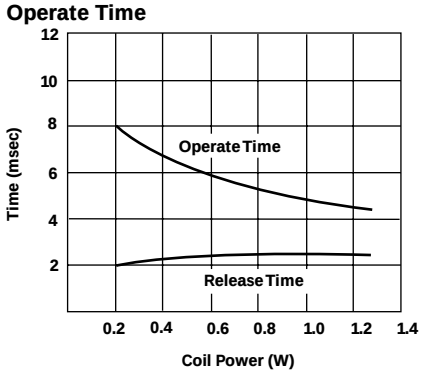
Reference Data

Coil Temperature Rise

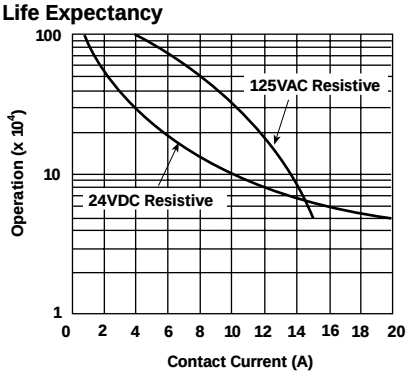


Note: This data is based on the max. allowable temperature for E type insulation coil (115°C).

Operate Time



Life Expectancy



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