

**PCJリレー**
**1 機種・型式**

TYPE・MODEL

**1.1 適用P/N**

Tyco P/N	Description	Coil Cord	Tyco P/N	Description	Coil Cord
1721081-1	PCJ-103D3M,301	3	2-1721081-2	PCJ-103D3MH,301S	3
1721081-2	PCJ-105D3M,301	5	2-1721081-3	PCJ-105D3MH,301S	5
1721081-3	PCJ-106D3M,301	6	2-1721081-4	PCJ-106D3MH,301S	6
1721081-4	PCJ-109D3M,301	9	2-1721081-5	PCJ-109D3MH,301S	9
1721081-5	PCJ-112D3M,301	12	2-1721081-6	PCJ-112D3MH,301S	12
1721081-6	PCJ-118D3M,301	18	2-1721081-7	PCJ-118D3MH,301S	18
1721081-7	PCJ-124D3M,301	24	2-1721081-8	PCJ-124D3MH,301S	24
1721081-8	PCJ-103D3MH,301	3	2-1721081-9	PCJ-103D3M,301M	3
1721081-9	PCJ-105D3MH,301	5	3-1721081-0	PCJ-105D3M,301M	5
1-1721081-0	PCJ-106D3MH,301	6	3-1721081-1	PCJ-106D3M,301M	6
1-1721081-1	PCJ-109D3MH,301	9	3-1721081-2	PCJ-109D3M,301M	9
1-1721081-2	PCJ-112D3MH,301	12	3-1721081-3	PCJ-112D3M,301M	12
1-1721081-3	PCJ-118D3MH,301	18	3-1721081-4	PCJ-118D3M,301M	18
1-1721081-4	PCJ-124D3MH,301	24	3-1721081-5	PCJ-124D3M,301M	24
1-1721081-5	PCJ-103D3M,301S	3	3-1721081-6	PCJ-103D3MH,301M	3
1-1721081-6	PCJ-105D3M,301S	5	3-1721081-7	PCJ-105D3MH,301M	5
1-1721081-7	PCJ-106D3M,301S	6	3-1721081-8	PCJ-106D3MH,301M	6
1-1721081-8	PCJ-109D3M,301S	9	3-1721081-9	PCJ-109D3MH,301M	9
1-1721081-9	PCJ-112D3M,301S	12	4-1721081-0	PCJ-112D3MH,301M	12
2-1721081-0	PCJ-118D3M,301S	18	4-1721081-1	PCJ-118D3MH,301M	18
2-1721081-1	PCJ-124D3M,301S	24	4-1721081-2	PCJ-124D3MH,301M	24

**1.2 品名**

PCJ - 1\*\*D3M x (\*\*;コイルボルテージ)

TYPE

(\*\*;Coil Voltage)

**1.3 外形寸法**

製品図面による

OUTLINE

As per Product Drawing sheet

**1.4 接点構成**

SPST(N. O)

CONTACT ARRANGEMENT

**1.5 接点区分**

銀合金

CONTACT MATERIAL

Ag alloy

**2 適合規格**

SAFETY STANDARD

**2.1 電気用品安全法**

準拠品

Conform with Japanese Electrical Appliance and Material Safety Law

2.2 海外安全規格 FOREIGN STANDARD	UL,CSA,VDE 規格取得 Recognized by UL,CSA,VDE
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### 3 コイル部

#### COIL RATING

3.1 定格電圧 RATED VOLTAGE	別表による See coil table
3.2 コイル抵抗 COIL RESISTANCE	別表による See coil table
3.3 定格消費電力 NORMINAL OPERATING POWER	約0.2W about 0.2W
3.4 許容電圧 MAX. ALLOWABLE COIL VOLTAGE	定格電圧の130% (但し、23°Cにおいて) 130% of rated coil voltage (at 23°C)

### 4 開閉部

#### CONTACT SPECIFICATION

4.1 接点定格 CONTACT RATING	A. AC250V 3A 抵抗負荷 (Resistive) DC 30V 3A 抵抗負荷 (Resistive)
4.2 最大通電電流 MAX CONTACT CURRENT	5A
4.3 接点許容電力 MAX. CONTACT CAPACITY	1250VA, 150W
4.4 最小適用負荷 MIN. APPLICABLE LOAD	DC5V 100mA (参考値/Reference value)

### 5 性能

#### PERFORMANCE

5.1 接触抵抗 CONTACT RESISTANCE	100mΩ以下 (初期値) DC6V 1A 電圧降下法にて 100mΩ Max. (at initial stage) voltage drop test method 6VDC 1A
5.2 動作電圧 OPERATE VOLTAGE	定格電圧の75%VDC以下 (但し、23°Cにおいて) 75%VDC Max. of coil rated voltage. (at 23°C)
5.3 復帰電圧 RELEASE VOLTAGE	定格電圧の5%VDC以上 (但し、23°Cにおいて) 5%VDC Min. of coil rated voltage. (at 23°C)
5.4 動作時間 OPERATE TIME	定格電圧操作にて 15ms以下 15ms Max. at rated voltage.
5.5 復帰時間 RELEASE TIME	定格電圧操作にて 5ms以下 5ms Max. at rated voltage

## 5.6 寿命

## LIFE

- |              |                                                            |
|--------------|------------------------------------------------------------|
| (1) 電氣的寿命    | 抵抗負荷、3A 250VAC 10万回以上 (開閉頻度 10回/分)                         |
|              | 抵抗負荷、3A 30VDC 10万回以上 (開閉頻度 10回/分)                          |
| ELECTRICALLY | Resistive load: 3A 250VAC 100,000ops. Min. (10 ops/minute) |
|              | Resistive load: 3A 30VDC 100,000ops. Min. (10 ops/minute)  |
| (2) 機械的寿命    | 接点無負荷にて 1,000 万回以上 (開閉頻度 300 回/分)                          |
| MECHANICALLY | 10,000,000 ops. at no load. (300 ops./minute)              |

## 5.7 絶縁耐電圧(検知電流1mA)

## DIELECTRIC STRENGTH (Leak current: 1mA)

- |                          |                                                 |
|--------------------------|-------------------------------------------------|
| (1) 同極接点間                | 750VAC 1分間 又は 900VAC 1秒間                        |
| BETWEEN CONTACTS         | 750VAC for 1 minute or 900VAC for 1 second.     |
| (2) コイル各接点間              | 4,000VAC 1分間 又は 4,800VAC 1秒間                    |
| BETWEEN COIL TO CONTACTS | 4,000VAC for 1 minute or 4,800VAC for 1 second. |

## 5.8 絶縁抵抗

## INSULATION RESISTANCE

500VDC にて、同極接点間・コイル接点間 100MΩ 以上  
Between contacts and coil to contact 100MΩ Min. at 500VDC

## 5.9 耐サージ電圧

## SURGE RESISTIVENESS

コイル接点間 7kV(1.2/50μs)  
Between coil to contact. 7KV (1.2/50μs)

## 5.10 温度上昇

## TEMPERATURE RISE

- |         |                                                                              |
|---------|------------------------------------------------------------------------------|
| (1) コイル | 接点に3Aを通电し、コイルに定格電圧を印加し、抵抗法にて<br>35K以下                                        |
| COIL    | 35K Max. by resistance method at Contact: 3A, Coil: rated voltage            |
| (2) 接点  | 接点に3Aを通电し、コイルに定格電圧を印加し、温度計法にて<br>40K以下                                       |
| CONTACT | 40K Max. by temperature measuring method at Contact: 3A, Coil: rated voltage |

## 5.11 耐振動性

## VIBRATION

- |                 |                                                                                                                   |
|-----------------|-------------------------------------------------------------------------------------------------------------------|
| (1) 誤動作         | 復振幅 1.5mm、振動数 10~55Hz の可変振動を 3 方向各 5 分間<br>加え、1ms 以上の接点誤動作なきこと。                                                   |
| ERROR OPERATION | No error operation than 1ms Max. when vibrate it from 3 directions for 5 minutes.<br>(Amplitude 1.5mm. 10 – 55Hz) |
| (2) 耐久          | 復振幅 1.5mm、振動数 10~55Hz の可変振動を 3 方向各 2 時間<br>加えた後、構造・特性に異常なきこと。                                                     |
| ENDURANCE       | No construction trouble when vibrate it from 3 directions for 2 hours.<br>(Amplitude 1.5mm. 10 – 55Hz)            |

## 5.12 耐衝撃性

## SHOCK

- |                 |                                                                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1) 誤動作         | 加速度98m/s <sup>2</sup> 作用時間 11ms の衝撃を 3 方向に各 3 回<br>加えた時、1ms 以上の接点誤動作なきこと。                                                                             |
| ERROR OPERATION | No error operate by contact more than 1ms Max. when shocks it from 3 directions<br>3 times. (at Peak acceleration 98 m/S <sup>2</sup> Duration 11ms.) |

(2) 耐久	加速度980m/s <sup>2</sup> 作用時間 6ms の衝撃を 3 方向に各 3 回加えた後、構造・特性に異常なきこと。
ENDURANCE	No construction trouble when shocks is from 3 directions 3 times. (at Peak acceleration 980 m/s <sup>2</sup> Duration 6ms.)
5.13 端子強度	各端子に押し込み 5N を 10 秒間加えて、外観・特性に異常なきこと。
TERMINAL STRENGTH	No construction and exterior trouble when push into any terminals by 5N for 10sec.
5.14 耐熱性	85°C中に 240 時間放置し、その後 2 時間常温・常湿中に放置し、構造・特性に異常なきこと。
THERMAL PROOF	Not any trouble on construction and characteristic when leave in 85°C 240h After that, leave it in standard condition for 2 hours.
5.15 耐寒性	-40°C中に 240 時間放置し、その後 2 時間常温・常湿中に放置し、構造・特性に異常なきこと。
COLD PROOF	Not any trouble on construction and characteristic when leave in -40°C 240h After that, leave it in standard condition for 2 hours.
5.16 耐湿性	温度 40°C 湿度 90%RH 中に 240 時間放置し、その後 2 時間常温・常湿中に放置し、絶縁抵抗 10MΩ 以上構造・特性に異常なきこと。
HUMIDITY PROOF	Insulation resistance 10MΩ Min. Not any troubles on construction and characteristic when leave in 40°C 90% 240h. After that, leave it in standard condition for 2 hours.
5.17 熱衝撃性	高温(85°C) 1時間、低温 (-40°C) 0.5 時間を 1 サイクルとして 100 サイクル繰り返した後、常温に 2 時間放置した後、構造・特性に異常なきこと。
THERMAL SHOCK	Not any troubles on construction and characteristic when leave it in -40°C and 85°C temp. room for 1 h each. That is one cycle. After 100 cycles has done, leave it on standard condition for 2 hours.
5.18 半田耐熱性	350±5°Cの溶融半田に 3 秒間又は、265°Cの溶液半田に 10 秒間端子を浸漬し構造・特性に異常なきこと。
SOLDERING THERMAL	Not any troubles on construction and characteristic. When dipped into soldering bath 350±5°C 3sec. or 265°C 10sec.
5.19 半田付け性	260°C 5 秒間にて正常に付くこと。
SOLDERABILITY	Not any problems solder dipped at 260°C 5 sec.

## 6 標準試験状態

### STANDARDS TEST CONDITION

- |     |                                 |                                                                   |
|-----|---------------------------------|-------------------------------------------------------------------|
| 6.1 | 温度<br>TEMPERATURE               | 20±5°C                                                            |
| 6.2 | 湿度<br>HUMIDITY                  | 60±10%RH                                                          |
| 6.3 | 測定条件<br>DIRECTON OF MEASUREMENT | 端子を下とする方向を標準とする。<br>Terminals down position is standard position. |

## 7 使用条件

### OPERATING CONDITION

- |     |                             |                                                                                  |
|-----|-----------------------------|----------------------------------------------------------------------------------|
| 7.1 | 温度<br>TEMPERATURE           | -30~85°C(但し、氷結・結露のないこと)<br>(On conditions without freezing and dew condensation) |
| 7.2 | 湿度<br>HUMIDITY              | 20~85%                                                                           |
| 7.3 | 取付け方向<br>MOUNTING DIRECTION | 端子を下とする方向を標準とする。<br>Terminal down position is standard position                  |

## 8 保管条件

### STORAGE CONDITION

- |     |                   |                                                                                                                                                                                                                                                                                                                          |
|-----|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1 | 温度<br>TEMPERATURE | -30~85°C(但し、氷結・結露のないこと)<br>(On conditions without freezing and dew condensation)                                                                                                                                                                                                                                         |
| 8.2 | 湿度<br>HUMIDITY    | 20~85%                                                                                                                                                                                                                                                                                                                   |
| 8.3 | 環境<br>ENVIRONMENT | (1) 硫化水素ガスなどの腐食ガス及び塩風が製品に当たらないところ。<br>Store in locations where the product or container is not expose to corrosive gas such as hydrogen sulfide gas or salty air.<br>(2) 目視で確認できる塵埃がないところ。<br>Store in location where no visible dust exists.<br>(3) 直射日光に当たらないところ。<br>Store in location not subject to direct sunlight. |

## 9 その他

OTHER

### 9.1 品番体系

NOMENCLATURE:

PCJ 1 03 D 3 M H xxxx  
 I II III IV V VI VII VIII

- |       |                                                                                                                                      |                                                               |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| I.    | Basic Series                                                                                                                         | PCJ Series                                                    |
| II.   | Termination:                                                                                                                         | 1 – 1 Pole                                                    |
| III.  | Coil voltage:                                                                                                                        | 03 to 24Vdc                                                   |
| IV.   | Coil power:                                                                                                                          | D – Standard Sensitivity (200mW)                              |
| V.    | Contact Material:                                                                                                                    | 3 – AgNi                                                      |
| VI.   | Contact arrangement:                                                                                                                 | M – 1 Make (SPST-NO)                                          |
| VII.  | Sealant:                                                                                                                             | Blank – Sealed Plastic Case<br>H – Sealed Version (Cleanable) |
| VIII. | Additional Numbers and /or Letters:<br>May be followed by up to four numbers and/or letters which do not represent electrical change |                                                               |

### 9.2 コイルテーブル

Coil Table

Coil Cord	Coil Rated Voltage (VDC)	Coil Resistance ( $\Omega$ ) $\pm 10\%$
3	3	45
5	5	125
6	6	180
9	9	405
12	12	720
18	3	1,620
24	24	2,880

## 10 変更履歴

CHANGE PROFILE

A1	Logo Revise Standard Temp.20→23°C	September 19, 2007
A	New Issue	
LTR	REVISION RECORD	DATE