# Signal PCB Relay TSC

- **1pole, 1A, 1 form C (CO)**
- **2.54mm terminal pitch same as I.C. socket terminal pitch**

Typical applications
Telecommunications, office machine


## Approvals

UL E82292, CSA LR48471-189
Technical data of approved types on request

## Contact Data

| | |
|---|---|
| Contact arrangement | 1 form C (CO) |
| Rated voltage | 24VDC, 120VAC |
| Max. switching voltage | 30VDC, 120VAC |
| Rated current | 1A |
| Switching power | 120VA, 24W |
| Contact material | AgNi Alloy |
| Min. recommended contact load | 1mA at 1VDC |
| Initial contact resistance | 50mΩ at 100mA, 6VDC |
| Frequency of operation | 72000 ops/h |
| Operate/release time max. | 5/5ms |
| Electrical endurance | |
| 1A, 120VAC, resistive, | $100x10^3$ ops. |
| 1A, 24VDC, resistive, | $100x10^3$ ops. |
| Contact ratings | 1A, 120VAC/24VDC |
| Mechanical endurance | $10x10^6$ operations |

## Coil Data

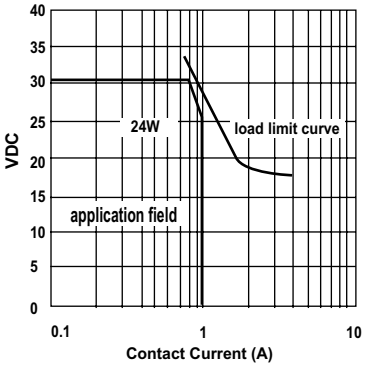
Coil voltage range 5 to 24VDC

**Coil versions, DC coil**

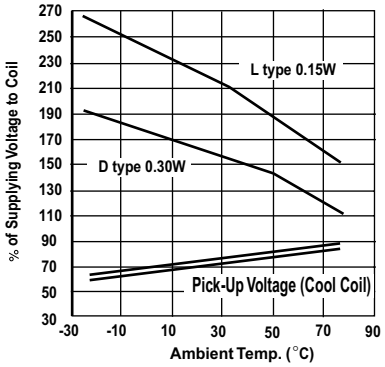
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|---|---|---|---|---|---|
| **Standard coil, 300mW** | | | | | |
| 05 | 5 | 3.75 | 0.25 | 83 | 300 |
| 06 | 6 | 4.5 | 0.3 | 120 | 300 |
| 09 | 9 | 6.75 | 0.45 | 270 | 300 |
| 12 | 12 | 9.0 | 0.6 | 480 | 300 |
| 24 | 24 | 18.0 | 1.2 | 1.920 | 300 |
| **Sensitive coil 150mW** | | | | | |
| 05 | 5 | 3.75 | 0.25 | 166 | 150 |
| 06 | 6 | 4.5 | 0.3 | 240 | 150 |
| 09 | 9 | 6.75 | 0.45 | 540 | 150 |
| 12 | 12 | 9.0 | 0.6 | 960 | 150 |
| 24 | 24 | 18.0 | 1.2 | 3840 | 150 |

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

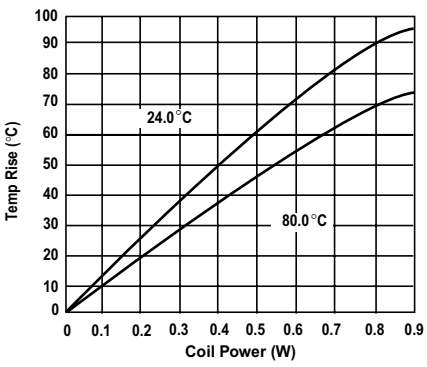
**Max DC load breaking capacity**




**Coil operative range**




**Coil temperature rise**




## Insulation Data

| | |
|---|---|
| Initial dielectric strength | |
| between open contacts | $400V_{rms}$ |
| between contact and coil | $1000V_{rms}$ |
| Initial surge withstand voltage | |
| between contact and coil | 1500V (10/160µs) |
| Clearance/creepage | |
| between contact and coil | 2.0/1.5mm |



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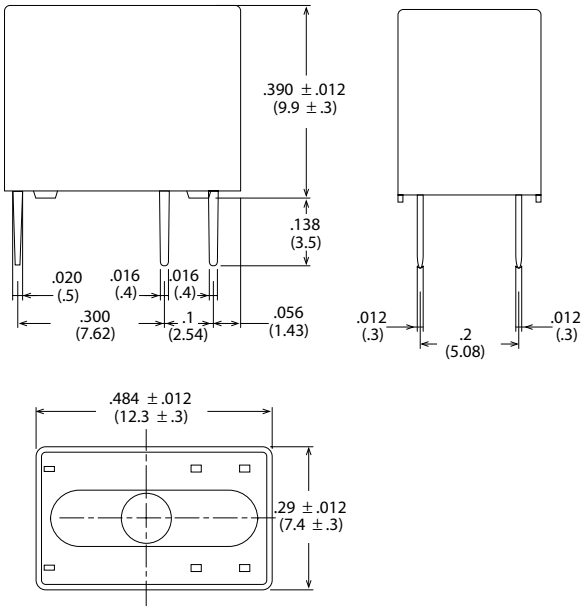
## Signal PCB Relay TSC (Continued)

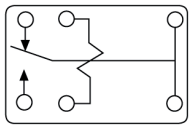
### Other Data

| | |
|---|---|
| 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 80°C |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof, RTIII - wash tight |
| Vibration resistance (functional) | 10 to 50Hz, 1.5mm double amplitude |
| Shock resistance (functional) | |
| IEC 60068-2-27 (half sine) | 98m/s², 11ms |
| Terminal type | PCB-THT |
| Weight | 3g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 260°C/5s |
| Packaging/unit | tube/50 pcs., box/2000 pcs. |

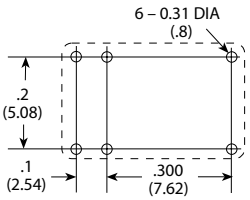
**Dimensions**




**Terminal assignment**
Bottom view on solder pins



**PCB layout**
Bottom view on solder pins




### Product code structure

Typical product code: **TSC -1 12 D 3 H ,000**

**Type**
**TSC** Signal PCB Relay TSC

**Pole**
**1** 1pole

**Coil**
Coil code: please refer to coil versions table

**Coil power**
**D** Standard 300mW **L** Sensitive 150mW

**Contact material**
**3** AgNi

**Sealing**
**Blank** Flux proof **H** Wash tight

**Suffix**
**,000** Standard

| Product code | Version | Contact | Cont.material | Coil power | Coil voltage | Sealing | Part number |
|---|---|---|---|---|---|---|---|
| TSC-105D3H,000 | 1A | 1 form C (CO) | AgNi Alloy | 300mW | 5VDC | Wash tight | 1-1419130-0 |
| TSC-112D3H,000 | | | | | 12VDC | | 2-1419130-1 |
| TSC-124D3H,000 | | | | | 24VDC | | 5-1440007-3 |
| TSC-105L3H,000 | | | | 150mW | 5VDC | | 1-1419130-2 |
| TSC-112L3H,000 | | | | | 12VDC | | 2-1419130-4 |
| TSC-124L3H,000 | | | | | 24VDC | | 2-1419130-8 |



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