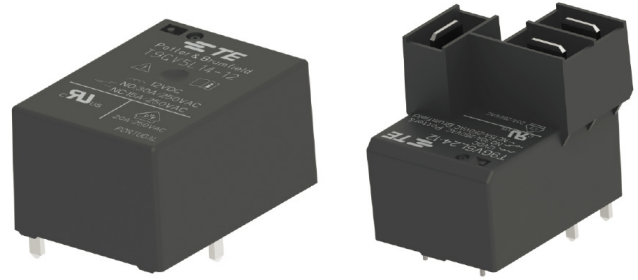


T9G series, DC coil 30A PCB Relay

- 30A switching in NO and 20A in CO
- 40A UL rating available
- Minimum Board space (29mm x 21.5mm)
- Meets UL 508 for clearance / creepage
- Meets IEC 61810-1 for reinforced insulation
- Option for load connections via 0.250" (6.3mm) quick connect terminals
- 4kV dielectric withstand and 8kV surge voltage between coil & contacts
- UL approved for 480 VAC switching
- WG versions are in accordance with IEC 60335-1

Typical applications
HVAC, Appliances, Industrial Controls, Energy Management



Approvals

UL 508; UL Listing #E214025
IEC 61810-1; VDE Listing #40045012;
CQC 18002196927 (only for standard version; in preparation for WG version)
Technical data of approved types on request

Contact Data

| | | | |
|---|--|-----|-----|
| Contact arrangement | 1 form A (NO), 1 form B (NC), 1 form C (CO) | | |
| Rated voltage | 250VAC | | |
| Max. switching voltage | 480VAC | | |
| Rated current | 30A | 20A | 20A |
| Contact material | AgSnO | | |
| Min. recommended contact load | 1A, 12VAC/VDC | | |
| Initial contact resistance | 300mΩ at 100mA/6VDC | | |
| Frequency of operation, with/without load | 360 cycles / hour = with 3600 cycles / hour = without | | |
| Operate/release time max., including bounce | 15/22ms | | |

Contact ratings ¹⁾

UL 508

| Type | Load | Cycles |
|------------------|---|---------------------|
| NO | 5A, 480VAC, General Purpose | 6x10 ³ |
| NO | 15,6A, 480VAC, Resistive | 100x10 ³ |
| NO | 30A, 277VAC, General Purpose, 85°C | 100x10 ³ |
| NO | 18A, 250VAC, Resistive, 105°C | 100x10 ³ |
| NO | 22A, 250VAC, Resistive | 250x10 ³ |
| NO | 22A FLA, 98A LRA, 120VAC, Def. Purpose | 100x10 ³ |
| NO | 14A FLA, 82A LRA, 250VAC, Def. Purpose, 70°C | 30x10 ³ |
| NO | 20A, 277VAC, Standard Ballast | 6x10 ³ |
| NO | 1HP, 125VAC | 100x10 ³ |
| NO ²⁾ | 40A, 277VAC, Resistive | 6x10 ³ |
| NO ²⁾ | TV8, 240VAC | 25x10 ³ |
| NC | 15A, 240VAC, General Purpose | 100x10 ³ |
| NC | 20A, 250VAC, Resistive (CO type only) | 20x10 ³ |
| NC | 30A LRA / 12A FLA, 250VAC, Definite Purpose | 30x10 ³ |
| NC | 1HP, 277VAC (CO type only) | 50x10 ³ |
| CO | 20A, 250VAC, Resistive | 15x10 ³ |
| CO | 20A /10A, 240VAC, Resistive | 100x10 ³ |
| CO | 30A / 15A Resistive, 250VAC | 20x10 ³ |
| CO | 30A FLA / 80A LRA (N.O.); 12A FLA, 30A LRA (N.C.) 250VAC, Definite Purpose | 30x10 ³ |
| CO | 80A LRA / 10A FLA (N.O.); 33A LRA / 10A FLA (N.C.) 250VAC, Definite Purpose | 30x10 ³ |

IEC 61810-1

| Type | Load | Cycles |
|------|---|---------------------|
| NO | 30A, 250VAC, Resistive, 85°C (PCB) | 75x10 ³ |
| NO | 20A, 250VAC, Resistive, 70°C (QC), 85°C (PCB) | 100x10 ³ |
| NO | 17A, 250VAC, Resistive, 105°C | 100x10 ³ |
| NO | 20A, 250VAC, Resistive, 85°C | 100x10 ³ |
| NO | 12A (12A), 250VAC, 60°C (per EN60730-1) | 150x10 ³ |
| NC | 10A, 250VAC, Resistive, 60°C (C.O. type only) | 50x10 ³ |
| CO | 20A, 250VAC, Resistive, 60°C (N.C.) | 10x10 ³ |
| CO | 20A/10A, 250VAC, Resistive, 60°C (N.O.) | 50x10 ³ |
| CO | 12A, 250VAC, Resistive, 85°C | 100x10 ³ |

- 1) Contact ratings at 40°C (unless otherwise noted) with relay properly vented.
Remove vent nib after soldering and cleaning.
- 2) Valid only for mounting and termination code 1.

| | |
|----------------------|-------------------------|
| Mechanical endurance | 10x10 ⁶ ops. |
|----------------------|-------------------------|

Coil Data

| | |
|-------------------------------------|-------------|
| Coil voltage range | 5 to 110VDC |
| Operative range, IEC 61810 | 2 |
| Coil insulation system according UL | Class F |

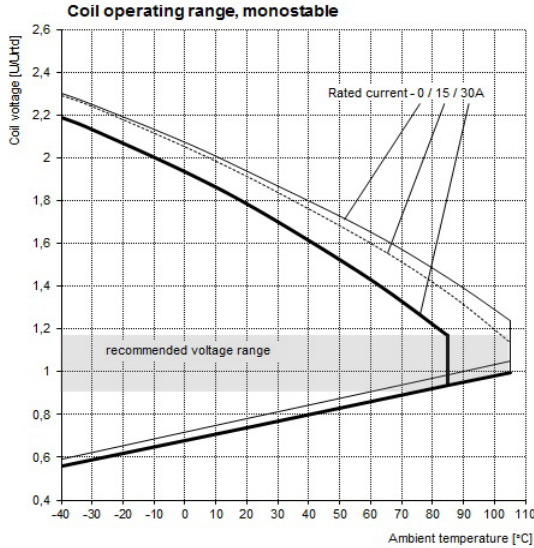
Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-----------------------|---------------------|
| 5 | 5 | 3.75 | 0.5 | 28 | 900 |
| 9 | 9 | 6.75 | 0.9 | 90 | 900 |
| 12 | 12 | 9 | 1.2 | 160 | 900 |
| 15 | 15 | 11.25 | 1.5 | 249 | 900 |
| 18 | 18 | 13.5 | 1.8 | 360 | 900 |
| 22 | 22 | 16.5 | 2.2 | 538 | 900 |
| 24 | 24 | 18 | 2.4 | 640 | 900 |
| 48 | 48 | 36 | 4.8 | 2,560 | 900 |
| 110 | 110 | 82.5 | 11 | 13,444 | 900 |

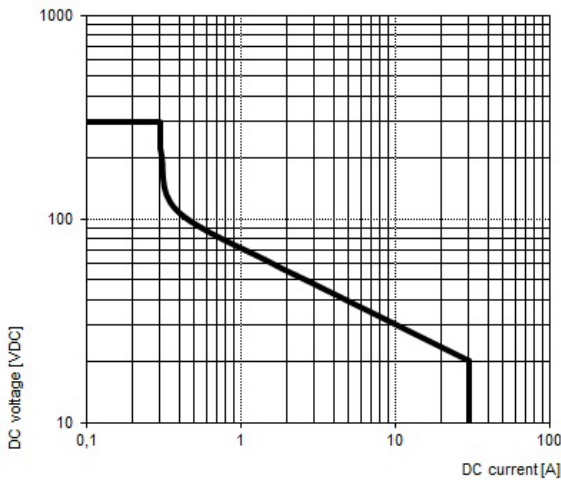
All figures are given for coil without preenergization, at ambient temperature +23°C.

T9G series, DC coil 30A PCB Relay (Continued)

Coil Data (continued)

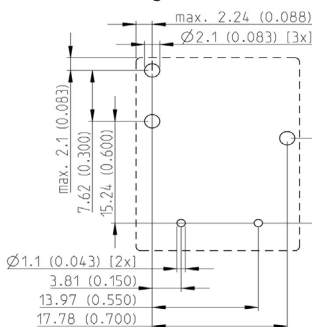


Max. DC load breaking capacity



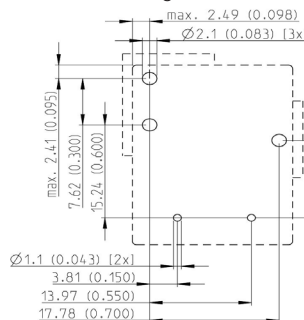
PCB layout

Bottom view on pins
T9G - Mounting and termination code 1



Only necessary terminals are present on single throw models. Consequently, some holes will be unnecessary for single throw models.

T9G - Mounting and termination code 2



Only necessary terminals are present on single throw models. Consequently, some holes will be unnecessary for single throw models.

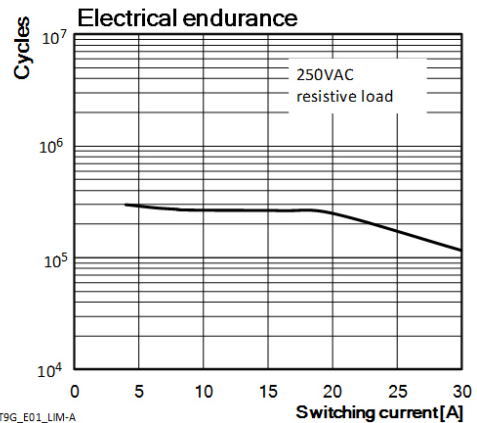
Insulation Data

| | |
|---------------------------------|-----------------------------|
| Initial dielectric strength | |
| between open contacts | 1500V _{rms} |
| between contact and coil | 4000V _{rms} |
| Initial surge withstand voltage | |
| between contact and coil | 8kV |
| Initial insulation resistance | |
| between insulated elements | 1x10 ⁹ Ω, 500VDC |
| Clearance/creepage | |
| between contact and coil | >6.4mm / >8mm |

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

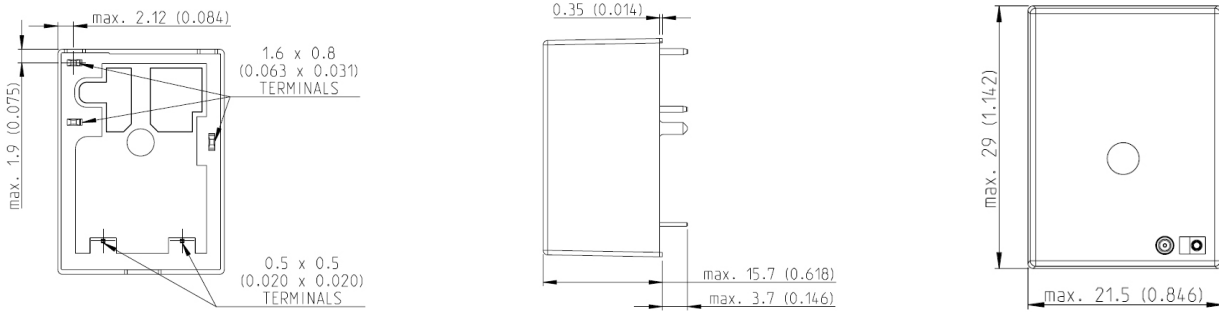
| | |
|--------------------------------------|---|
| Ambient temperature | |
| DC coil | Operating -40 to +105°C at reduced current |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof RTIII - wash tight |
| Vibration resistance (functional) | Opening NO contact >10g Opening NC contact >7g |
| Shock resistance (functional) | 10g for 11msec |
| Shock resistance (destructive) | 100g |
| Terminal type | pcb-tht and pcb-tht + quick connect |
| Weight | 18g mounting code 1 23g mounting code 2 |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 260°C/5s |
| Packaging/unit | 10/tube, 420/box (PCB + QC), 500/box (PCB) |



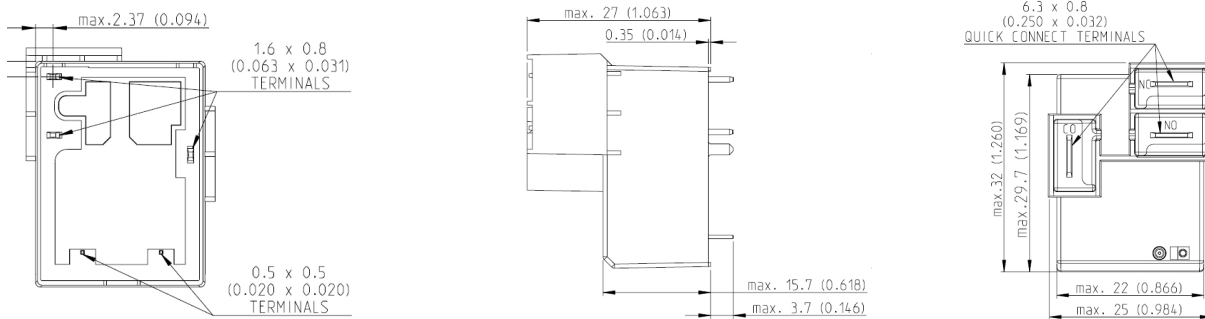
T9G series, DC coil 30A PCB Relay (Continued)

Dimensions

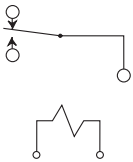
Mounting and termination code 1



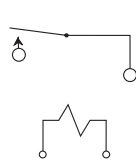
Mounting and termination code 2



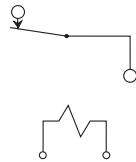
1 Form C (CO)



1 Form A (NO)



1 Form B (NC)



Product code structure

Typical product code

T9G S 5 L 2 4 -12

Type

T9G Power PCB or panel mount relay T9G

Enclosure

- S** Wash-tight plastic case with knock off nib (requires mounting code 1 or 2)
- V** Flux-proof plastic case (requires mounting code 1 or 2)

Contact arrangement

- 1** 1 form A (1 NO)
- 2** 1 form B (1 NC)
- 5** 1 form C (1 CO)

Coil Input

- L** DC voltage, 900mW

Mounting and termination

- 1** PCB mounting; PCB terminals for coil and contacts
- 2** PCB mounting; PCB term. for coil and contacts; 6.35mm (.250in) quick connect for contacts

Contact material

- 4** AgSnO (RoHS compliant)

Coil voltage

Coil code: please refer to coil versions table

Version

- Blank** Standard Version
- WG** Product in accordance with IEC 60335-1 (domestic appliances)

T9G series, DC coil 30A PCB Relay (Continued)

| Product Code | Enclosure | Contacts | Mounting | Contact Material | Coil | Part Number | | | | |
|---------------|---|-------------|---------------|------------------|--------|-------------|--|-------|--------|-------------|
| T9GV5L14-5 | Flux-proof plastic case (requires mounting code 1 or 2) | 1 CO | pcb terminals | AgSnO | 5VDC | 1558660-1 | | | | |
| T9GV5L14-9 | | | | | 9VDC | 1558660-2 | | | | |
| T9GV5L14-12 | | | | | 12VDC | 1558660-3 | | | | |
| T9GV5L14-12WG | | | | | 12VDC | 1-1558660-3 | | | | |
| T9GV5L14-15 | | | | | 15VDC | 1558660-4 | | | | |
| T9GV5L14-18 | | | | | 18VDC | 1558660-5 | | | | |
| T9GV5L14-22 | | | | | 22VDC | 1558660-6 | | | | |
| T9GV5L14-24 | | | | | 24VDC | 1558660-7 | | | | |
| T9GV5L14-24WG | | | | | 24VDC | 1-1558660-7 | | | | |
| T9GV5L14-48 | | | | | 48VDC | 1558660-8 | | | | |
| T9GV5L14-110 | | | | | 110VDC | 1558660-9 | | | | |
| T9GV1L14-5 | | | | | 1 NO | | | | 5VDC | 1558661-1 |
| T9GV1L14-9 | | | | | | | | | 9VDC | 1558661-2 |
| T9GV1L14-12 | | | | | | | | | 12VDC | 1558661-3 |
| T9GV1L14-12WG | | | | | | | | | 12VDC | 1-1558661-3 |
| T9GV1L14-15 | | | | | | | | | 15VDC | 1558661-4 |
| T9GV1L14-18 | | | | | | | | | 18VDC | 1558661-5 |
| T9GV1L14-22 | 22VDC | 1558661-6 | | | | | | | | |
| T9GV1L14-24 | 24VDC | 1558661-7 | | | | | | | | |
| T9GV1L14-24WG | 24VDC | 1-1558661-7 | | | | | | | | |
| T9GV1L14-48 | 48VDC | 1558661-8 | | | | | | | | |
| T9GV1L14-110 | 110VDC | 1558661-9 | | | | | | | | |
| T9GV1L24-12WG | 12VDC | 1-1558671-3 | | | | | | | | |
| T9GV1L24-24WG | 24VDC | 1-1558671-7 | | | | | | | | |
| T9GV2L14-5 | 1 NC | | | | | | | | 5VDC | 1558662-1 |
| T9GV2L14-9 | | | | | | | | | 9VDC | 1558662-2 |
| T9GV2L14-12 | | | | | | | | | 12VDC | 1558662-3 |
| T9GV2L14-12WG | | | | | | | | | 12VDC | 1-1558662-3 |
| T9GV2L14-15 | | | | | 15VDC | 1558662-4 | | | | |
| T9GV2L14-18 | | | | | 18VDC | 1558662-5 | | | | |
| T9GV2L14-22 | | | | | 22VDC | 1558662-6 | | | | |
| T9GV2L14-24 | | | | | 24VDC | 1558662-7 | | | | |
| T9GV2L14-24WG | | | | | 24VDC | 1-1558662-7 | | | | |
| T9GV2L14-48 | | | | | 48VDC | 1558662-8 | | | | |
| T9GV2L14-110 | | | | | 110VDC | 1558662-9 | | | | |
| T9GV2L24-12WG | | | | | 12VDC | 1-1558672-3 | | | | |
| T9GV2L24-24WG | | | | | 24VDC | 1-1558672-7 | | | | |
| T9GV5L24-5 | | | | | 1 CO | pcb + QC | | AgSnO | 5VDC | 1558670-1 |
| T9GV5L24-9 | | | | | | | | | 9VDC | 1558670-2 |
| T9GV5L24-12 | | | | | | | | | 12VDC | 1558670-3 |
| T9GV5L24-12WG | | | | | | | | | 12VDC | 1-1558670-3 |
| T9GV5L24-15 | 15VDC | 1558670-4 | | | | | | | | |
| T9GV5L24-18 | 18VDC | 1558670-5 | | | | | | | | |
| T9GV5L24-22 | 22VDC | 1558670-6 | | | | | | | | |
| T9GV5L24-24WG | 24VDC | 1-1558670-7 | | | | | | | | |
| T9GV2L24-24 | 1 NC | | | | | | | | 24VDC | 1558672-7 |
| T9GV2L24-48 | | | | | | | | | 48VDC | 1558672-8 |
| T9GV2L24-110 | | | | | | | | | 110VDC | 1558672-9 |

T9G series, DC coil 30A PCB Relay (Continued)

| Product Code | Enclosure | Contacts | mounting | Contact Material | Coil | Part Number |
|--------------|--|-----------|---------------|------------------|--------|-------------|
| T9GS5L14-5 | Wash-tight plastic case with knock off nib (requires mounting code 1 or 2) | 1 CO | pcb terminals | AgSnO | 5VDC | 1558665-1 |
| T9GS5L14-9 | | | | | 9VDC | 1558665-2 |
| T9GS5L14-12 | | | | | 12VDC | 1558665-3 |
| T9GS5L14-15 | | | | | 15VDC | 1558665-4 |
| T9GS5L14-18 | | | | | 18VDC | 1558665-5 |
| T9GS5L14-22 | | | | | 22VDC | 1558665-6 |
| T9GS5L14-24 | | | | | 24VDC | 1558665-7 |
| T9GS5L14-48 | | | | | 48VDC | 1558665-8 |
| T9GS5L14-110 | | | | | 110VDC | 1558665-9 |
| T9GS1L14-5 | | | | | | 1 NO |
| T9GS1L14-9 | 9VDC | 1558666-2 | | | | |
| T9GS1L14-12 | 12VDC | 1558666-3 | | | | |
| T9GS1L14-15 | 15VDC | 1558666-4 | | | | |
| T9GS1L14-18 | 18VDC | 1558666-5 | | | | |
| T9GS1L14-22 | 22VDC | 1558666-6 | | | | |
| T9GS1L14-24 | 24VDC | 1558666-7 | | | | |
| T9GS1L14-48 | 48VDC | 1558666-8 | | | | |
| T9GS1L14-110 | 110VDC | 1558666-9 | | | | |
| T9GS2L14-5 | | 1 NC | | | | |
| T9GS2L14-9 | | | | | 9VDC | 1558667-2 |
| T9GS2L14-12 | | | | | 12VDC | 1558667-3 |
| T9GS2L14-15 | | | | | 15VDC | 1558667-4 |
| T9GS2L14-18 | | | | | 18VDC | 1558667-5 |
| T9GS2L14-22 | | | | | 22VDC | 1558667-6 |
| T9GS2L14-24 | | | | | 24VDC | 1558667-7 |
| T9GS2L14-48 | | | | | 48VDC | 1558667-8 |
| T9GS2L14-110 | | | | | 110VDC | 1558667-9 |
| T9GS5L24-5 | | | | | | 1 CO |
| T9GS5L24-9 | 9VDC | 1558675-2 | | | | |
| T9GS5L24-12 | 12VDC | 1558675-3 | | | | |
| T9GS5L24-15 | 15VDC | 1558675-4 | | | | |
| T9GS5L24-18 | 18VDC | 1558675-5 | | | | |
| T9GS5L24-22 | 22VDC | 1558675-6 | | | | |
| T9GS5L24-24 | 24VDC | 1558675-7 | | | | |
| T9GS5L24-48 | 48VDC | 1558675-8 | | | | |
| T9GS5L24-110 | 110VDC | 1558675-9 | | | | |
| T9GS1L24-5 | | 1 NO | | | | |
| T9GS1L24-9 | | | | | 9VDC | 1558676-2 |
| T9GS1L24-12 | | | | | 12VDC | 1558676-3 |
| T9GS1L24-15 | | | | | 15VDC | 1558676-4 |
| T9GS1L24-18 | | | | | 18VDC | 1558676-5 |
| T9GS1L24-22 | | | | | 22VDC | 1558676-6 |
| T9GS1L24-24 | | | | | 24VDC | 1558676-7 |
| T9GS1L24-48 | | | | | 48VDC | 1558676-8 |
| T9GS1L24-110 | | | | | 110VDC | 1558676-9 |
| T9GS2L24-5 | | | | | | 1 NC |
| T9GS2L24-9 | 9VDC | 1558677-2 | | | | |
| T9GS2L24-12 | 12VDC | 1558677-3 | | | | |
| T9GS2L24-15 | 15VDC | 1558677-4 | | | | |
| T9GS2L24-18 | 18VDC | 1558677-5 | | | | |
| T9GS2L24-22 | 22VDC | 1558677-6 | | | | |
| T9GS2L24-24 | 24VDC | 1558677-7 | | | | |
| T9GS2L24-48 | 48VDC | 1558677-8 | | | | |
| T9GS2L24-110 | 110VDC | 1558677-9 | | | | |

Note. This list represents the most common types and does not show all variants covered by this datasheet. Other types on request.

单击下面可查看定价，库存，交付和生命周期等信息

[>>TE Connectivity\(泰科\)](#)