

SCHRACK MINIATURE PCB RELAY RE

GENERAL PURPOSE LOW POWER PCB RELAYS

INTRODUCTION

TE Connectivity (TE)'s miniature power PCB relays RE is general purpose relay designed for various types of loads (e.g., resistive, inductive) with optimized height. The relay is designed as 1 pole 6A with 1 form A (NO) contact with sensitive coil (200mW) and is in wash tight version.

Other advantages include: high initial dielectric strength, PCB area is only 200mm².

FEATURES

- 1 pole 6 A, 1 form A (NO) contact
- Sensitive coil 200 mW
- 4 kV coil-contact
- Optimized height 10.6mm
- PCB area 200mm²
- Wash tight
- Product in accordance to IEC 60335-1 (domestic appliances)

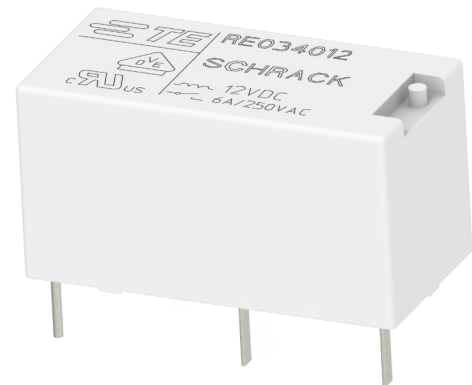
APPLICATIONS

- PLC's
- Timers
- Temperature control
- I/O cards
- White goods

APPROVALS

- VDE Cert. No. 40010578
- UL E214025

Technical data of approved types on request



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General Purpose Relays | Low Power PCB Relays

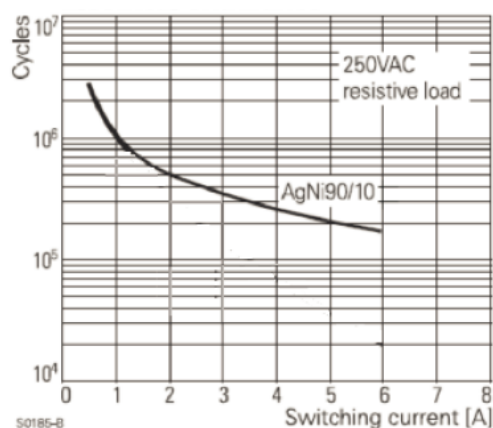
CONTACT DATA

| | |
|---|------------------|
| Contact arrangement | 1 form A (NO) |
| Rated voltage | 250VAC |
| Max. switching voltage | 400VAC |
| Rated current | 6A |
| Limiting making current, max 4s, duty factor 10% | 15A |
| Breaking capacity max. | 1500VA |
| Contact material | AgNi 90/10 |
| Frequency of operation, with/without load | 360/72000 ops./h |
| Operate/release time max. | 10/5ms |
| Bounce time max. | 4ms |

CONTACT RATINGS

| Type | Contact | Load | Cycles |
|----------------------|---------|-----------------------------------|---------------------|
| IEC 61810 | | | |
| RE034 | A (NO) | 6A, 250VAC, $\cos\phi=1$, 70°C | 100x10 ³ |
| UL61810-1 (UL508) | | | |
| RE034 | A (NO) | 6A, 250VAC, general purpose, 70°C | 100x10 ³ |
| RE034 | A (NO) | B300 pilot duty 40°C | 6x10 ³ |
| RE034 | A (NO) | 6A, 30VDC, general purpose, 70°C | 100x10 ³ |
| Mechanical endurance | | >30x10 ⁶ operations | |

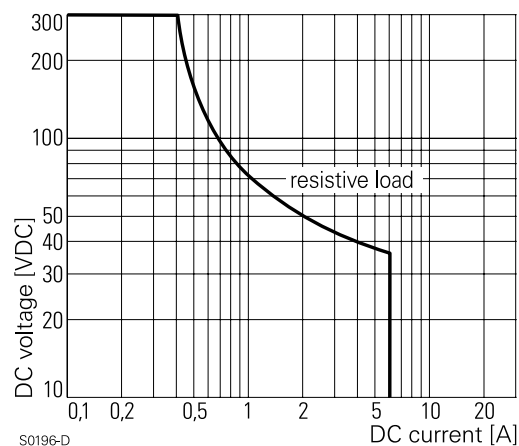
ELECTRICAL ENDURANCE



COIL DATA

| | |
|---|-------------|
| Coil voltage range | 5 to 48 VDC |
| Operative range, IEC 61810 | 2 |
| Coil insulation system according UL1446 | F |

MAX. DC LOAD BREAKING CAPACITY



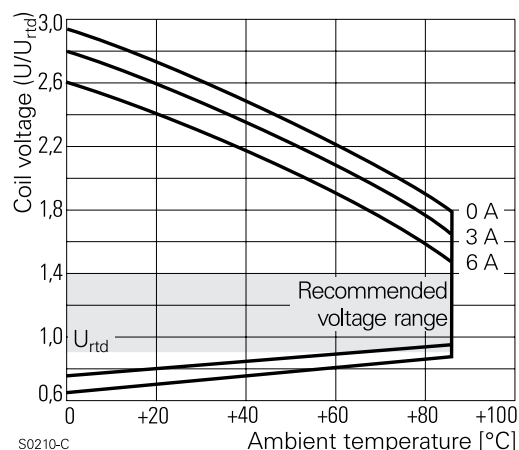
COIL VERSIONS, DC COIL

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%^{1)}$ | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|--|---------------------|
| 005 | 5 | 3.5 | 0.5 | 125 | 200 |
| 006 | 6 | 4.2 | 0.6 | 180 | 200 |
| 009 | 9 | 6.3 | 0.9 | 405 | 200 |
| 012 | 12 | 8.4 | 1.2 | 720 | 200 |
| 018 | 18 | 12.6 | 1.8 | 1620 | 200 |
| 024 | 24 | 16.8 | 2.4 | 2880 ¹⁾ | 200 |
| 048 | 48 | 33.6 | 4.8 | 11520 ¹⁾ | 200 |

1) Coil resistance $\pm 15\%$.

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

COIL OPERATING RANGE DC



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INSULATION DATA

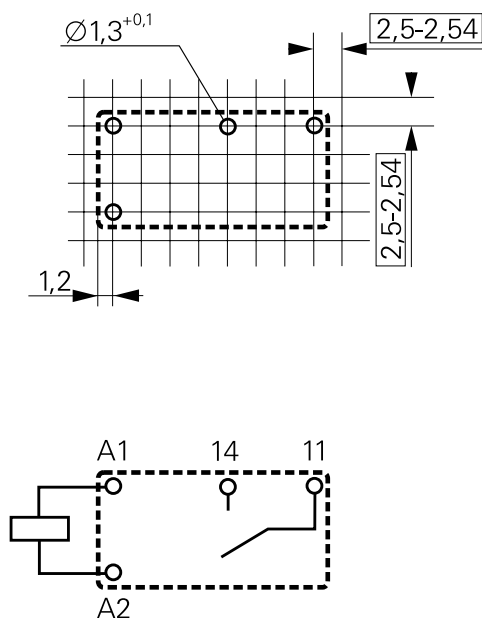
| | |
|------------------------------------|-----------------------|
| Initial dielectric strength | |
| Between open contacts | 1000V _{rms} |
| Between contact and coil | 4000V _{rms} |
| Initial insulation resistance | |
| Open contact circuit | >10x10 ⁹ Ω |
| Coil-contact circuit | >10x10 ⁹ Ω |
| Clearance/creepage | |
| Between contact and coil | ≥4/4mm |
| Material group of insulation parts | IIIa |
| Tracking index of relay base | PTI250V |

OTHER DATA

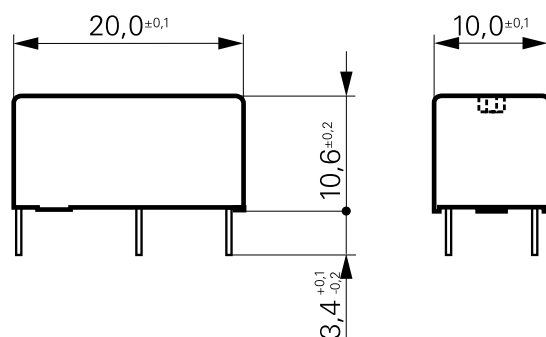
| | |
|--------------------------------------|--|
| Material compliance | EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter |
| Ambient temperature | -40 to +70°C -40 to +85°C at 4A |
| Category of environmental protection | |
| IEC 61810 | RTIII - wash tight |
| Vibration resistance (functional) | 10g |
| Terminal type | PCB-THT |
| Weight | 8 g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 260°C/5s |
| Packaging/unit | tube/25 pcs., box/500 pcs. |

PCB LAYOUT / TERMINAL ASSIGNMENT

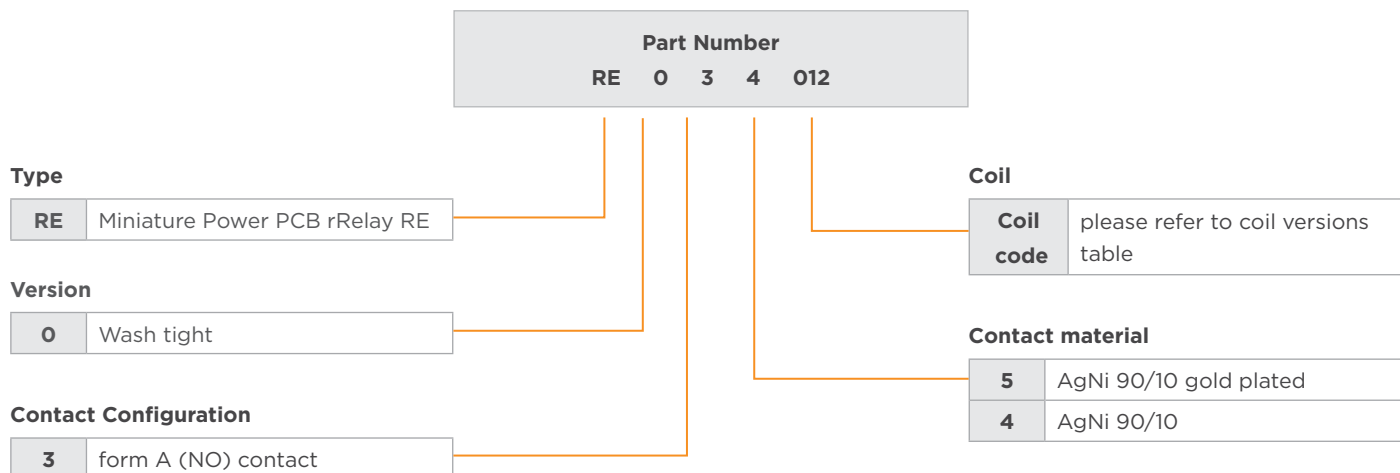
Bottom view on solder pins



DIMENSIONS (UNIT: mm)



PRODUCT CODE STRUCTURE



PRODUCT INFORMATION

| Product code | Version | Contacts | Contact material | Coil | TE Part Number |
|--------------|------------|-------------|------------------------|--------|-----------------------------|
| RE034005 | wash tight | NO contacts | AgNi 90/10 | 5 VDC | 2-1416010-3 |
| RE034006 | wash tight | NO contacts | AgNi 90/10 | 6 VDC | 2-1416010-4 |
| RE034009 | wash tight | NO contacts | AgNi 90/10 | 9 VDC | 2-1416010-5 |
| RE034012 | wash tight | NO contacts | AgNi 90/10 | 12 VDC | 2-1416010-6 |
| RE034018 | wash tight | NO contacts | AgNi 90/10 | 18 VDC | 3-1416010-2 |
| RE034024 | wash tight | NO contacts | AgNi 90/10 | 24 VDC | 2-1416010-7 |
| RE035005 | wash tight | NO contacts | AgNi 90/10 gold plated | 5 VDC | 1956226-3 |
| RE035006 | wash tight | NO contacts | AgNi 90/10 gold plated | 6 VDC | 1956226-5 |
| RE035009 | wash tight | NO contacts | AgNi 90/10 gold plated | 9 VDC | 1956226-7 |
| RE035012 | wash tight | NO contacts | AgNi 90/10 gold plated | 12 VDC | 1956226-1 |
| RE035018 | wash tight | NO contacts | AgNi 90/10 gold plated | 18 VDC | 1956226-9 |
| RE035021 | wash tight | NO contacts | AgNi 90/10 gold plated | 21 VDC | 1-1956226-1 |
| RE035024 | wash tight | NO contacts | AgNi 90/10 gold plated | 24 VDC | 1956226-2 |
| RE035048 | wash tight | NO contacts | AgNi 90/10 gold plated | 48 VDC | 1-1956226-3 |

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