

# SCHRACK MINIATURE PCB RELAY REL

## GENERAL PURPOSE LOW POWER PCB RELAYS

### INTRODUCTION

TE Connectivity (TE)'s Miniature Power PCB Relays REL is general purpose relay designed for various types of loads (e.g., resistive, inductive) with low height. The relay is designed as 1 pole 5A with 1 form A (NO) contact and is in flux proof version. The relay is especially suited for applications white goods, consumer electronics, etc.

### FEATURES

- 1 pole 5 A, 1 form A (NO) contact
- Low height 12.0mm
- Especially suited for applications white goods, consumer electronics, etc.
- Plastic materials according to IEC 60335-1 (domestic appliances)

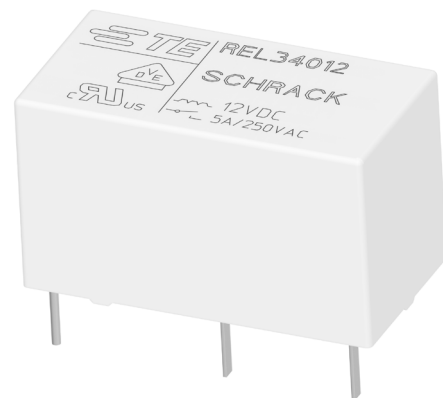
### APPLICATIONS

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

### APPROVALS

- VDE Cert. No. 40010579
- UL E214025

Technical data of approved types on request



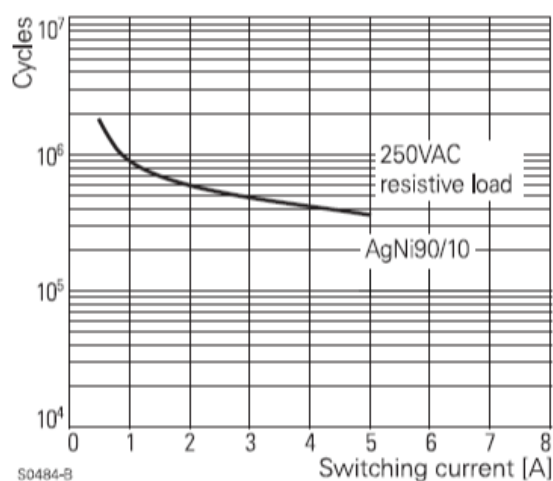
# SCHRACK Miniature PCB Relay REL

General Purpose Relays | Low Power PCB Relays

## CONTACT DATA

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

## ELECTRICAL ENDURANCE



## CONTACT RATINGS

| Type                 | Contact | Load                           | Cycles              |
|----------------------|---------|--------------------------------|---------------------|
| IEC 61810            |         |                                |                     |
| REL34                | A (NO)  | 5A, 250VAC, cosφ=1, 85°C       | 100x10 <sup>3</sup> |
| REL34                | A (NO)  | 3A, 400VAC, cosφ=1, 85°C       | 400x10 <sup>3</sup> |
| UL61810-1 (UL508)    |         |                                |                     |
| REL34                | A (NO)  | 5A, 250VAC, resistive, 85°C    | 100x10 <sup>3</sup> |
| Mechanical endurance |         | >10x10 <sup>6</sup> operations |                     |

## CONTACT DATA

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

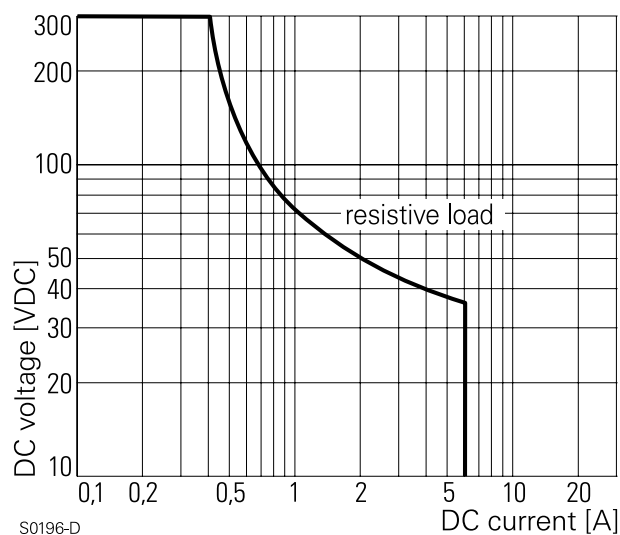
## COIL VERSIONS, DC COIL

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% <sup>1)</sup> | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|-------------------------------------|---------------------|
| 5         | 5                 | 3.75                | 0.5                 | 70                                  | 357                 |
| 6         | 6                 | 4.5                 | 0.6                 | 100                                 | 360                 |
| 12        | 12                | 9.0                 | 1.2                 | 400                                 | 360                 |
| 24        | 24                | 18.0                | 2.4                 | 1600                                | 360                 |
| 36        | 36                | 27.0                | 3.6                 | 3600 <sup>1)</sup>                  | 360                 |
| 48        | 48                | 36.0                | 4.8                 | 6400 <sup>1)</sup>                  | 360                 |

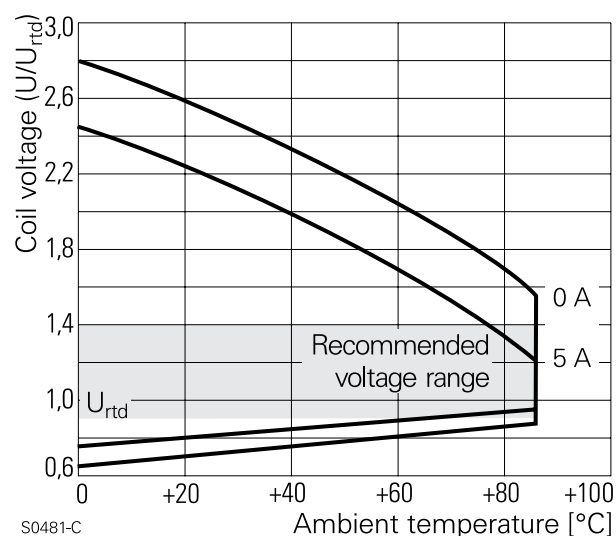
1) Coil resistance ±15%.

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

## MAX. DC LOAD BREAKING CAPACITY



## COIL OPERATING RANGE DC



INSULATION DATA

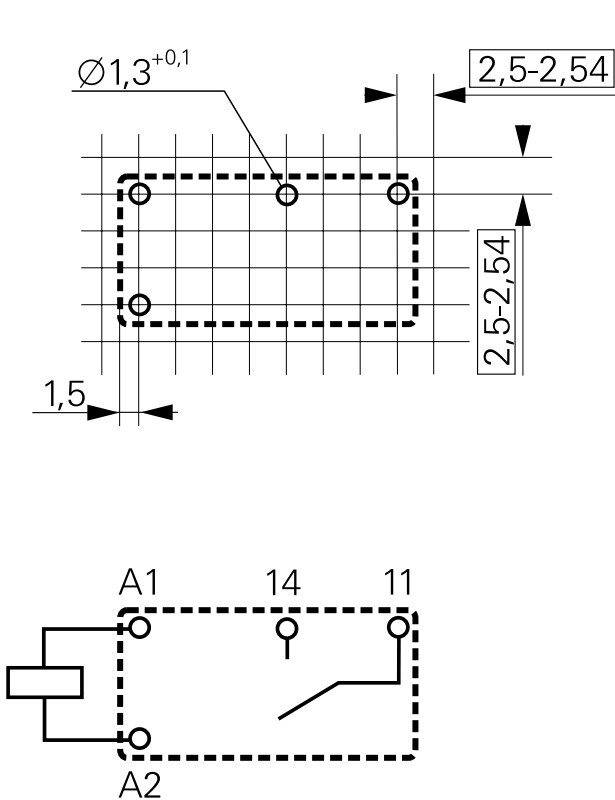
|                                    |                       |
|------------------------------------|-----------------------|
| Initial dielectric strength        |                       |
| Between open contacts              | 1000V <sub>rms</sub>  |
| Between contact and coil           | 3000V <sub>rms</sub>  |
| Initial insulation resistance      |                       |
| Open contact circuit               | >10x10 <sup>9</sup> Ω |
| Coil-contact circuit               | >10x10 <sup>9</sup> Ω |
| Clearance/creepage                 |                       |
| Between contact and coil           | ≥4/4mm                |
| Material group of insulation parts | IIIa                  |

OTHER DATA

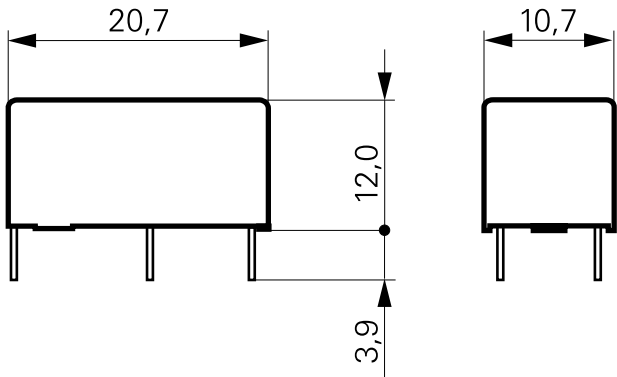
|                                      |  |
|--------------------------------------|--|
| Material compliance                  | EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at <a href="http://www.te.com/customersupport/rohssupportcenter">www.te.com/customersupport/rohssupportcenter</a> |
| Resistance to heat and fire          | according EN60335, par.30  |
| Ambient temperature                  | -40 to +85°C   |
| Category of environmental protection |  |
| IEC 61810                            | RTII - flux proof  |
| Shock resistance (destructive)       | 100 g  |
| Terminal type                        | PCB-THT  |
| Weight                               | 5 g  |
| Resistance to soldering heat THT     |  |
| IEC 60068-2-20                       | 270°C/10s  |
| Packaging/unit                       | tube/25 pcs., box/500 pcs.   |

PCB LAYOUT / TERMINAL ASSIGNMENT

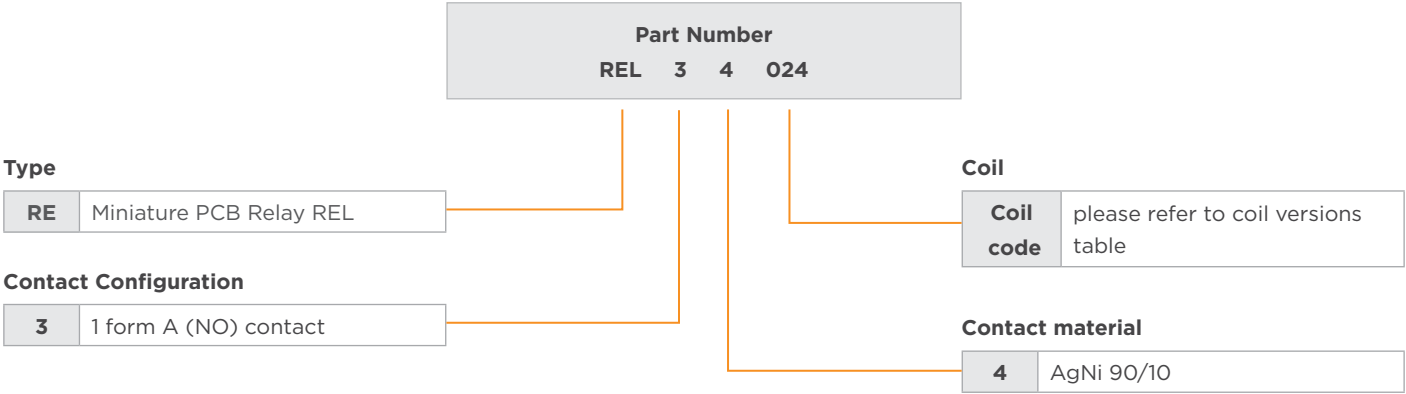
Bottom view on solder pins



DIMENSIONS (UNIT: mm)



PRODUCT CODE STRUCTURE



PRODUCT INFORMATION

| Product code | Version    | Contacts                 | Contact material | Coil  | TE Part Number |
|--------------|------------|--------------------------|------------------|-------|----------------|
| REL34006     | flux proof | 1 form A<br>1 NO contact | AgNi90/10        | 6VDC  | 3-1415535-5    |
| REL34012     |            |                          |                  | 12VDC | 3-1415535-6    |
| REL34024     |            |                          |                  | 24VDC | 3-1415535-7    |
| REL34048     |            |                          |                  | 48VDC | 3-1415535-8    |

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