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|------|--|-------------|----------|----------|----|
| NAME | Customer drawing Product Specification Forcibly guided relay SR6 | DWG NO: | 2158003 | REVISION | A1 |
| | | OPTIONAL NO | SR6_Spec | | |

| | | |
|-----------------------------|------------------------------------|--|
| Department: RPG D&E Appl | Drawer: Knut Dankert 24.06.2010 | Approved: Frank Liebusch 05.07.2010 |
|-----------------------------|------------------------------------|--|

Supplier
Tyco Electronics Logistics AG

Ampèrestrasse 3
9323 Steinach
Switzerland

Manufacturer
Tyco Electronics Austria GmbH

Schrackstraße 1
A-3830 Waidhofen/Thaya
Austria

**Neutral, monostable relay SR6
with 6 or 4 forcibly guided contacts according to EN50205 class A
PCB relay for DC operation**

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Version history

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| ----- | A1 | 10-07-05 | Bittermann | New drawing |
| ECR-NO.: | Rev | Date | Name | Info |

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Attachment:

Quality alert form

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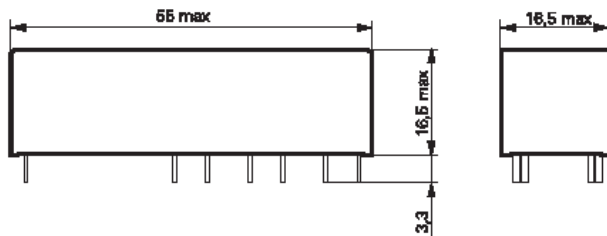
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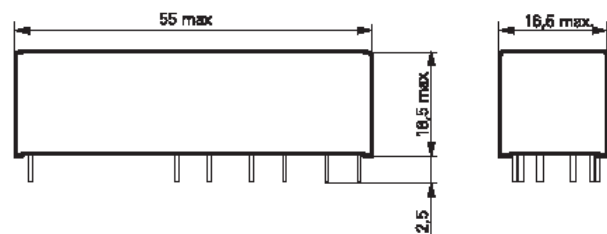
1 Dimensions

1.1 Dimensional drawing (in mm)

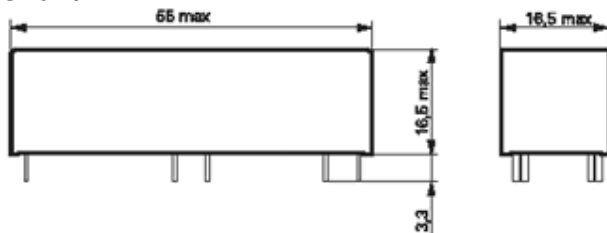
SR6 A/B/C



SR6 V

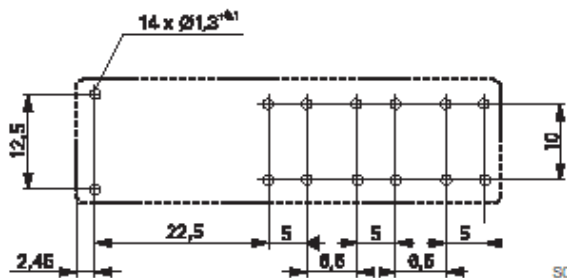


SR6 D/M

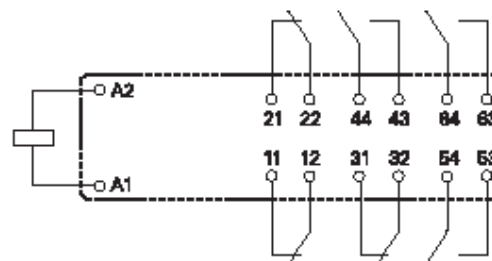


1.2 Mounting hole layout / Terminal assignment (Bottom view)

SR6 A



3 NO + 3 NC version



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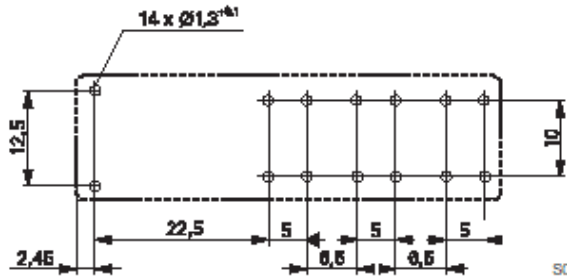
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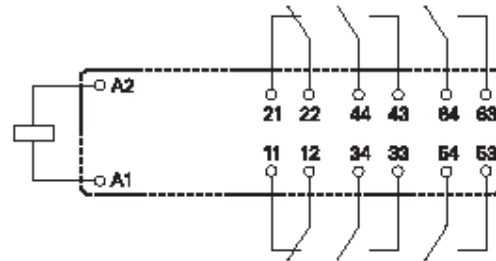
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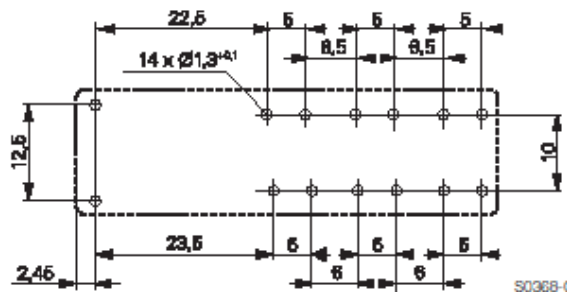
SR6 B



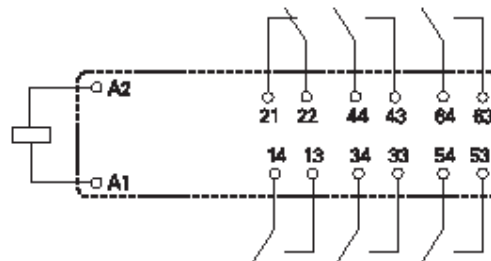
4 NO + 2 NC version



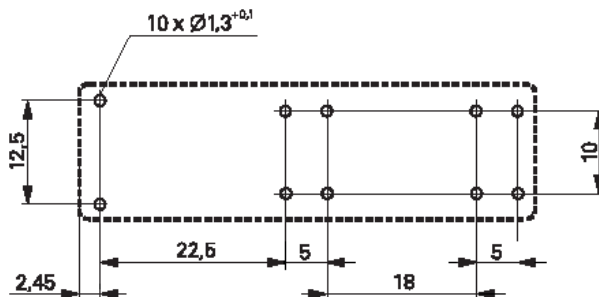
SR6 C



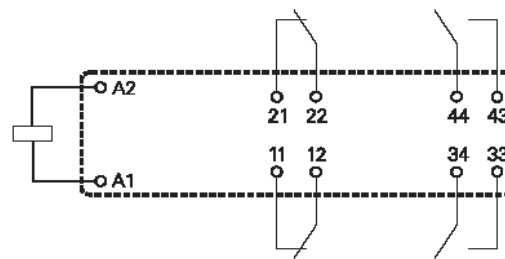
5 NO + 1 NC version



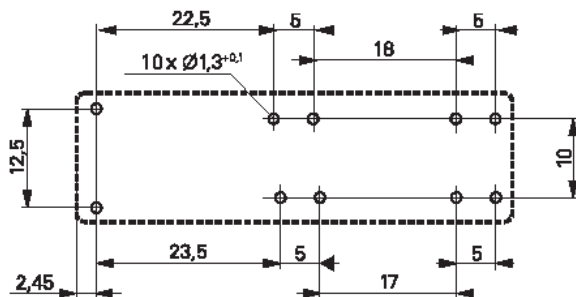
SR6 D



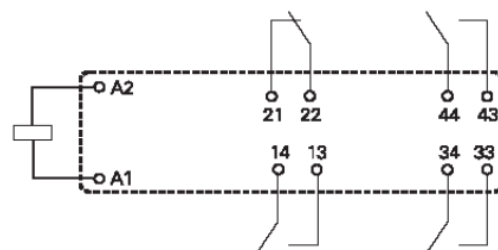
2 NO + 2 NC version



SR6 M



3 NO + 1 NC version

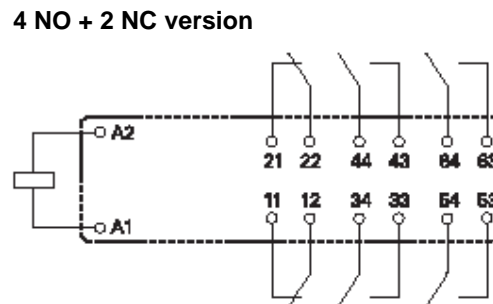
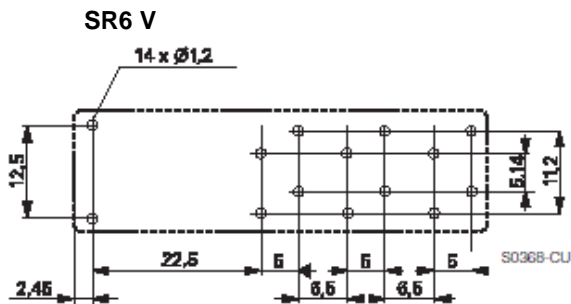


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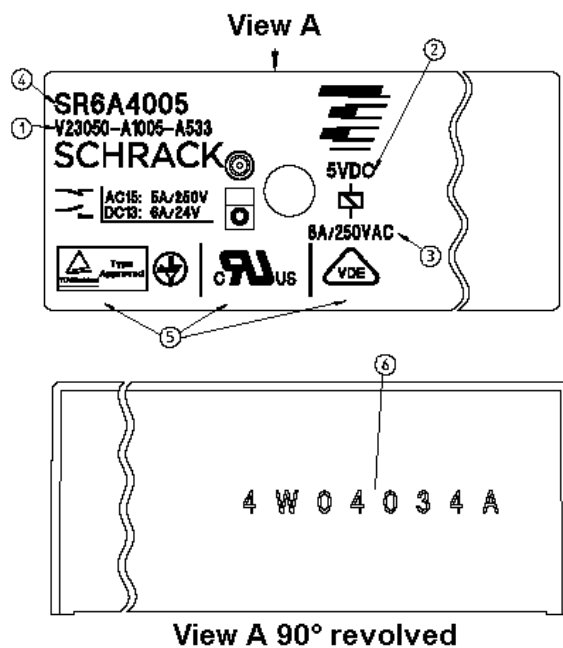
SR6 V allows clearance/creepage of 5.5 mm on the pcb.

Soldering terminals for PCB mounting.

Square coil terminals width 0.5 x 0.5 mm. Rectangular contact terminals width 0.5 x 0.8 mm. All data without tin coating.

The thickness of tin coating lies empirically in the range of 0.08 ... 0.2 mm.

1.3 Marking and Datecode



- ① Relay typ (prior product key 1200mW version only)
- ② Rated coil voltage and voltage type
- ③ Rated contact load
- ④ Relay typ (see part code / ordering code)
- ⑤ Approvals
- ⑥ Date code
position 1, 2: plant (Plant Waidhofen/Th = 4W)
position 3, 4: last two digits of production year
position 5, 6: week
position 7: day (1=Monday; 2=Tuesday...)
position 8: shift (A = early; B = afternoon; C = night)

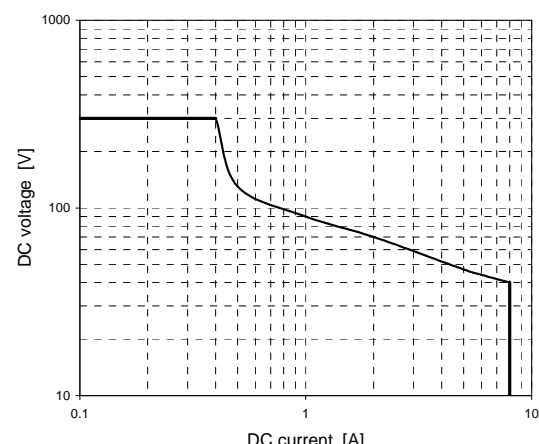
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2 Contact data [If no otherwise stated all values are given for 23°C ambient temperature]

| | | | | | | |
|---|---|---------|---|---|---|---|
| 2.1 Type code (block 2) | A | B and V | C | D | M | |
| 2.2 No. of contacts and type | Make (NO) | 3 | 4 | 5 | 2 | 3 |
| | Break (NC) | 3 | 2 | 1 | 2 | 1 |
| 2.3 Contact assembly | single contacts, forcibly guide (linked) according to EN50205 class A | | | | | |
| 2.4 Contact material (block 3) | AgSnO ₂ or AgSnO ₂ + 0,2 µm Au | | | | | |
| 2.5 Rated / Maximum switching voltage | 250 V _{AC} / 400 V _{AC} | | | | | |
| 2.5.1 Maximum breaking capacity AC | 2,000 VA | | | | | |
| 2.5.2 Minimum contact load (5V/10mA) | 50 mW | | | | | |
| 2.5.3 Maximum DC load breaking capacity |  | | | | | |
| 2.6 Max. switching current and continuous current at maximum ambient temperature | 1 NO contact: 8 A and (simultaneously) | | | | | |
| 2.6.1 Overload capacity ! Non Switching ! | 1 NC contact: 5A and all other contacts: 1A | | | | | |
| NO contact | 5060 A ² s | | | | | |
| I ² t value up to max. 450A for max. 25 ms | 4050 A ² s | | | | | |
| NC contact | | | | | | |
| I ² t value up to max. 450 A for max. 20 ms | | | | | | |
| 2.6.2 Short circuit protection acc. IEC60947-5-1 | 10 A | | | | | |
| Weld-free protection at I _{pSCC} ≥ 1kA with NEOZED Fuse links, size D01; utilization category gL/gG acc. IEC60269-1; IEC60269-3-1; VDE036-T301 | 6 A | | | | | |
| Rated fuse link current for NO contact | | | | | | |
| Rated fuse link current for NC contact | | | | | | |

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2.7 Electrical endurance and utilization category

2.7.1 Make contact (NO)

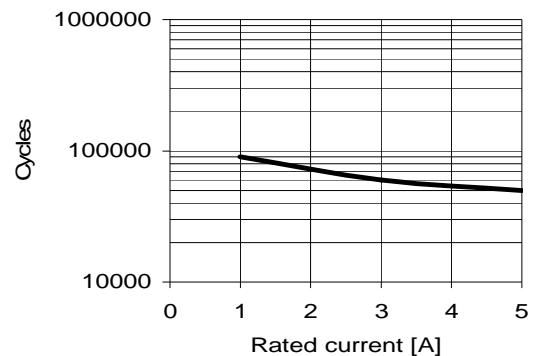
2.7.1.1 AC Inductive loads
 Standard IEC60947-5-1 AC-15 endurance
 1NO contact switch cycle 0.1Hz

2.7.1.2 Utilization category acc. EN60947-5-1
 AC 15

2.7.1.3 UL contact rating B300 Pilot duty

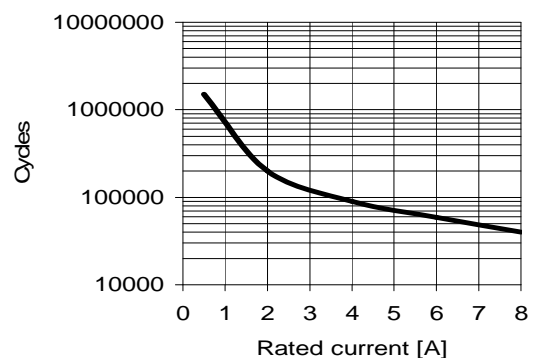
2.7.1.4 AC Resistive loads (Power Factor 1.0)
 Standard IEC60947-4-1 AC-1 endurance
 1NO contact switch cycle 0.1Hz, +70°C,

Characteristically electrical endurance acc.
 IEC60947-5-1 AC-15 Ue=250VAC



Ue 250V / Ie 5A
 6,000 cycles

Characteristically electrical endurance acc.
 IEC60947-5-1 AC-1 Ue=250VAC



Please note:

The electrical endurance graph indicates the typical electrical endurance as "Mean Cycles to Failure" (MCTF) according to Weibull distribution. These statistical data do not guarantee a minimum value.
 It is not permissible to deduce electrical endurance information by extrapolation beyond the range indicated by the curves

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Electrical endurance and utilization category (cont.)

Make contact (NO)

2.7.1.5 DC Inductive loads
 Standard IEC60947-5-1 DC-13 endurance
 1NO contact switch cycle 0.1Hz

2.7.1.6 Utilization category acc. EN60947-5-1
 DC 13

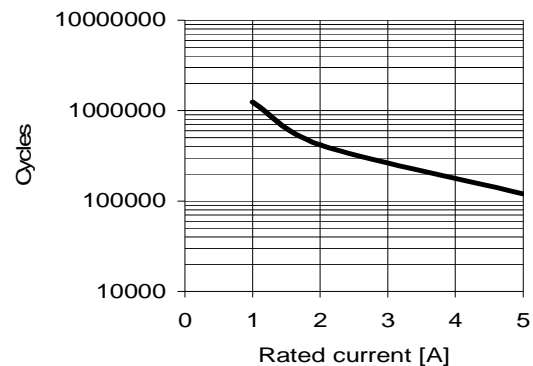
2.7.1.7 UL contact rating R300 Pilot duty

2.7.1.8 DC Resistive loads (L/R 0ms)
 Standard IEC60947-4-1 DC-1 endurance
 1NO contact switch cycle 0.1Hz

Please note:

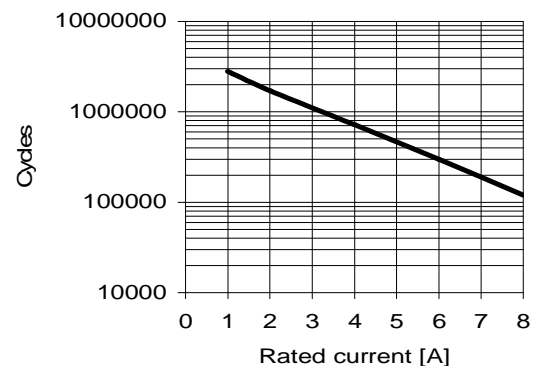
The electrical endurance graph indicates the typical electrical endurance as "Mean Cycles to Failure" (MCTF) according to Weibull distribution. These statistical data do not guarantee a minimum value.
 It is not permissible to deduce electrical endurance information by extrapolation beyond the range indicated by the curves

Characteristically electrical endurance acc.
 IEC60947-5-1 DC-13 U_e=24VDC



U_e 24V / I_e 6A
 6,000 cycles

Characteristically electrical endurance acc.
 IEC60947-5-1 DC-1 U_e=24VDC



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| | | |
|--|--|---------------------|
| Electrical endurance and utilization category (cont.) | | |
| 2.7.2 Break contact (NC) | | |
| 2.7.2.1 AC Inductive loads | | |
| 2.7.2.2 AC Resistive loads (Power Factor 1.0) $I_e=8A, U_e=250V_{AC}$, switch cycle 0.1Hz, +70°C, 1NC contact: 8A | | ≥ 20,000 cycles |
| 2.7.2.3 DC Inductive loads | | |
| 2.7.2.4 DC Resistive loads (L/R 0ms) | | |
| 2.8 | Maximum contact resistance during electrical endurance (voltage drop at closed contacts) | |
| 2.8.1 | For loads ≥ 1 A / 24 V | ≤ 100 mΩ (100 mV) |
| 2.8.2 | For loads ≥ 10 mA / 5 V | ≤ 20 Ω (200 mV) |
| 2.9 B_{10d} values for safety-related control systems of machinery Dangerous Failure mode: Failure to open of a relay contact or insulation failure | AC1 $U_e = 250V; T_{AMB} + 70°C$ | |
| | 2.9.1 $I_e = 8 A; 1 N/O$ | 500,000 cycles |
| | 2.9.2 $I_e = 4A; 1 N/O$ | 860,000 cycles |
| | 2.9.3 $I_e = 2A; 1 N/O$ | 1'300,000 cycles |
| | AC15 $U_e = 250V$ | |
| | 2.9.4 $I_e = 5A; 1 N/O$ | 300,000 cycles |
| | 2.9.5 $I_e = 3A; 1 N/O$ | 850,000 cycles |
| | 2.9.6 $I_e = 1A; 1 N/O$ | 1'100,000 cycles |
| | DC13 $U_e = 24V$ | |
| | 2.9.7 $I_e = 5A; 1 N/O$ | 300,000 cycles |
| 2.9.8 $I_e = 2A; 1 N/O$ | 2'000,000 cycles | |
| 2.9.9 $I_e = 1A; 1 N/O$ | 7'000,000 cycles | |
| Confidence level for all B _{10d} values 80% | | |
| | 1,200 mW coil version | 800 mW coil version |

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3 Coil data

| | | | |
|--------------|--|--------------------------------------|---------------------------|
| 3.1 | Magnet system type | DC, neutral, monostable | |
| 3.1.1 | Nominal coil voltage range | 5...110 V _{DC} | |
| 3.1.2 | Nominal coil power consumption | typ. 1,200 mW | typ. 800 mW |
| 3.2 | Minimum operate voltage | | |
| 3.2.1 | At + 23 °C coil temperature | ≤ 75 % of U _{Nom} | |
| 3.2.2 | At + 70 °C ambient temperature, pre-energizing with 1.1 x U _{NOM} and rated contact current | ≤ 85 % of U _{Nom} | |
| 3.3 | Minimum release voltage | | |
| 3.3.1 | At + 23 °C ambient temperature (initial value) | ≥ 10 % of U _{Nom} | |
| 3.3.2 | At - 40 °C ambient temperature after electrical endurance | ≥ 5 % of U _{Nom} | |
| 3.4 | Max. non-release voltage at + 70 °C ambient temperature and max. continuous current | | |
| 3.4.1 | coil pre-energized with 0.5 x U _{Nom} | ≤ 50 % of U _{Nom} | |
| 3.4.2 | coil pre-energized with 1.1 U _{Nom} | ≤ 56 % of U _{Nom} | |
| 3.5 | Max. permissible operating voltage | | |
| 3.5.1 | Loaded with maximum continuous current | 130 % of U _{Nom} | 150 % of U _{Nom} |
| 3.5.2 | Loaded with current < 0.5 A | 140 % of U _{Nom} | 150 % of U _{Nom} |
| 3.6 | Maximum permissible coil / cover temperature | See item 4.5.3 of this specification | |

3.7.1 Electrical coil values

| Coil code Type code (Block 4) | Nominal voltage V _{DC} | Pull-in voltage V _{DC} | Holding voltage V _{DC} | Release voltage V _{DC} | Coil resistance Ω | Rated coil power mW |
|-------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------|---------------------------|
| 005 | 5 | 3.8 | 2.3 | 0.5 | 21 ± 10% | 1190 |
| 012 | 12 | 9.0 | 5.4 | 0.9 | 120 ± 10% | 1200 |
| 018 | 18 | 13.5 | 8.1 | 1.8 | 270 ± 10% | 1200 |
| 021 | 21 | 15.8 | 9.5 | 2.1 | 368 ± 10% | 1198 |
| 024 | 24 | 18.0 | 10.8 | 2.4 | 480 ± 10% | 1200 |
| 048 | 48 | 36.0 | 21.6 | 4.8 | 1920 ± 10% | 1200 |
| 060 | 60 | 45.0 | 27.0 | 6.0 | 3000 ± 10% | 1200 |
| 085 | 85 | 63.8 | 38.3 | 8.5 | 6021 ± 10% | 1200 |
| 110 | 110 | 82.5 | 49.5 | 11.0 | 10080 ± 10% | 1200 |

All data are given for coil without preenergization and are measured with pulse shaping coil energization, at ambient temperature of +23°C. Energization with a voltage ramp might change the given operating values.

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Electrical coil values continued

| Coil code Ordering code (Block 4) | Nominal voltage VDC | Pull-in voltage VDC | Holding voltage VDC | Release voltage VDC | Coil resistance Ω | Rated coil power mW |
|---|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------------|---------------------------|
| K12 | 12 | 9.0 | 5.4 | 1.2 | 180 \pm 10% | 800 |
| K15 | 15 | 11.3 | 6.8 | 1.5 | 281 \pm 10% | 801 |
| K18 | 18 | 13.5 | 8.1 | 1.8 | 405 \pm 10% | 800 |
| K21 | 21 | 15.8 | 9.5 | 2.1 | 551 \pm 10% | 800 |
| K24 | 24 | 18.0 | 10.8 | 2.4 | 720 \pm 10% | 800 |

All data are given for coil without preenergization and are measured with pulse shaping coil energization, at ambient temperature of +23°C. Energization with a voltage ramp might change the given operating values.

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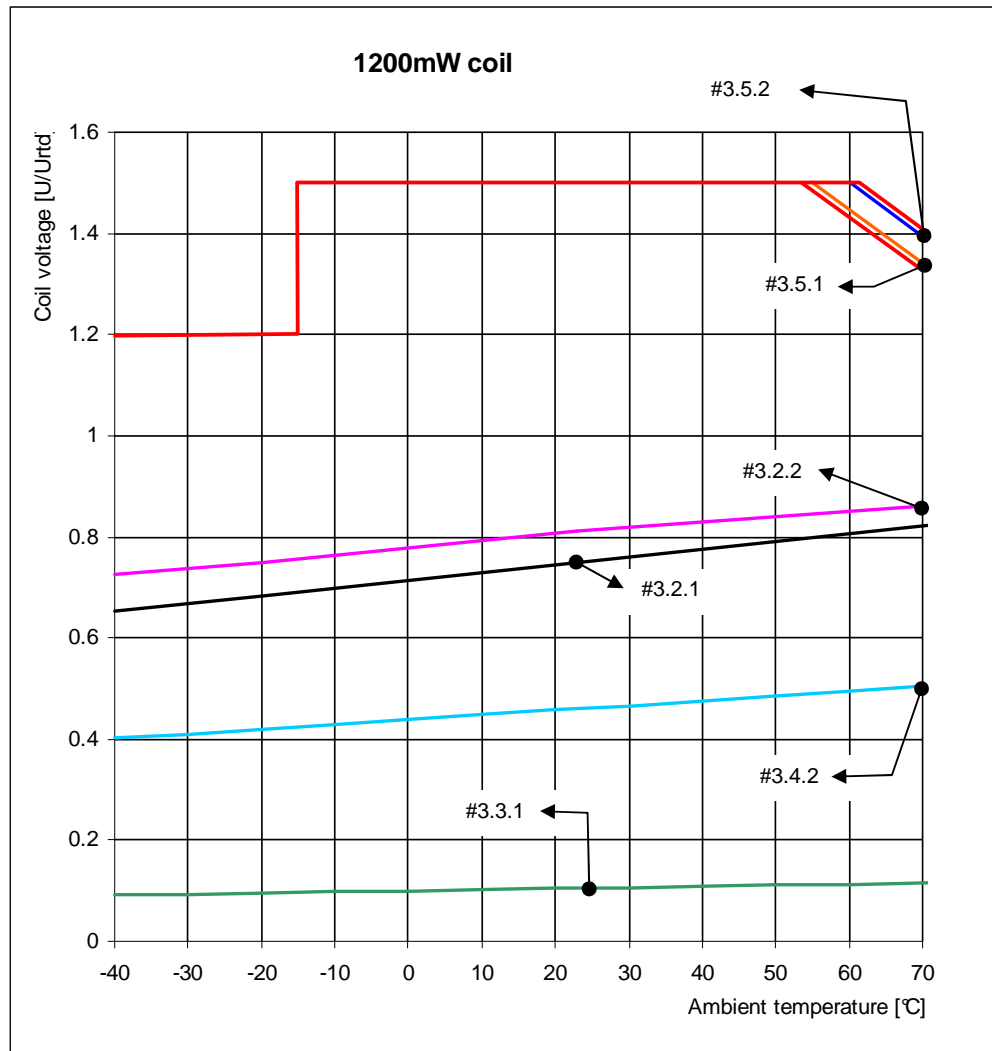
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3.7.2 Coil Operating Range DC (individual mounting >34mm)



- U_{COLD} = Minimum operate voltage without pre-energizing (cold coil)
- U_{WARM} = Minimum Minimum operate voltage with 1.1 x U_n pre-energizing and rated contact current (warm coil)
- $U_{MAX 1}$ = Maximum operating voltage
- $U_{MAX 2}$ = Maximum operating voltage with < 0.5A contact current
- $U_{MAX 3}$ = Maximum operating voltage with maximum permissible contact current (4 x 8A)
- $U_{HOLDING}$ = Holding voltage with 0.5 x U_n pre-energizing coil
- $U_{RELEASE}$ = Release voltage

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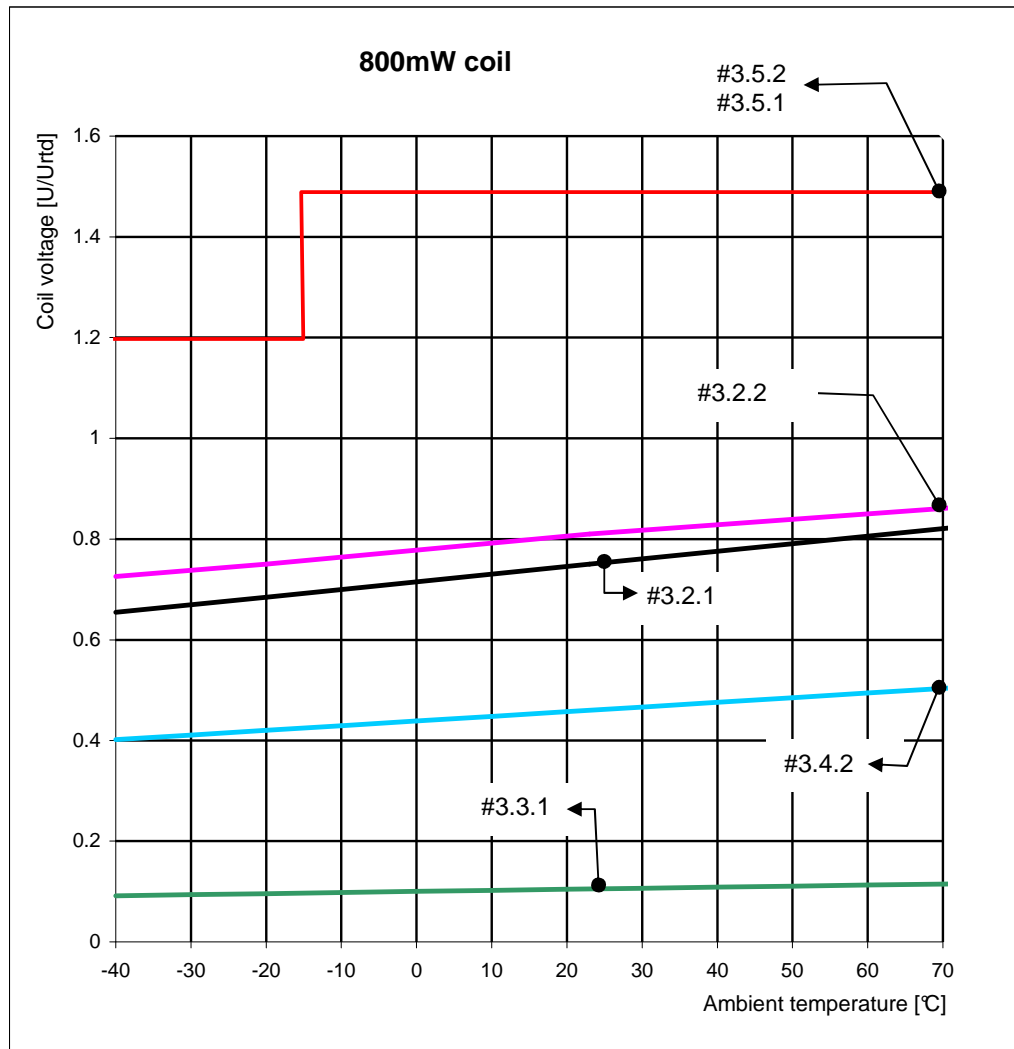
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3.7.3 Coil Operating Range DC (individual mounting >34mm)



- U_{COLD}** = Minimum operate voltage without pre-energizing (cold coil)
- U_{WARM}** = Minimum Minimum operate voltage with 1.1 x Un pre-energizing and rated contact current (warm coil)
- U_{MAX 1}** = Maximum operating voltage
- U_{HOLDING}** = Holding voltage with 0.5 x Un pre-energizing coil
- U_{RELEASE}** = Release voltage

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4 General data

| | | 1200mW coil version | 800mW coil version |
|--------------|---|---|--------------------|
| 4.1 | Operate times at + 23 °C (cold coil); applied coil voltage = U_{NOM} | | |
| 4.1.1 | last close of a NO contact (incl. bounce time) | ≤ 15 ms | ≤ 20 ms |
| 4.1.2 | max. bounce time of the NO contacts | ≤ 4 ms | ≤ 6 ms |
| 4.2 | Operate times under special conditions | | |
| 4.2.1 | Operate time at +70 °C (warm coil); applied coil voltage = 90% U_{NOM} last close of a NO contact (incl. bounce time) | ≤ 50 ms | ≤ 60 ms |
| 4.2.2 | Operate time at - 40 °C (cold coil); applied coil voltage = U_{NOM} last close of a NO contact (incl. bounce time) | ≤ 45 ms | ≤ 50 ms |
| 4.3 | Release times at + 23 °C (cold coil); no parallel diode; applied voltage = U_{Nom} | | |
| 4.3.1 | last close of a NC contact (incl. bounce time) | ≤ 16 ms | ≤ 35 ms |
| 4.3.2 | max. bounce time of the NC contacts | ≤ 13 ms | ≤ 30 ms |
| 4.4 | Maximum switching rate at rated load / minimum load | 360 h ⁻¹ / 18,000 h ⁻¹ | |
| 4.5 | Ambient temperatures | | |
| 4.5.1 | Approved ambient temperature range acc. IEC 61810-1 | -25 °C ... + 70 °C | |
| 4.5.2 | Terms for use below - 25°C amb. temperature | For use at - 40°C ... -25°C do not exceed the max. operating voltage of 120 % U_{nom} No condensing or freezing allowed | |
| 4.5.3 | Terms for use above 70°C ambient temperature (e.g. self heating in small enclosures) | IEC 61810 can only be applied under standardized conditions. Application note SR6_AN_01 must be applied in all other cases. | |
| 4.6 | Protection class according IEC61810-1 | RT III | |
| 4.7 | Mechanical endurance | 10,000,000 operations | |
| 4.8 | Soldering and processing hints Preheating temperature / max. duration Soldering / max. duration Recommended type of soldering flux PCB cleaning | max. 100 °C / 30 s (measured on PCB surface) max. 260 °C / 5 s all types of 'No-clean flux' Relay is not qualified for any type of washing processes ! | |
| 4.9 | Mounting position | any | |
| 4.10 | Weight | 30 g | |

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| | | |
|-------------|---|---|
| 4.11 | Vibration resistance (fault criterion $\leq 10\mu\text{s}$) according IEC 60068-2-6, Fc test NO contact (30 ... 500 Hz), NC contact (30 ... 500 Hz) | $\geq 20 \text{ g}$ $\geq 3 \text{ g}$ |
| 4.12 | Shock resistance (fault criterion $\leq 10\mu\text{s}$) according IEC 60068-2-27, Ea test NO contact (half sinus, 11ms) NC contact (half sinus, 11ms) | $\geq 15 \text{ g}$ $\geq 3 \text{ g}$ |
| 4.13 | Flammability Classifications according UL Base / Actuator / Coil bobbin Cover | 94-V0 94-V2 |

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5 Insulation data (all values are measured at +23°C and 60% relative humidity)

| | | 6 pole versions A / B / C / V | 4 pole versions D / M |
|--------------|---|----------------------------------|--------------------------|
| 5.1 | According to IEC 61810-1 / IEC 60664-1 | | |
| 5.1.1 | Rated voltage system | 230 / 400 V | 230 / 400 V |
| 5.1.2 | Rated insulation voltage | 250 V | 250 V |
| 5.1.3 | Pollution degree | 2 | 2 |
| 5.1.4 | Overvoltage category | III | III |
| | Type of insulation | | |
| 5.1.5 | coil-contact circuit | basic | basic |
| 5.1.6 | open contact circuit | functional | functional |
| 5.1.7 | adjacent contacts | | |
| | longitudinal direction | basic | reinforced |
| | transversal direction | basic | basic |
| 5.2 | Dielectric strength contact – coil circuit | 4,000 V _{RMS} | |
| 5.3 | Dielectric strength adjacent contact circuits | 3,000 V _{RMS} | |
| 5.4 | Dielectric strength open contact circuit | 1,500 V _{RMS} | |
| 5.5 | Clearances / creepage distances according to IEC 61810-1 | | |
| 5.5.1 | Coil – contact | ≥ 5.5 / ≥ 5.5 mm | ≥ 5.5 / ≥ 5.5 mm |
| 5.5.2 | Adjacent contacts longitudinal direction | ≥ 5.5 / ≥ 5.5 mm | ≥ 15 / ≥ 15 mm |
| 5.5.3 | Adjacent contacts transversal direction | ≥ 5.5 / ≥ 5.5 mm | ≥ 5.5 / ≥ 5.5 mm |
| 5.6 | Insulation resistance to EN 61810-1 at 500V _{DC} | | |
| | coil-contact circuit | > 100 MΩ | |
| | adjacent contacts | > 100 MΩ | |
| | open contact circuit | > 100 MΩ | |
| 5.7 | Tracking resistance of relay base according to IEC 60112 | PTI 250 | |
| 5.8 | Rated surge test voltage to EN50178 (1.2/50μs) | | |
| | coil to contact circuit | 6,000 V | |
| | adjacent contacts | 6,000 V | |
| 5.9 | Type of Insulation to EN 50178 | | |
| | coil to contact circuit | reinforced | |
| | adjacent contacts | reinforced | |

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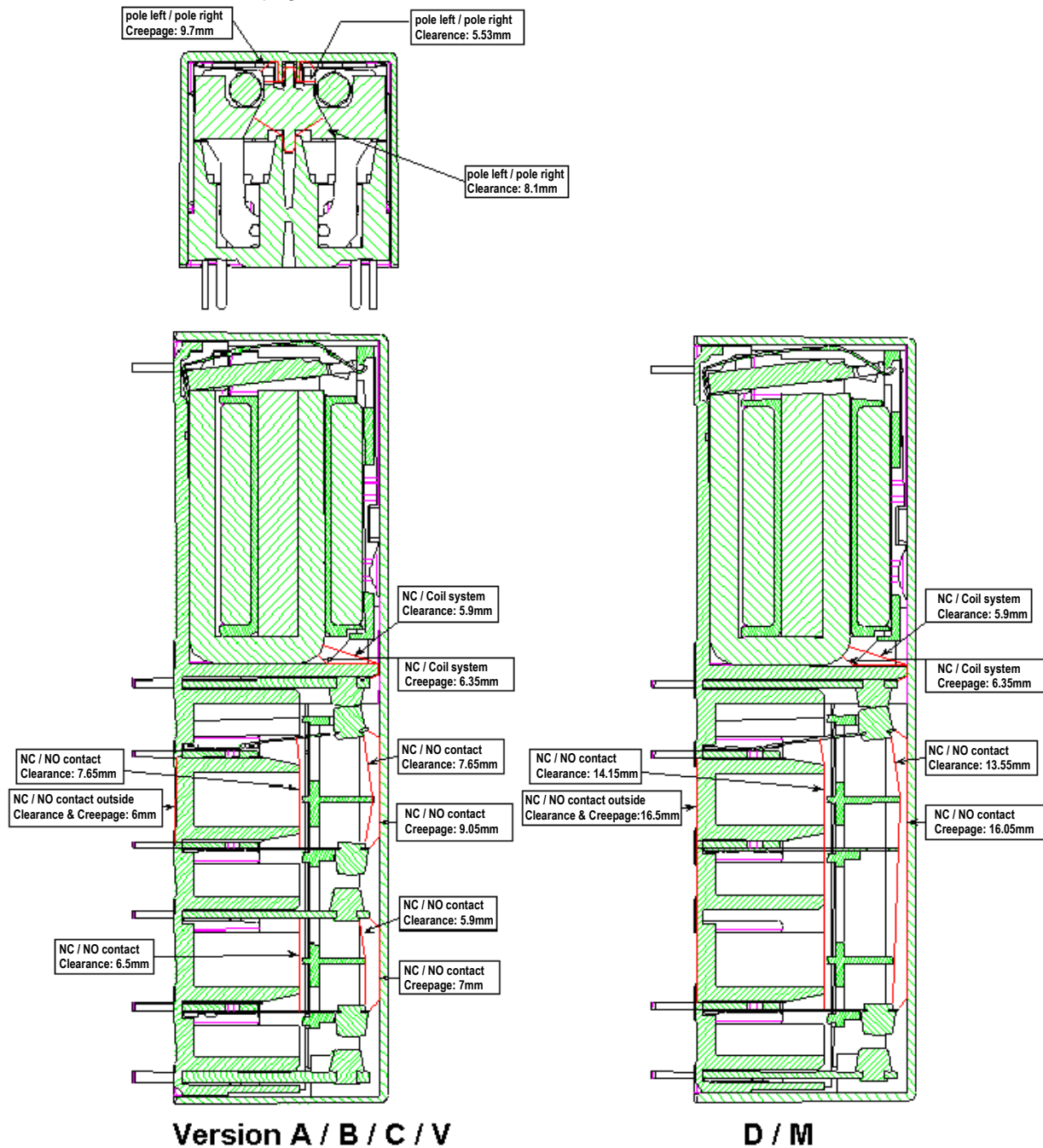
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5.10 Clearance and creepage distances



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6 Type code

S R 6

Type (Block No. 1)

Contact configuration (Block 2)

- A** 3 NO + 3 NC contacts
- B** 4 NO + 2 NC contacts
- C** 5 NO + 1 NC contacts
- D** 2 NO + 2 NC contacts
- M** 3 NO + 1 NC contacts
- V** 4 NO + 2 NC contacts; 5.5 mm pinning

Contact material (Block 3)

- 4** AgSnO₂
- 6** AgSnO₂ with 0.2µm Au

Coil voltage (Block 4)

DC coil code

Alternative type designation (1200mW only)

V 2 3 0 5 0 - A 1 - A 5

Type

Version

- A1** Standard

Coil voltage

(Block 4)
 DC coil code

Contact set

- A** single contact





Contact material

- 5** AgSnO₂

Contact configuration

- 33** 3 NO + 3 NC contacts
- 42** 4 NO + 2 NC contacts
- 51** 5 NO + 1 NC contacts

7 Approvals

| | |
|---|------------------------------------|
|  | TÜVRheinland, No. 968/EL 350.05/09 |
|  | Licence Nr. 128935 |
|  | UL File E214024 |
|  | COC 06017015576 / COC 06017015577 |

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8 Packaging

| | |
|---|---|
| <p>8.1 Carton tube Size L x W x H Relay quantity Weight Label 800 mW coil version 1200 mW coil version</p> | <p>620 x 27.5 x 20 mm 10 pcs 0.325kg</p>   |
| <p>8.2 Shipper carton Size L x W x H Tube / relay quantity Weight Label</p> | <p>665 x 170 x 115 mm 25 / 250 pcs 8.50 kg</p>  |

9 Customs Information

| | |
|--|---|
| <p>Country of origin Customs tariff number Customs part description (Taric-code)</p> | <p>Czech Republic 8536490099 General Purpose Relay 110/230VAC</p> |
|--|---|

10 Quality complaint

In case of any problem please fill form on the next page.

Quality alert

Date: (dd.mm.yyyy) _ _ . _ _ . 2 0 _ _

Your complaint will be entered into our global complaint management system. Via e-mail you will receive the name and e-mail address of the quality key-contact, who will handle this complaint and provide you with the 8D-reports.

Please send this sheet in English language to your local Customer Service / Sales Representative of Tyco Electronics.
A copy can be sent to cis-emea.qualitycomplaints@tycoelectronics.com (for Europe, Africa and India) or to carma@tycoelectronics.com (for North and South America).

1. contact information

| | | |
|---|---------------------------|---------------------------|
| | Tyco Electronics Customer | Final customer (optional) |
| Company name | | |
| Country | | |
| Address line 1 | | |
| Address line 1 | | |
| Address line 1 | | |
| Contact name | | |
| Telephone number | | |
| Tyco Electronics customer no. (if avail.) | | |
| e-mail adress(es) for 8D-report | | |

2. delivery information

| | | | | | |
|---------------------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| Type code | | TE part no. | - - - - - | Customer part no. | |
| Delivery note no. | | Purchase order no | | Delivered quantity | |
| Affected quantities / date code | Qty: 4W _ _ _ _ _ | Qty: 4W _ _ _ _ _ | Qty: 4W _ _ _ _ _ | Qty: 4W _ _ _ _ _ | Qty: 4W _ _ _ _ _ |
| Relay number(s) | | | | | |

3. Problem description (numbers relate to the item of the Forcibly Guided Relay product specification)

| | | | |
|---|--|--|--------------------------------|
| <input type="checkbox"/> Product return shipment | | <input type="checkbox"/> complaint | |
| <input type="checkbox"/> mixed delivery | <input type="checkbox"/> transportation damage | <input type="checkbox"/> relay does not comply to specification | <input type="checkbox"/> other |
| <input type="checkbox"/> mixed shipper carton (8.2) | <input type="checkbox"/> defects on carton or tube | Please tell the spec. item that was hurted by the affected relay(s): _ _ _ _ | Description: |
| <input type="checkbox"/> mixed carton tube (8.1) | <input type="checkbox"/> defects on relays | | |
| <input type="checkbox"/> mixed single relays | | | |
| X Please cross that which does apply. | | | |

4. Product Returns

Prior to returning products to Tyco Electronics, please contact the Customer Service Representative. Only Customer Service will provide authorization. You will receive:

- a RMA-number (Return Material Authorization)
- a return delivery-note including the return-shipment address (if other than below)
- name of the forwarding agent (transport company) and TE account number.

We only accept product return-shipments which are shipped with RMA no. and with the advised forwarding agent. Replacement deliveries must be ordered via Tyco Electronics Customer Service department.

In case of technical complaints we strongly prefer to receive samples of the suspected parts for detailed analysis. Please send the samples (with marking of the affected area) as soon as possible to this address:

Return shipment address: Tyco Electronics Austria GmbH, QA SR, Schrackstr. 1, A – 3830 Waidhofen / Thaya

| | | | |
|---|-----------------------|--------------|----------|
| Samples have been returned: <input type="checkbox"/> no <input type="checkbox"/> yes qty: _ _ _ | Date: _ _ / _ _ / _ _ | Tracking no: | Carrier: |
|---|-----------------------|--------------|----------|

5. Application and failure cause information (in case of different failures please fill separate pages)

| | | | |
|-------------------------------|---|--|----------------------|
| Relay number(s): _ _ _ _ _ | Kind of failure: <input type="checkbox"/> inspection <input type="checkbox"/> qualification test <input type="checkbox"/> field failure | | |
| How was the failure detected? | Relay(s) did not <input type="checkbox"/> switch on <input type="checkbox"/> insulation failed <input type="checkbox"/> switch off | | Other (description): |
| Contacts did not close | <input type="checkbox"/> NO contact no.: _ _ _ | <input type="checkbox"/> gap could be seen between contacts | |
| | <input type="checkbox"/> NC contact no.: _ _ _ | <input type="checkbox"/> high resistance has been measured | |
| Kind of measurement | <input type="checkbox"/> multimeter | <input type="checkbox"/> applied test load: _ _ V _ _ mA => voltage drop on contact: _ _ V | |
| How was the relay used? | Est. numbers of switched cycles: _ _ _ _ _ | | special conditions: |
| Applied coil voltage | _ _ Vdc | _ / _ sec ON/OFF | |
| Applied contact load | Contact no: _ _ (1.3) | _ _ V <input type="checkbox"/> DC <input type="checkbox"/> AC <input type="checkbox"/> inrush current: _ _ A | |
| | <input type="checkbox"/> resistiv <input type="checkbox"/> inductiv <input type="checkbox"/> other: _ _ _ _ _ | | |