# W11 Relay V23101

- **Multi purpose relay**
- **Small size permitting high packing density**
- **1 form C contact (1 CO, 1 changeover contact)**
- **200mW and 450mW coils**
- **1A and 3A contacts**
- **High shock resistance of 30g**
- **Ambient temperature for sensitive version up to 85°C**
- **Immersion cleanable**

Typical applications
Security devices, electric door openers, duplex intercommunication systems, measurement and controls

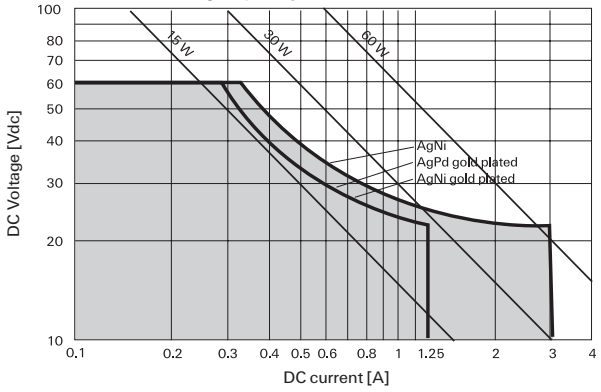
## Approvals

UL 508 File No. E 111441
Technical data of approved types on request

## Contact Data

| | 1.25A | 3A |
|---|---|---|
| Contact arrangement | 1 form C (CO) | |
| Max. switching voltage | 120VDC, 125VAC | |
| Rated current | 1.25A | 3A |
| Limiting continuous current, 85°C | 1.25A | 3A |
| Switching power | 30W, 62.5VA | 72W, 360VA |
| Contact material | AgPd, gold plated<br>AgNi, gold plated | AgNi |
| Min. recommended contact load | 10mA at 20 mV | |
| Minimum switching voltage | 100µV | |
| Initial contact resistance | 100mΩ at 10mA, 20mV | |
| Frequency of operation, without load max. | 20 operations/s | |
| Operate / release time max. | 7ms/5ms | |
| Bounce time max., form A/form B | 2/10ms | |
| Electrical endurance, | | |
| standard version | | |
| at 24VDC / 1.25A | min. $3x10^5$ ops. | |
| at 24VDC / 3A | | min. $2x10^5$ ops. |
| at 120VAC / 1.25A | min. $1.5x10^5$ ops. | |
| at 120VAC / 3A | | min. $4x10^5$ ops. |
| sensitive version | | |
| at 24VDC / 1.25A | min. $2x10^5$ ops. | |
| at 24VDC / 3A | | min. $1x10^5$ ops. |
| at 120VAC / 1.25A | min. $1x10^5$ ops. | |
| at 120VAC / 3A | | min. $3x10^5$ ops |
| Mechanical endurance | typ. $10x10^6$ operations | |

Max. DC load breaking capacity



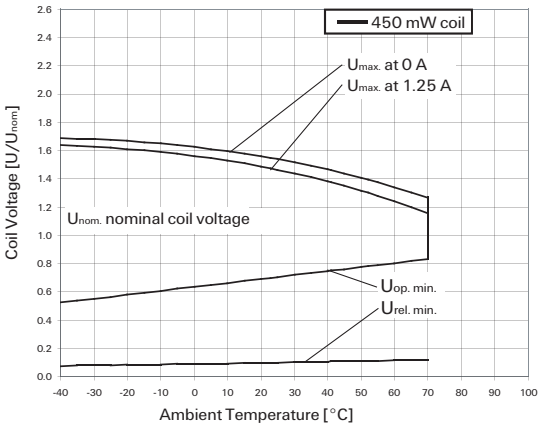

## Coil Data

| | |
|---|---|
| Magnetic system | neutral |
| Coil voltage range | 1.5 to 24VDC |
| Max. coil temperature | 130°C |
| Thermal resistance | < 125K/W |

**Coil versions, monostable**

| Coil code | Rated voltage VDC | Operate voltage $VDC_{min.}$ | Limiting Voltage $VDC_{max.}$ | Release voltage $VDC_{min.}$ | Coil resistance Ω±10% | Rated coil power mW |
|---|---|---|---|---|---|---|
| **Standard coil, 450mW** | | | | | | |
| 001 | 1.5 | 1.3 | 2.6 | 0.15 | 6 | 375 |
| 002 | 3 | 2.1 | 4.7 | 0.30 | 20 | 450 |
| 003 | 5 | 3.5 | 7.9 | 0.50 | 56 | 446 |
| 004 | 6 | 4.2 | 9.5 | 0.60 | 80 | 450 |
| 005 | 9 | 6.3 | 14.2 | 0.90 | 180 | 450 |
| 006 | 12 | 8.4 | 19.0 | 1.20 | 320 | 450 |
| 007 | 24 | 16.8 | 38.0 | 2.40 | 1280 | 450 |
| **Sensitive coil, 200mW** | | | | | | |
| 101 | 1.5 | 1.1 | 3.6 | 0.15 | 12 | 188 |
| 102 | 3 | 2.3 | 7.1 | 0.30 | 45 | 200 |
| 103 | 5 | 3.8 | 11.6 | 0.50 | 120 | 208 |
| 104 | 6 | 4.5 | 14.2 | 0.60 | 180 | 200 |
| 105 | 9 | 6.8 | 21.2 | 0.90 | 400 | 203 |
| 106 | 12 | 9.0 | 28.0 | 1.20 | 700 | 206 |
| 107 | 24 | 18.0 | 56.0 | 2.40 | 2800 | 206 |
| 108 | 18 | 13.5 | 33.0 | 1.80 | 1620 | 200 |

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






06-2012, Rev. 0612
www.te.com
© 2011 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

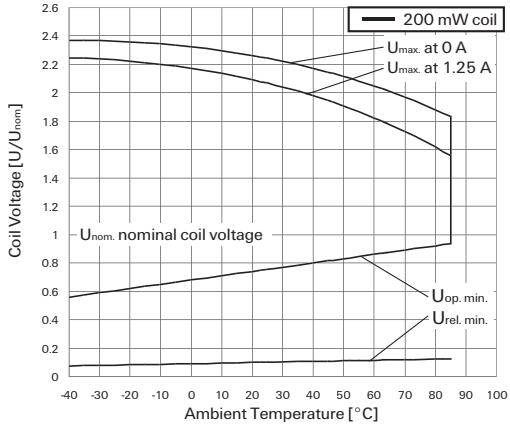
Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

# W11 Relay V23101 (Continued)

## Coil Data (continued)




Coil operative range graphs

| | |
|---|---|
| $U_{nom}$ | Nominal coil voltage |
| $U_{max}$ | Upper limit of the operative range of the coil voltage (limiting voltage) when coils are continously energized |
| $U_{op.\ min.}$ | Lower limit of the operative range of the coil voltage (reliable operate voltage) |
| $U_{rel.\ min.}$ | Lower limit of the operative range of the coil voltage (reliable release voltage) |

## Insulation Data

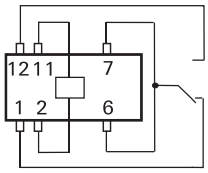
| | |
|---|---|
| Initial dielectric strength | |
| between open contacts | 750Vrms |
| between contact and coil | 1000Vrms |
| Initial insulation resistance at 500VDC | > 109Ω |
| Capacitance | |
| between open contacts | max. 2pF |
| between contact and coil | max. 10pF |

## Other Data

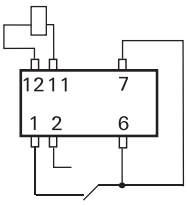
| | |
|---|---|
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter | |
| Ambient temperature | -40 to +85°C |
| Category of environmental protection | |
| IEC 61810 | RT III - immersion cleanable |
| Degree of protection, IEC 60529 | IP 67 |
| Vibration resistance (functional) | 10g, 10 to 200Hz |
| Shock resistance (functional) | |
| IEC 60068-2-27 (half sine) | 30g |
| Shock resistance (destructive) | 100g |
| Terminal type | PCB-THT |
| Weight | max. 4g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | 265°C/10s |
| Ultrasonic cleaning | not recommended |
| Packaging/unit | tube/25 pcs. box/625 pcs. |

**Terminal assignment**
TOP view on component side of PCB

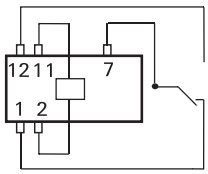
6 pin version with symmetrical coil assignment
V23101-D0xxx-Axxx



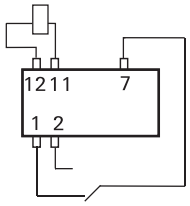

6 pin version with asymmetrical coil assignment
V23101-D0xxx-Bxxx




5 pin version with symmetrical coil assignment
V23101-D1xxx-Axxx

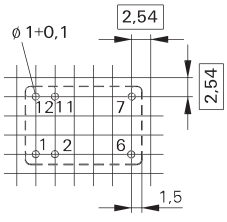



5 pin version with asymmetrical coil assignment
V23101-D1xxx-Bxxx

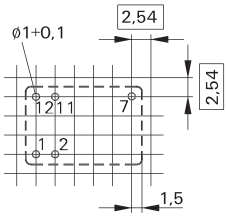



**PCB layout**
TOP view on component side of PCB

6 pin version




5 pin version






06-2012, Rev. 0612
www.te.com
© 2011 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

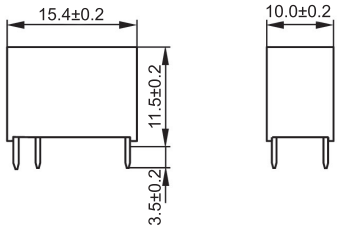
Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

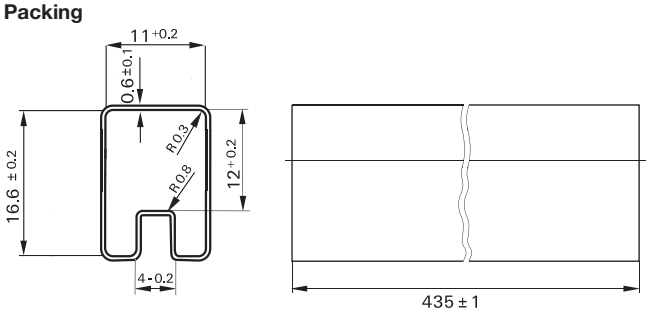
Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

## W11 Relay V23101 (Continued)

**Dimensions**




**Packing**




**Product code structure**

| Typical product code | V23101 | D0 | 104 | B | 401 |
|---|---|---|---|---|---|

**Type**
- **V23101** W11 Series Signal Relay

**Pinning**
- **D0** 6 pin vetrsion (standard)
- **D1** 5-pin version (without pin no. 6)

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

**Coil terminal assignment**
- **A** Symmetrical coil assignment
- **B** Asymmetrical coil assignment

**Contacts**
- **201** 1 form C (CO), AgPd, gold plated
- **301** 1 form C (CO), AgNi
- **401** 1 form C (CO), AgNi, gold plated



06-2012, Rev. 0612
www.te.com
© 2011 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

## W11 Relay V23101 (Continued)

| Product Code | Pinning | Coil | Coil voltage | Coil assignment | Cont.material | Part number |
|---|---|---|---|---|---|---|
| V23101-D0001-A201 | 6 pins | Standard | 1.5VDC | Symmetrical | AgPd, Au plated | 1393779-1 |
| V23101-D0002-A201 | version | coil | 3VDC | | | 1393779-3 |
| V23101-D0003-A201 | | | 5VDC | | | 1393779-5 |
| V23101-D0004-A201 | | | 6VDC | | | 1393779-8 |
| V23101-D0005-A201 | | | 9VDC | | | 1-1393779-1 |
| V23101-D0006-A201 | | | 12VDC | | | 1-1393779-3 |
| V23101-D0007-A201 | | | 24VDC | | | 1-1393779-8 |
| V23101-D0001-B201 | | | 1.5VDC | Asymmetrical | | 1393779-2 |
| V23101-D0002-B201 | | | 3VDC | | | 1393779-4 |
| V23101-D0003-B201 | | | 5VDC | | | 1393779-6 |
| V23101-D0004-B201 | | | 6VDC | | | 1-1393779-0 |
| V23101-D0005-B201 | | | 9VDC | | | 1-1393779-2 |
| V23101-D0006-B201 | | | 12VDC | | | 1-1393779-6 |
| V23101-D0007-B201 | | | 24VDC | | | 2-1393779-2 |
| V23101-D0006-A301 | | | 12VDC | Symmetrical | AgNi | 4-1419172-4 |
| V23101-D0003-B301 | | | 5VDC | Asymmetrical | | 1393779-7 |
| V23101-D0006-B301 | | | 12VDC | | | 1-1393779-7 |
| V23101-D0007-B301 | | | 24VDC | | | 2-1393779-1 |
| V23101-D0003-A401 | | | 5VDC | Symmetrical | AgNi, Au plated | 1422028-2 |
| V23101-D0006-A401 | | | 12VDC | | | 1422028-3 |
| V23101-D0007-A401 | | | 24VDC | | | 1422028-5 |
| V23101-D0006-B401 | | | 12VDC | Asymmetrical | | 1422028-4 |
| V23101-D0007-B401 | | | 24VDC | | | 1422028-6 |
| V23101-D1006-A201 | 5 pins | | 12VDC | Symmetrical | AgPd, Au plated | 4-1393779-1 |
| V23101-D1003-B201 | | | 5VDC | Asymmetrical | | 4-1393779-0 |
| V23101-D1006-B201 | | | 12VDC | | | 4-1393779-2 |
| V23101-D1007-B201 | | | 24VDC | | | 1413012-1 |
| V23101-D1006-A401 | | | 12VDC | Symmetrical | AgNi, Au plated | 1-1422028-2 |
| V23101-D1006-B401 | | | | Asymmetrical | | 1-1422028-3 |
| V23101-D0101-A201 | 6 pins | Sensitive | 1.5VDC | Symmetrical | AgPd, Au plated | 2-1393779-2 |
| V23101-D0102-A201 | version | coil | 3VDC | | | 2-1393779-4 |
| V23101-D0103-A201 | | | 5VDC | | | 2-1393779-6 |
| V23101-D0104-A201 | | | 6VDC | | | 2-1393779-8 |
| V23101-D0105-A201 | | | 9VDC | | | 3-1393779-0 |
| V23101-D0106-A201 | | | 12VDC | | | 3-1393779-2 |
| V23101-D0107-A201 | | | 24VDC | | | 3-1393779-5 |
| V23101-D0108-A201 | | | 18VDC | | | 3-1393779-9 |
| V23101-D0101-B201 | | | 1.5VDC | Asymmetrical | | 2-1393779-3 |
| V23101-D0102-B201 | | | 3VDC | | | 2-1393779-5 |
| V23101-D0103-B201 | | | 5VDC | | | 2-1393779-7 |
| V23101-D0104-B201 | | | 6VDC | | | 2-1393779-9 |
| V23101-D0105-B201 | | | 9VDC | | | 3-1393779-1 |
| V23101-D0106-B201 | | | 12VDC | | | 3-1393779-3 |
| V23101-D0107-B201 | | | 24VDC | | | 3-1393779-8 |
| V23101-D0106-A301 | | | 12VDC | Symmetrical | AgNi | 1422037-2 |
| V23101-D0107-A301 | | | 24VDC | | | 3-1393779-7 |
| V23101-D0106-B301 | | | 12VDC | Asymmetrical | | 3-1393779-4 |
| V23101-D0103-A401 | | | 5VDC | Symmetrical | AgNi, Au plated | 1422028-7 |
| V23101-D0106-A401 | | | 12VDC | | | 1422028-8 |
| V23101-D0107-A401 | | | 24VDC | | | 1422028-9 |
| V23101-D0108-A401 | | | 18VDC | | | 1-1422028-1 |
| V23101-D0107-B401 | | | 24VDC | Asymmetrical | | 1-1422028-0 |
| V23101-D1106-A201 | 5 pins | | 12VDC | Symmetrical | AgPd, Au plated | 4-1393779-3 |
| V23101-D1107-A201 | | | 24VDC | | | 4-1393779-6 |
| V23101-D1106-B201 | | | 12VDC | Asymmetrical | | 4-1393779-4 |
| V23101-D1107-B201 | | | 24VDC | | | 4-1393779-7 |
| V23101-D1106-B301 | | | 12VDC | | AgNi | 4-1393779-5 |
| V23101-D1106-A401 | | | | Symmetrical | AgNi, Au plated | 1-1422028-4 |
| V23101-D1106-B401 | | | | Asymmetrical | | 1-1422028-5 |



06-2012, Rev. 0612
www.te.com
© 2011 Tyco Electronics Corporation,
a TE Connectivity Ltd. company

Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

LifeElectronics
Живое партнерство

**ООО «ЛайфЭлектроникс»** **“LifeElectronics” LLC**

*ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703*

*Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.*

*С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров*

*Мы предлагаем:*

- *Конкурентоспособные цены и скидки постоянным клиентам.*
- *Специальные условия для постоянных клиентов.*
- *Подбор аналогов.*
- *Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.*

- *Приемлемые сроки поставки, возможна ускоренная поставка.*
- *Доставку товара в любую точку России и стран СНГ.*
- *Комплексную поставку.*
- *Работу по проектам и поставку образцов.*
- *Формирование склада под заказчика.*

- *Сертификаты соответствия на поставляемую продукцию (по желанию клиента).*
- *Тестирование поставляемой продукции.*
- *Поставку компонентов, требующих военную и космическую приемку.*
- *Входной контроль качества.*
- *Наличие сертификата ISO.*

*В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.*

*Конструкторский отдел помогает осуществить:*

- *Регистрацию проекта у производителя компонентов.*
- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

*Тел: +7 (812) 336 43 04 (многоканальный)*
*Email: org@lifeelectronics.ru*

***www.lifeelectronics.ru***