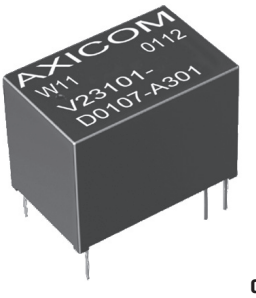
W11 Relay V23101

- **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

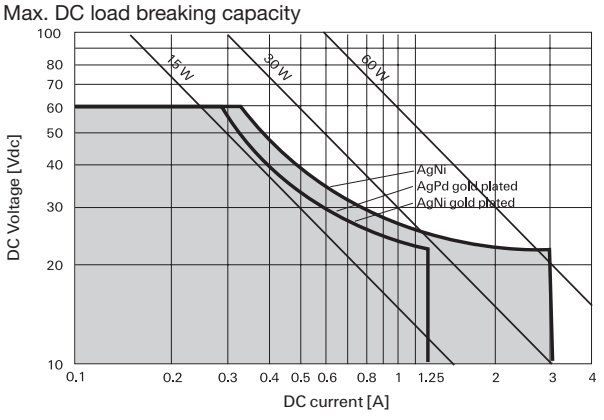
UL 508 File No. E 111441

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 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



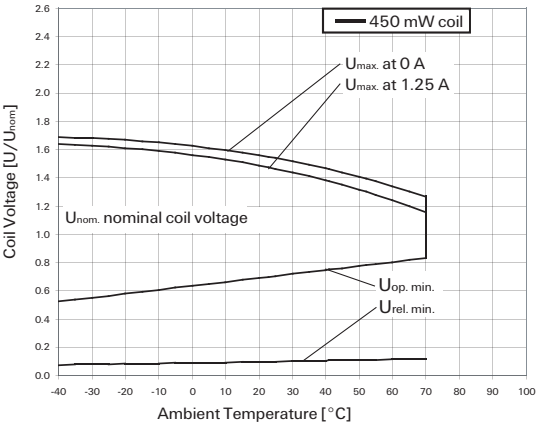
Coil Data

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.



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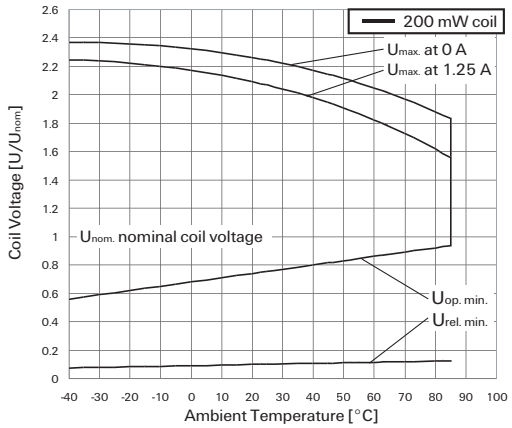
W11 Relay V23101 (Continued)

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

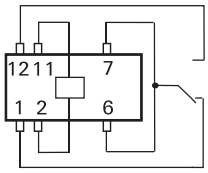
Initial dielectric strength	
between open contacts	750Vrms
between contact and coil	1000Vrms
Initial insulation resistance at 500VDC	> 109Ω
Capacitance	
between open contacts	max. 2pF
between contact and coil	max. 10pF

Other Data

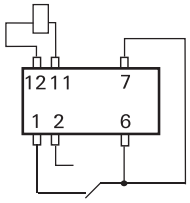
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Ambient temperature	-40 to +85°C
Category of environmental protection	
IEC 61810	RT III - wash tight
Vibration resistance (functional)	10g, 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

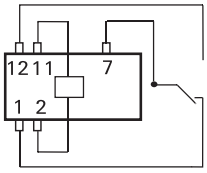
6 pin version with symmetrical coil assignment
V23101-D0xxx-Axxx



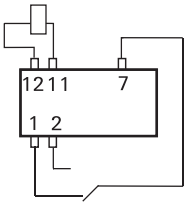
6 pin version with asymmetrical coil assignment
V23101-D0xxx-Bxxx



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

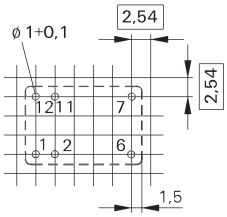


5 pin version with asymmetrical coil assignment
V23101-D1xxx-Bxxx

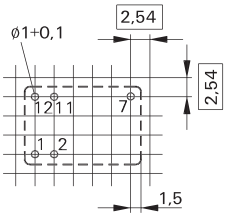


PCB layout
TOP view on component side of PCB

6 pin version



5 pin version



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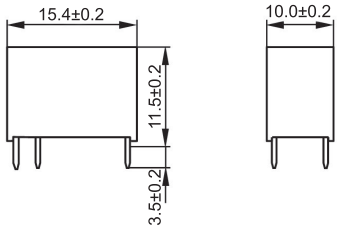
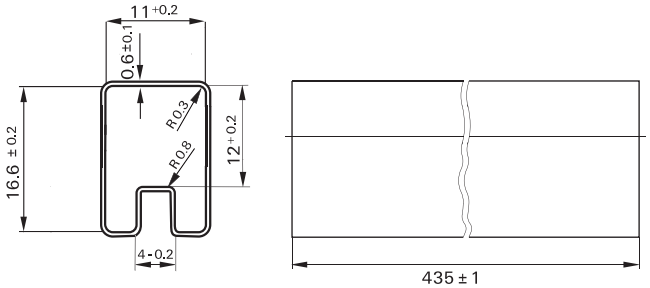
W11 Relay V23101 (Continued)

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

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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			2-1393779-0
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

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