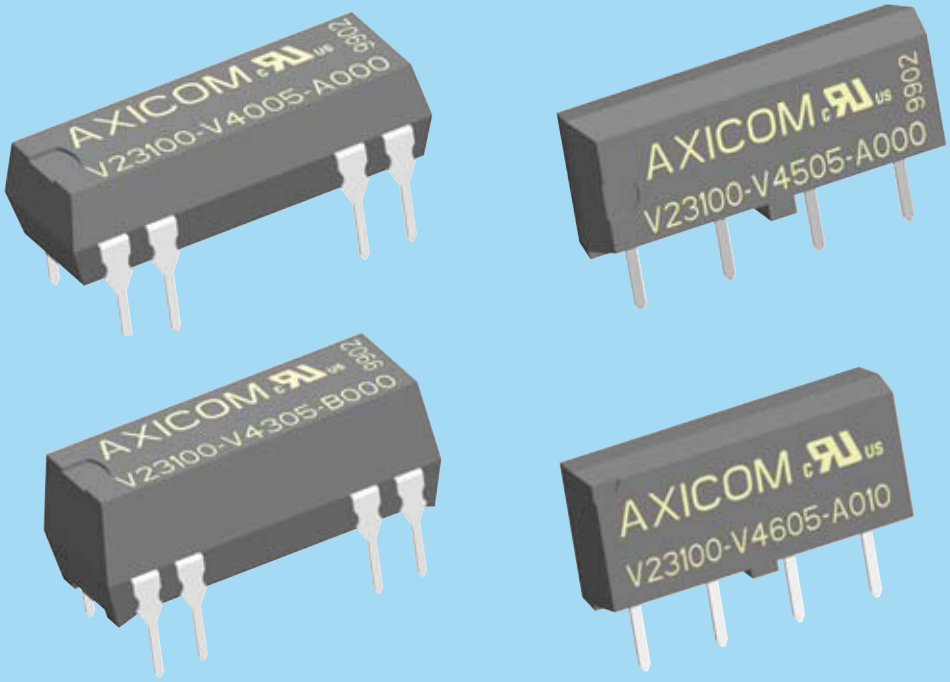


AXICOM

Telecom-, Signal and RF Relays

Reed V23100-V4 Relay

108-98011 • Nov. 07 Rev. C • ECOC: JM10

Tyco Electronics

Our commitment. Your advantage.

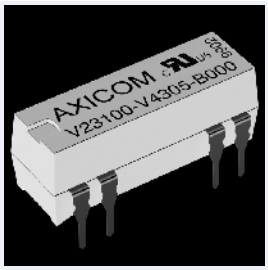
Reed V23100-V4 Relay

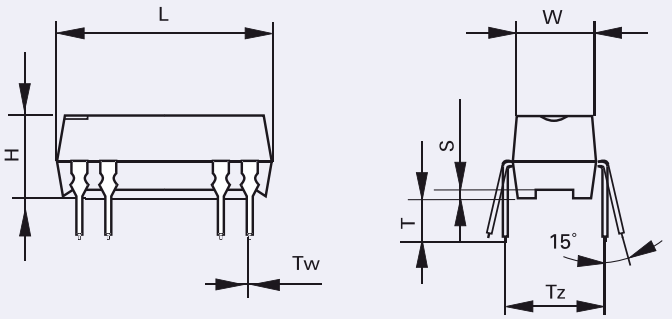
Dimensions

Dimensions in mm

DIP version (high)

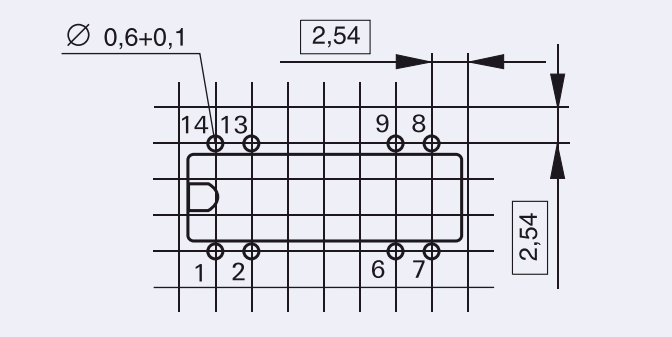
	DIP-high version	
	mm	inch
L	19.30 – 0.2	0.760 – 0.008
W	7.00 – 0.2	0.276 – 0.008
H	7.50 – 0.2	0.295 – 0.008
S	0.50 ± 0.1	0.200 ± 0.004
T	3.20 ± 0.1	0.126 ± 0.004
Tw	0.50 ± 0.1	0.020 ± 0.004
Tz	0.25 ± 0.1	0.010 ± 0.004





Mounting hole layout

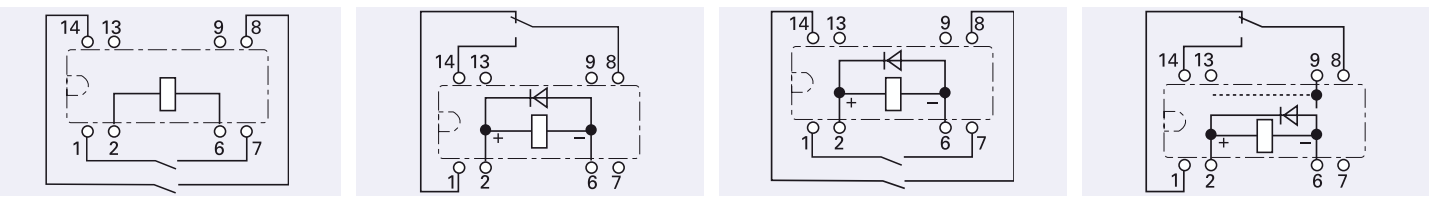
Top view



Terminal assignment

Top view

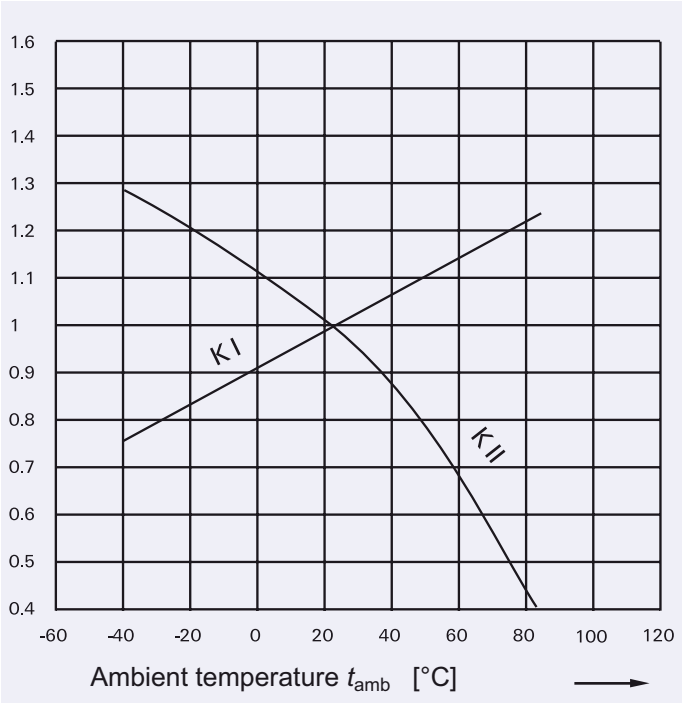
2 form a standard	1 form c with diode	2 form a with diode	1 form c with electrostatic shield and diode
B000	C010	B010	C011



Reed V23100-V4 Relay

Coil Data (values at 23 °C) — Ordering Information

Nominal voltage U_{nom} Vdc	Operate/set voltage range: Minimum voltage U_{min} Vdc	Operate/set voltage range: Maximum voltage U_{max} Vdc	Release/ reset voltage Minimum Vdc	Coil power mW	Coil Resistance Ω / ± 10 %	Relay code	Tyco part number
DIP version high: 2 form a contact, standard							
5	3.5	14	0.75	125	200	V23100-V4305-B000	1-1393763-8
12	8.4	25	1.80	288	500	V23100-V4312-B000	2-1393763-6
15	10.5	47	2.25	112	2000	V23100-V4315-B000	3-1393763-2
24	16.8	47	3.60	288	2000	V23100-V4324-B000	3-1393763-8
DIP version high: 2 form a contact, with diode							
5	3.5	14	0.75	125	200	V23100-V4305-B010	1-1393763-9
12	8.4	25	1.80	288	500	V23100-V4312-B010	2-1393763-7
15	10.5	47	2.25	112	2000	V23100-V4315-B010	3-1393763-3
24	16.8	47	3.60	288	2000	V23100-V4324-B010	3-1393763-9
DIP version high: 1 form c contact, with diode							
5	3.5	14.5	0.75	125	200	V23100-V4305-C010	2-1393763-2
12	8.4	23.5	1.80	288	500	V23100-V4312-C010	3-1393763-0
15	10.5	14.5	2.25	112	2000	V23100-V4315-C010	3-1393763-6
24	16.8	49.0	3.60	288	2000	V23100-V4324-C010	4-1393763-2
DIP version high: 1 form c contact, with diode and electrostatic shield							
5	3.5	14.5	0.75	125	200	V23100-V4305-C011	2-1393763-3
12	8.4	23.5	1.80	288	500	V23100-V4312-C011	3-1393763-1
15	10.5	14.5	2.25	112	2000	V23100-V4315-C011	3-1393763-7
24	16.8	49.0	3.60	288	2000	V23100-V4324-C011	4-1393763-3



U_I = Minimum voltage at 23 °C after preenergizing with nominal voltage without contact current

U_{II} = Maximum continous voltage at 23 °C

The operating voltage limits U_I and U_{II} depend on the temperature according to the formula:

$U_{I\,tamb} = K_I \cdot U_{I\,23\,°C}$

and

$U_{II\,tamb} = K_{II} \cdot U_{II\,23\,°C}$

t_{amb} = Ambient temperature

$U_{I\,tamb}$ = Minimum voltage at ambient temperature, tamb

$U_{II\,tamb}$ = Maximum voltage at ambient temperature, tamb

k_I , k_{II} = Factors (dependent on temperature), see diagram

Reed V23100-V4 Relay

Contact Data

Type of relay	DIP version			SIL version	Mini SIL Version
Type of contact/s	1 form a	2 form a	1 form c	1 form a	1 form a
Contact material	Ruthenium				
Maximum continuous current	1 A		1.2 A	1 A	1 A
Maximum switching current	0.5 A		0.25 A	0.5 A	0.5 A
Maximum switching voltage at nominal voltage: 5 Vdc 12-24 Vdc	 200 Vdc / Vac peak 200 Vdc / Vac peak		 175 Vdc 175 Vdc peak	 200 Vdc / Vac 200 Vdc / Vac	 200 Vdc / Vac peak 200 Vdc / Vac peak
Maximum switching capacity DC voltage AC voltage	 10 W 10 VA		 3 W 3 VA	 10 W 10 VA	 10 W 10 VA
Initial contact resistance / measuring condition:	<150 mΩ				
Electrical endurance at 12 V / 10 mA at 24 V / 400 mA	5×10^7 5×10^6				

Insulation

Insulation resistance at 500 Vdc	contact coil > $10^9\Omega$			
Dielectric test voltage (1 min) contact / coil contact / contact	 1500 Vdc 250 Vdc	 1500 Vdc 200 Vdc	 1500 Vdc 250 Vdc	 1500 Vdc 225 Vdc

High Frequency Data

Capacitance	
between coil and contacts	max. 2 pF
between adjacent contact sets	max. 1 pF
between open contacts	max. 1 pF

General Data

Type of relay	DIP version			SIL version	Mini SIL Version
Type of contact/s	1 form a	2 form a	1 form c	1 form a	1 form a
Maximum operate time (including bounce)	0.75 ms		1.1 ms	0.75 ms	0.75 ms
Maximum release time	0.15 ms		1.6 ms	0.15 ms	0.15 ms
Operating temperature range	-40 °C ... +85 °C				
Storage temperature	-40 °C ... + 95 °C				
Thermal resistance	Approx. 75 K / W				
Maximum permissible coil temperature	105 °C				
Vibration resistance (function)	30 G 10 to 2000 Hz		30 G 50 to 2000 Hz	30 G 10 to 2000 Hz	30 G 10 to 2000 Hz
Shock resistance, half sinus, 11 ms	150 G		50 G	150 G	50 G
Degree of protection	immersion cleanable, IP 67				
Mounting position	any				
Resistance to soldering heat	265 °C / 10 s				