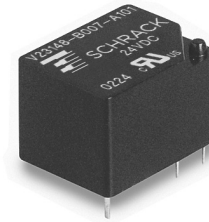


Power PCB Relay U/UB (V23148)

- 1 pole 7A, mono or bistable
- 1 form C (CO) or 1 form A (NO) or 1 form B (NC contact)
- Bistable and DC version
- Wash tight version
- Version for 10A on request



Typical applications
Heating control, installation, battery powered equipment



Approvals

UL E214024
Technical data of approved types on request

Contact Data	Standard	Bistable	Sensitive
Contact arrangement		1 form C (CO) or 1 form A (NO) or 1 form B (NC)	
Rated voltage		250VAC	
Max. switching voltage		400VAC	
Rated current	7A	7A	5A
Limiting making current, max 4 s, duty factor 10%	12A	12A	12A
Breaking capacity max.	1750VA	1750VA	1250VA
Contact material	AgNI 90/10	AgNI 90/10	AgNI 90/10
Frequency of operation, with/without load		600/18000h ⁻¹	
Operate/release time typ.	5/3ms	-	7/3 ms
Set/reset time typ.	-	5/3 ms	-
Bounce time typ., form A/form B	2/10 ms	2/10 ms	2/10 ms
Mechanical endurance		>20x10 ⁶ operations	

Contact ratings

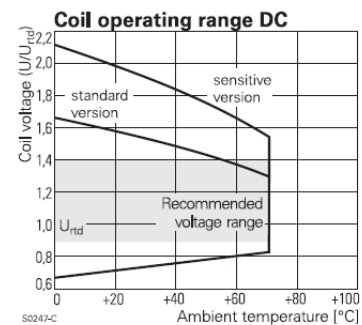
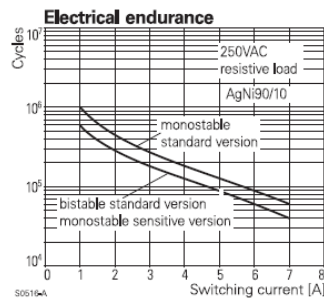
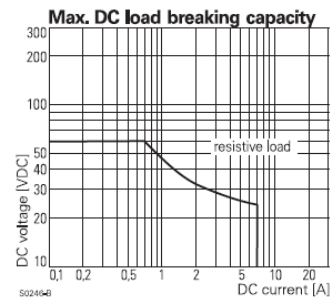
Type	Contact	Load	Cycles
UL508			
U/UB C/A/B	(CO/NO/NC) 7A, 250VAC, general purpose, 40°C		6.000

Coil Data	Standard	Bistable	Sensitive
Coil voltage range	5 to 48 VDC	3 to 48 VDC	5 to 48 VDC
Operative range IEC 61810	2	2	2
Reset voltage min., % of rated coil voltage	-	25%	-
Reset voltage max., % of rated coil voltage	-	45%	-
Rated operate power	-	900 to 1300mW/20ms	-

Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
Standard coil					
002	5	3.5	0.5	56	446
003	6	4.2	0.6	80	450
005	12	8.4	1.2	320	450
007	24	16.8	2.4	1280	450
008	48	33.6	4.8	3800	606
Sensitive coil					
102	5	3.7	0.5	80	313
103	6	4.4	0.6	110	327
105	12	8.8	1.2	440	327
107	24	17.5	2.4	1780	324
108	48	35.0	4.8	4000	576

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



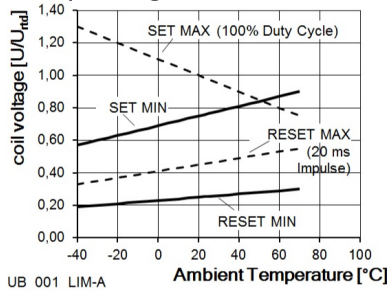
Power PCB Relay U/UB (V23148) (Continued)

Coil versions, bistable 1 coil

Coil code	Rated voltage VDC	Set voltage VDC	Reset voltage VDC	Coil resistance $\Omega \pm 10\%$	Rated coil power mW
001	3	2.3	0.75	8	1125
002	5	3.9	1.25	22	1136
003	6	4.7	1.5	33	1091
005	12	9.4	3.0	119	1210
007	24	18.7	6.0	475	1213
008	48	37.4	12.0	1750	1317

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

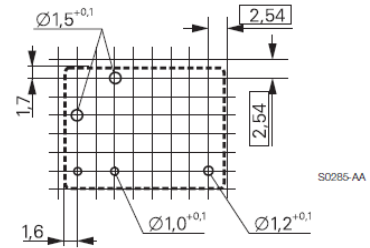
Coil operating bistable



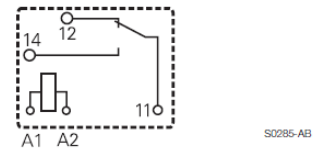
PCB layout / terminal assignment

Bottom view on solder pins

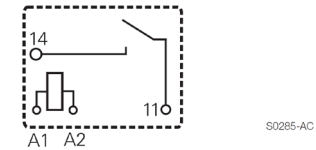
Monostable and bistable 1 coil



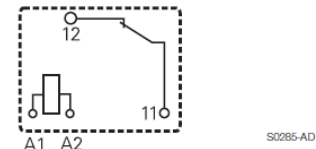
Form C contact (CO)



Form A contact (NO)



Form B contact (NC)



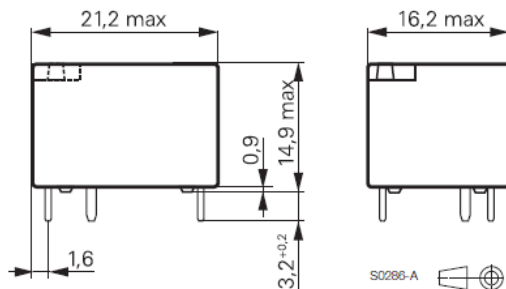
Insulation Data	2kV _{rms}	4kV _{rms}
	Version	Version
	V23148-*0***	V23148-*1***
Initial dielectric strength		
between open contacts	1000V _{rms}	1000V _{rms}
between contact and coil	2000V _{rms}	4000V _{rms}
Clearance/creepage		
between contact and coil	≥2.5/2.5mm	≥3.5/3.5mm
Material group of insulation parts	≥IIIa	≥IIIa

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

Ambient temperature	-25 to +70°C
Category of environmental protection	
IEC 61810	RTIII - wash tight
Terminal type	PCB-THT
Weight	8.7g
Vibration resistance (functional), form A/form B	10/10g
Shock resistance (functional), form A/form B	10/10g
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/5s
Packaging/unit	25 pcs.

Dimensions



Power PCB Relay U/UB (V23148) (Continued)

Product code structure	Typical product code	V23148	-A	0	0	07	-A	101
Type		V23148 Power PCB Relay U/UB						
Version		A Monostable (Miniature power relay U) B Bistable (Miniature power relay UB, remanence version)						
Dielectric strength coil-contact		0 2kV _{rms} 1 4kV _{rms}						
Version		0 Monostable 0 Bistable 1 Standard 0 Standard 1 Sensitive						
Coil		Coil code: please refer to coil versions table						
Contact configuration		A 1 form C contact (1 CO) C 1 form B contact (1NC) B 1 form A contact (1 NO)						
Contact configuration		101 AGNI10						

Other types on request

Product code	Version	Dielectric	Version	Arrangement	Part Number
V23148-A0005-C101	Monostable relay ,U	2000 Vrms contact-coil	Standard	1 form B (NC)	1-1393203-0
V23148-A0007-A101				1 form C (CO)	1-1393203-1
V23148-A0007-B101				1 form A (NO)	1-1393203-2
V23148-A0007-C101				1 form B (NC)	1-1393203-3
V23148-A0008-A101				1 form C (CO)	1-1393203-4
V23148-A0002-A101				1 form C (CO)	1393203-1
V23148-A0002-B101				1 form A (NO)	1393203-2
V23148-A0002-C101				1 form B (NC)	1393203-3
V23148-A0003-A101				1 form C (CO)	1393203-4
V23148-A0003-B101				1 form A (NO)	1393203-5
V23148-A0004-A101				1 form C (CO)	1393203-7
V23148-A0005-A101				1 form C (CO)	1393203-8
V23148-A0005-B101				1 form A (NO)	1393203-9
V23148-A0102-A101			Sensitive	1 form C (CO)	1-1393203-5
V23148-A0102-B101				1 form A (NO)	1-1393203-6
V23148-A0102-C101				1 form B (NC)	1-1393203-7
V23148-A0103-A101				1 form C (CO)	1-1393203-8
V23148-A0103-B101				1 form A (NO)	1-1393203-9
V23148-A0103-C101				1 form B (NC)	2-1393203-0
V23148-A0105-A101				1 form C (CO)	2-1393203-1
V23148-A0105-B101				1 form A (NO)	2-1393203-2
V23148-A0105-C101				1 form B (NC)	2-1393203-3
V23148-A0107-A101				1 form C (CO)	2-1393203-4
V23148-A0107-B101				1 form A (NO)	2-1393203-5
V23148-A0107-C101				1 form B (NC)	2-1393203-6
V23148-A1005-A101		4000 Vrms contact-coil	Standard	1 form C (CO)	2-1393203-7
V23148-A1007-A101				1 form C (CO)	2-1393203-8
V23148-A1105-A101				1 form C (CO)	2-1393203-9
V23148-A1105-B101				1 form A (NO)	3-1393203-0
V23148-A1107-A101				1 form C (CO)	3-1393203-1
V23148-B0007-A101	Bistable relay ,UB	2000 Vrms contact-coil		1 form C (CO)	1-1393204-0
V23148-B0007-B101				1 form A (NO)	1-1393204-1
V23148-B0007-C101				1 form B (NC)	1-1393204-2
V23148-B0008-A101				1 form C (CO)	1-1393204-3
V23148-B1001-A101				1 form C (CO)	1-1393204-5
V23148-B0001-A101				1 form C (CO)	1393204-1
V23148-B0002-A101				1 form C (CO)	1393204-2
V23148-B0002-B101				1 form A (NO)	1393204-3
V23148-B0003-B101				1 form A (NO)	1393204-5
V23148-B0003-C101				1 form B (NC)	1393204-6
V23148-B0005-A101				1 form C (CO)	1393204-7
V23148-B0005-B101				1 form A (NO)	1393204-8
V23148-B0005-C101				1 form B (NC)	1393204-9

This list represents the most common types and does not show all variants covered by this data sheet.

Other types on request

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[V23148-B0008-A101](#)