

SCHRACK POWER PCB RELAY U/UB (V23148)

GENERAL PURPOSE RELAYS
PCB RELAYS

FEATURES

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

APPLICATIONS

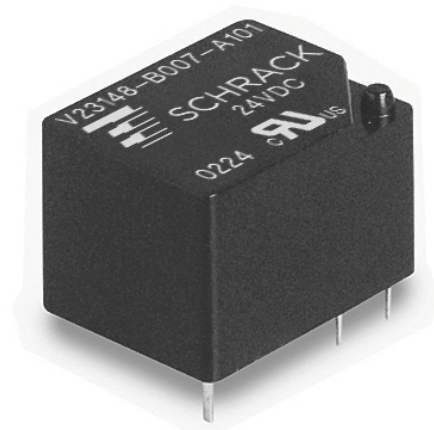
- Heating control
- Installation
- Battery powered equipment

APPROVALS

- UL E214025



Technical data of approved types on request.



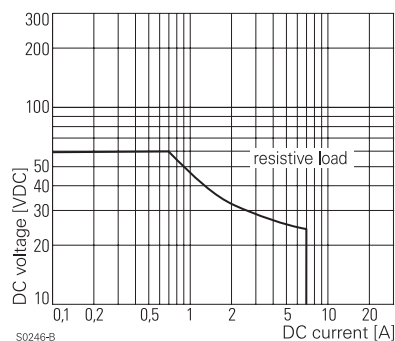
CONTACT DATA

	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	7 A	7 A	5 A
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		

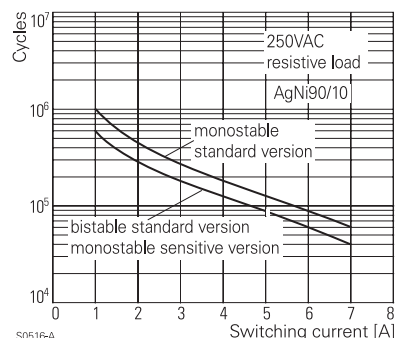
CONTACT RATINGS

Type	Contact	Load	Cycles
UL508			
UL508 U/UB C/A/B	(CO/NO/NC)	7A, 250VAC, general purpose, 40°C	6,000

MAX. DC LOAD BREAKING CAPACITY



ELECTRICAL ENDURANCE



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	-

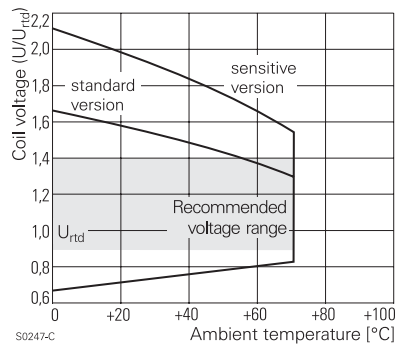
COIL VERSIONS, DC-COIL

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance $\Omega \pm 10\%$	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
bistable 1 coil					
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

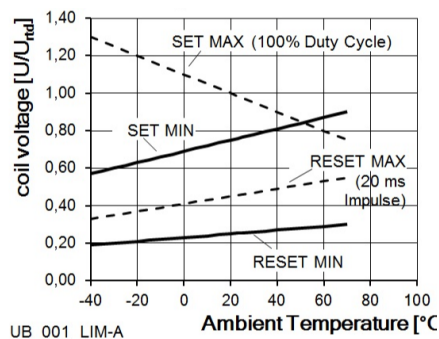
All figures are given for coil without pre-energization, at ambient temperature +23°C.

Other coil voltages on request.

COIL OPERATING RANGE DC



COIL OPERATING BISTABLE



INSULATION DATA

	2kVrms Version V23148-*O***	4kVrms Version V23148-*I***
Initial dielectric strength		
Between open contacts	1000Vrms	1000Vrms
Between contact and coil	2000Vrms	4000Vrms
Clearance / creepage		
between contact and coil	$\geq 2.5/2.5\text{mm}$	$\geq 3.5/3.5\text{mm}$
Material group of insulation parts	$\geq \text{IIIa}$	$\geq \text{IIIa}$
Tracking index of relay base	PTI225V	

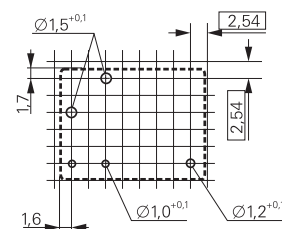
OTHER DATA

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	RT III - 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/ 5 s
Packaging/unit	25 pcs.

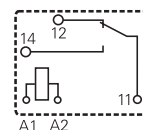
PCB LAYOUT / TERMINAL ASSIGNMENT

Bottom view on solder pins

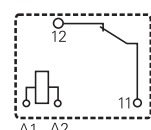
MONOSTABLE AND BISTABLE 1 COIL



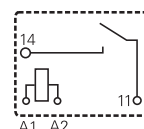
FORM C CONTACT (CO)



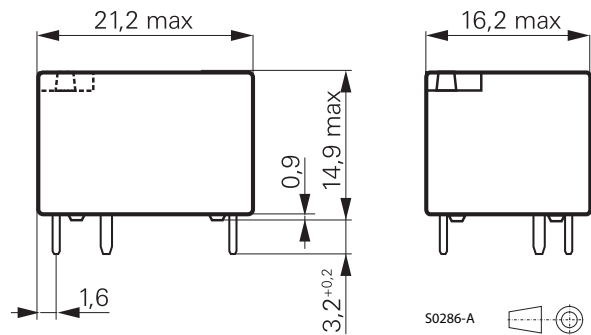
FORM B CONTACT (NC)



FORM A CONTACT (NO)



DIMENSIONS (Unit: mm)



ORDERING INFORMATION

Part Number

V23148 -A 0 0 07 -A 101

Type

V23148	Power PCB Relay U/UB
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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 Standard
1	Sensitive
0	Bistable Standard

Contact configuration

101	AGNI10
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2) AgCdO contacts are discontinued (see PCN E-17-015248)
3) Relay color changed from orange to nature white (see PCN P-13-009534)

Contact configuration

A	1 form C contact (1 CO)
B	1 form A contact (1 NO)
C	1 form B contact (1NC)

Contact configuration

Coil code:	Coil code: please refer to coil versions table
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SCHRACK POWER PCB RELAY U/UB (V23148)

General Purpose Relays PCB Relays

PRODUCT INFORMATION

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	

PRODUCT INFORMATION

Product code	Version	Dielectric	Version	Arrangement	Part number
V23148-B1001-A101	Bistable relay, UB	2000 Vrms contact-coil	Standard	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

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