

Power PCB Relay U/UB

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



Applications

Heating control, installation, battery powered equipment

F0153-C

Approvals

UL E194065

Technical data of approved types on request

Contact data

Contact configuration	1 CO, 1 NO or 1 NC
Contact set	single contact
Type of interruption	micro disconnection
Rated voltage / max. switching voltage AC	250 / 400 V
Rated current	standard and bistable: 7 A sensitive: 5 A
Maximum breaking capacity AC	standard and bistable: 1750 VA sensitive: 1250 VA
Limiting making capacity, max 4 s, duty factor 10%	12 A
Contact material	AgNi 90/10
Rated frequency of operation with / without load	10/300 min ⁻¹
Operate- / reset time	5/3 ms
Operate- / release time	standard: typ. 5/3 ms sensitive: typ. 7/3 ms
Bounce time NO / NC contact	typ. 2/10 ms

Contact ratings

Type	Contact	Load	Ambient temp. [°C]	Cycles
UL 508				
all	CO/NO/NC	7 A, 250 VAC, general purpose,	40°C	6.000

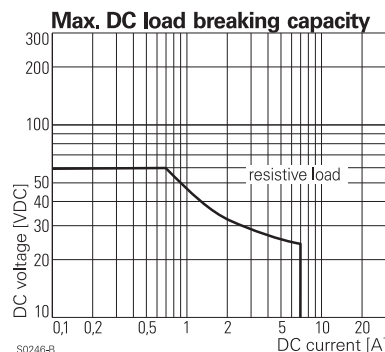
Coil data

	monostable	sensitive
Rated coil voltage range DC coil	6 ... 48 VDC	
Operative range to IEC 61810	2	

Coil versions, DC-coil

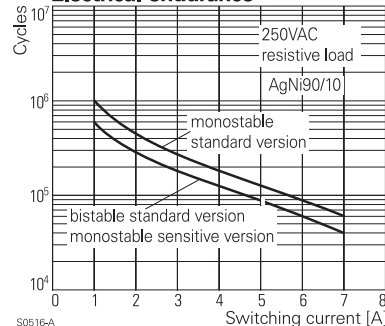
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
standard coil					
003	6	4.2	0.6	80±10%	450
005	12	8.4	1.2	320±10%	450
007	24	16.8	2.4	1280±10%	450
008	48	33.6	4.8	3800±10%	606
sensitive coil					
103	6	4.4	0.6	110±10%	327
105	12	8.8	1.2	440±10%	327
107	24	17.5	2.4	1780±10%	324
108	48	35.0	4.8	4000±10%	576

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request



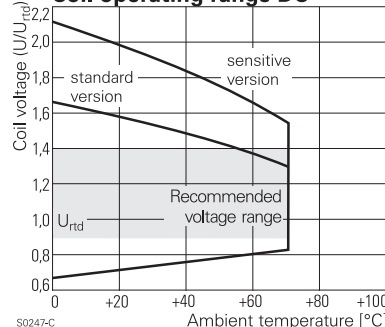
S0246-B

Electrical endurance



S0516-A

Coil operating range DC



S0247-C

Power PCB Relay U/UB (Continued)

Coil data		bistable	
Rated coil voltage range		6 ... 48 VDC	
Rated operate power		900...1300 mW / 20 ms	
Reset voltage min., % of rated coil voltage		25%	
Reset voltage max., % of rated coil voltage		45%	

Coil versions, bistable					
Coil code	Rated voltage VDC	Operate voltage VDC	Reset voltage VDC	Coil resistance Ohm	Rated coil power mW
003	6	4.7	1.5	33±10%	1091
005	12	9.4	3.0	119±10%	1210
007	24	18.7	6.0	475±10%	1213
008	48	37.4	12.0	1750±10%	1317

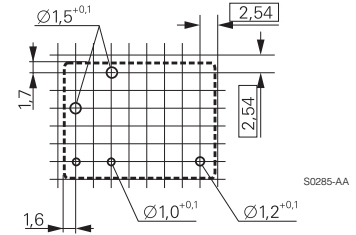
All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

Insulation	
Dielectric strength coil-contact circuit	2000 V _{rms} version V23148-*0*** 4000 V _{rms} version V23148-*1***
	open contact circuit 1000 V _{rms}
Clearance / creepage coil-contact circuit	≥ 2.5 / 2.5 mm version V23148-*0*** ≥ 3.5 / 3.5 mm version V23148-*1***
Material group of insulation parts	≥ IIIa
Insulation to IEC 61810-1	
Type of insulation coil-contact circuit	basic
	open contact circuit micro disconnection
Rated insulation voltage	250 V
Pollution degree	2
Rated voltage system	230 / 400 V
Overvoltage category	II

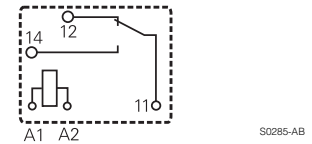
Other data	
Mechanical endurance	20x10 ⁶ cycles
Material	
RoHS - Directive 2002/95/EC	compliant as per produc date code 0402
Environment	
Ambient temperature range	-25...+70°C
Vibration resistance (function) NO / NC contact	10 / 10 g
Shock resistance (function) NO / NC contact	10 / 10 g
Category of protection	RT III - wash tight
Processing	
Resistance to soldering heat wash-tight version	260°C / 5 s
Relay weight	9.5 g
Packaging unit	25 pcs

PCB layout / terminal assignment
Bottom view on solder pins

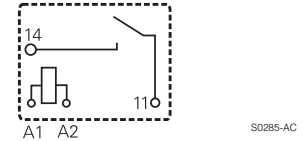
Monostable and bistable 1 coil



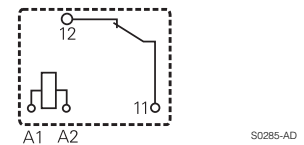
CO contact



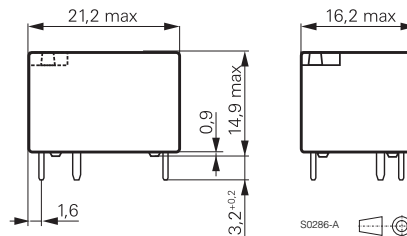
NO contact



NC contact



Dimensions



Power PCB Relay U/UB (Continued)

Product key	Typical product key	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 2 kV _{rms} 1 4 kV _{rms}							
Version	monostable		bistable					
0	standard		0 standard					
1	sensitive							
Coil	03 6 VDC		07 24 VDC					
	05 12 VDC		08 48 VDC					
Contact configuration	A 1 CO contact (1 form C)		C 1 NC contact (1 form B)					
	B 1 NO contact (1 form A)							
Contact material	101 AgNi10							

Other types on request

Product key	Version	Dielectric	Version	Configuration	Coil	Part number
V23148-A0003-A101	monostable	2000 V _{rms}	standard	1 CO contact	6 VDC	1393203-4
V23148-A0003-B101	relay 'U'	contact-coil		1 NO contact		1393203-5
V23148-A0005-A101	AgNi10			1 CO contact	12 VDC	1393203-8
V23148-A0005-B101				1 NO contact		1393203-9
V23148-A0007-A101				1 CO contact	24 VDC	1-1393203-1
V23148-A0007-B101				1 NO contact		1-1393203-2
V23148-A0008-A101				1 CO contact	48 VDC	1-1393203-4
V23148-A0105-A101			sensitive		12 VDC	2-1393203-1
V23148-A0107-A101					24 VDC	2-1393203-4
V23148-A1005-A101		4000 V _{rms}	standard		12 VDC	2-1393203-7
V23148-A1007-A101		contact-coil			24 VDC	2-1393203-8
V23148-A1105-A101			sensitive		12 VDC	2-1393203-9
V23148-A1107-A101					24 VDC	3-1393203-1
V23148-B0003-A101	bistable	2000 V _{rms}	standard		6 VDC	1393204-4
V23148-B0005-A101	relay 'UB'	contact-coil			12 VDC	1393204-7
V23148-B0007-A101	AgNi10				24 VDC	1-1393204-0
V23148-B0008-A101					48 VDC	1-1393204-3