

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
- RoHS compliant (Directive 2002/95/EC) as per product date code 0402



F0153-B

Applications

Heating control, installation, battery powered equipment

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 current	standard and bistable: 7 A sensitive: 5 A
Rated voltage / max.switching voltage AC	240/400 V
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
Mechanical endurance	20x10 ⁶ cycles
Rated frequency of operation with / without load	10/300 min ⁻¹

Contact ratings

Type	Load	Cycles
standard and bistable	7 A, 250 VAC, resistive	5x10 ⁴
standard	5 A, 250 VAC, resistive	1,5x10 ⁵
sensitive	5 A, 250 VAC, resistive	1x10 ⁵
bistable	5 A, 250 VAC, resistive	1x10 ⁵
standard and bistable	7 A, 24 VDC, resistive	5x10 ⁴
sensitive	5 A, 24 VDC, resistive	3x10 ⁴

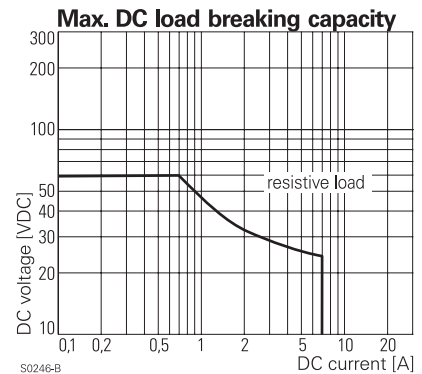
Coil data

	monostable	sensitive
Rated coil voltage range DC coil	6 ... 48 VDC	
Coil power DC coil	3..24 VDC 48 VDC	450 mW 610 mW 570 mW
Operative range	2	

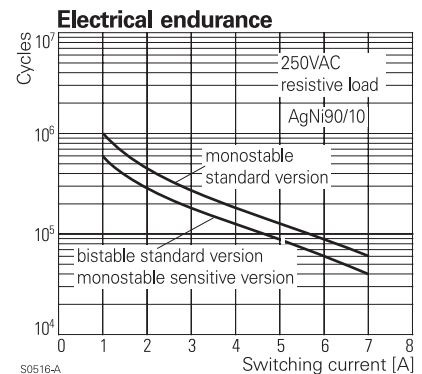
Coil versions, DC-coil

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

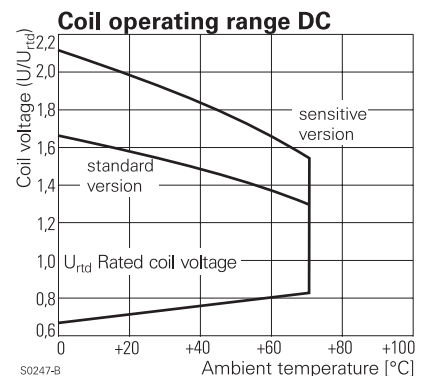
All figures are given for coil without preenergization, at ambient temperature +23°C
 Other coil voltages on request



S0246-B



S0516-A



S0247-B

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

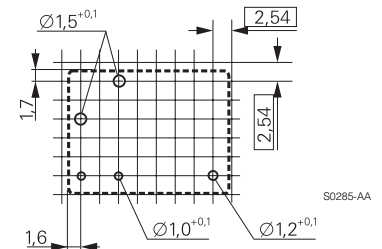
All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

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 60664-1	
Type of insulation coil-contact circuit	basic
open contact circuit	functional
Rated insulation voltage	250 V
Pollution degree	2
Rated voltage system	230/400 V
Overvoltage category	II

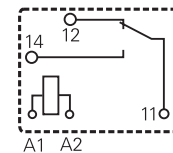
Other data	
RoHS - Directive 2002/95/EC	compliant as per produc date code 0402
Flammability class according to UL94	V-0
Ambient temperature range	-25...+70°C
Operate- / release time	standard: 5/3 ms sensitive: 7/3 ms
Operate- / reset time	5/3 ms
Bounce time NO / NC contact	2/10 ms
Vibration resistance (function) NO / NC contact	10/10 g
Shock resistance (function) NO / NC contact	10/10 g
Category of protection	RT III - wash tight
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

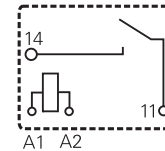
Monostable and bistable 1 coil



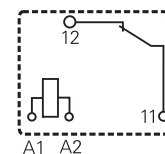
CO contact



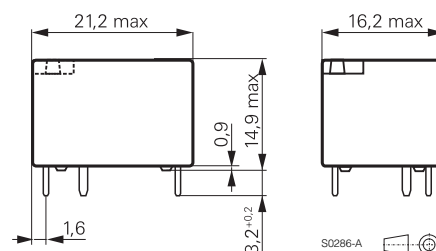
NO contact



NC contact



Dimensions



Power PCB Relay U/UB (Continued)

Product key

V 2 3 1 4 8 - - - - - 1 0 1

Type

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 | C 1 NC contact |
| B 1 NO contact | |

Contact material

- 101** AgNi10

Other types on request

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