

Miniature Power Relay U/UB

1 pole 7 A, mono or bistable




- 1 C/O or 1 N/O or 1 N/C contact
- Bistable and DC-version
- Standard version with 230 mW pull-in power
- Sensitive version with 180 mW pull-in power
- Sealed version
- Version for 10 A on request

Applications

Heating control, installation, battery powered equipment

F0153-B

in process 

Contact data

Configuration	1 C/O, 1 N/O or 1 N/C contact
Type of contact	single contact
Rated current	7 A standard and bistable 5 A sensitive
Rated voltage / max. breaking voltage AC	250 Vac / 250 Vac
Maximum breaking capacity AC	1750 VA standard and bistable 1250 VA sensitive
Make current (max. 4 s at duty cycle 10%)	12 A

Contact life

Type	Load	Operations
standard and bistable	7 A, 24 Vdc, resistive	5x10 ⁴
sensitive	5 A, 24 Vdc, resistive	3x10 ⁴
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

Coil data

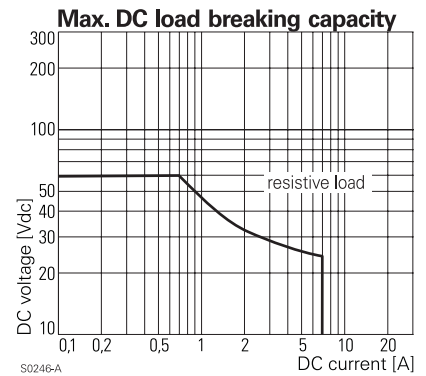
		monostable	sensitive
Nominal voltage		6...48 Vdc	
Nominal coil power	3..24 Vdc	450 mW	330 mW
	48 Vdc	610 mW	570 mW
Operate category		1 / a	

Coil versions, monostable

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
standard						
003	6	4.2	0.6	10.5	80±10%	75.0
005	12	8.4	1.2	21.1	320±10%	37.5
007	24	16.8	2.4	42.2	1280±10%	18.8
008	48	33.6	4.8	72.4	3800±10%	12.6
sensitive						
103	6	4.4	0.6	12.6	110±10%	54.6
105	12	8.8	1.2	25.3	440±10%	27.3
107	24	17.5	2.4	50.6	1780±10%	13.5
108	48	35.0	4.8	76.3	4000±10%	12.0

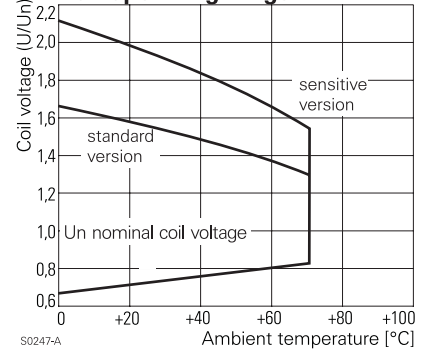
All figures are given for coil without preenergization, at ambient temperature +20°C

Other coil voltages on request



S0246-A

Coil operating range DC



S0247-A

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Coil data	bistable
Nominal voltage	6...48 Vdc
Operate power	600..800 mW
Nominal energization power / -time	900...1300 mW / 20 ms
Reset voltage min.	25 % U_{nom}
Reset voltage max.	45 % U_{nom}

Bistable coil versions

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Reset voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
003	6	4.7	1.5	6.2	33±10%	181.8
005	12	9.4	3.0	12.4	119±10%	100.8
007	24	18.7	6.0	24.7	475±10%	50.5
008	48	37.4	12.0	49.4	1750±10%	27.4

All figures are given for coil without preenergization, at ambient temperature +20°C
Other coil voltages on request

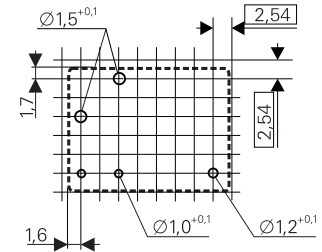
Insulation

Dielectric strength	coil-contacts	2000 V_{rms} version V23148-*0*** 4000 V_{rms} version V23148-*1***
	open contact circuit	1000 V_{rms}
Surge voltage resistance	coil-contacts	5000 V_{rms}
Clearance / creepage		2.5 / 2.5 mm version V23148-*0*** 3.5 / 3.5 mm version V23148-*1***
	Insulation to VDE 0110b (2/79)	
Insulation category / reference voltage	B / 250	open contact circuit
	B / 125	contact/coil
Tracking resistance of relay base		CTI 250

PCB layout / terminal assignment

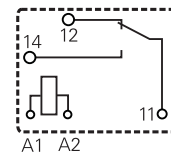
View on solder pins
Dimensions in mm

Monostable and bistable 1 coil



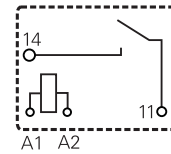
S0285-AA

C/O contact



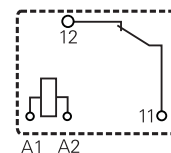
S0285-AB

N/O contact



S0285-AC

N/C contact



S0285-AD

Miniature Power Relay U/UB

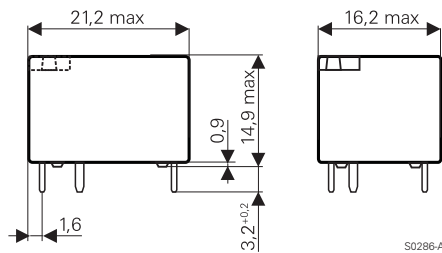
1 pole 7 A, mono or bistable

Other data

Flammability class UL	V-0	
Ambient temperature	-25...+70 °C	
Mechanical life	20x10 ⁶ operations	
Max. switching rate at rated- / minimum load	300 min ⁻¹ / 10 min ⁻¹	
Operate- / release time	standard	6 / 3 ms
	sensitive	7 / 3 ms
Operate- / reset time	5 / 3 ms	
Bounce time N/O contact/N/C contact	2 / 10 ms	
Vibration resistance	10 g, 10...55 Hz	
Shock resistance (function)	10 g at 11 ms half sine	
Protection category	IP 67	
Relay weight	9.5 g	
Packaging unit	25 / 500 pcs.	

Dimensions

Dimensions in mm



Ordering 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 contact-coil

- 0** 2 kV_{rms}
- 1** 4 kV_{rms}

Version

- 0** monostable standard
- 1** monostable sensitive
- 0** bistable standard

Coil

- 03** 6 V
- 05** 12 V
- 07** 24 V
- 08** 48 V

Contact configuration

- A** 1 C/O contact
- B** 1 N/O contact
- C** 1 N/C contact

Contact material

- 101** AgNi10

Other types on request

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