

Subminiature Relays

Type ZFH A...

Monostable



- Subminiature relay
- Dual-in-line-terminals
- Switching capacity 1,25 A
- DC coils 3 to 48 VDC
- 2 change over contacts
- General purpose, industrial electronics
- Standard as sealed
- Ultra high sensitivity
- Low profile and light weight
- High reliability
- UL / cUL approved

Product Description

Telecommunications.
Office machine.
Instruments.
Computer.

Industrial process control.
Remote control.

Ordering Key

ZFH A 002 12/1

Type _____
Version (A = Sensitive) _____
(C = Standard) _____
Contact code _____
Coil rated voltage _____

Type Selection

Contact configuration	Contact rating	Contact code
2 change over contacts (DPDT {2-form C})	1 A	002

Coil Characteristics, DC (20°C) Type A Sensitive (0,15 W)

Rated voltage VDC	Winding Resistance $\Omega \pm 10\%$	Operating range		Must release VDC
		Min. VDC	Max. VDC	
3.0	70	2.25	9.72	0.24
4.5	135	3.40	13.50	0.36
5.0	167	3.80	15.00	0.40
6.0	240	4.50	18.00	0.48
9.0	540	6.80	27.00	0.72
12.0	960	9.00	35.60	0.96
18.0	2160	13.50	53.40	1.44
24.0	3840	18.00	70.10	1.92

Coil Characteristics, DC (20°C) Type C Standard (0,36 W)

Rated voltage VDC	Winding Resistance $\Omega \pm 10\%$	Operating range		Must release VDC
		Min. VDC	Max. VDC	
3.0	25	2.25	5.70	0.15
5.0	70	3.75	9.72	0.25
6.0	100	4.50	11.62	0.30
12.0	400	9.00	23.24	0.60
24.0	1600	18.00	46.47	1.20
48.0	6400	36.00	92.94	2.40

Contact Characteristics

Rating	1,25 A
Material (standard version)	AgPd - Au
Initial contact resistance	50 m Ω at 1mA/20 mV
Current	
Rated current	1,25 A-24 VDC/0,5 A-120 VAC
Max Switching current	1,25 A
Min. switching current	10 μ A
Voltage	
Rated voltage	24 VDC / 120 VAC
Max. switching power with resistive load	24 W / 60 VA
Max switching voltage	60 VDC / 120 VAC
Min. switching voltage	10 mV
Min. switching power	0.5 mW
Life	
Electrical life at 1A/24VDC resistive	5 x 10 ⁵ cycles
at 0.5A/120VDC resistive	2 x 10 ⁵ cycles
Mechanical life	20 x 10 ⁷ cycles
Max. switching frequency	40 Hz

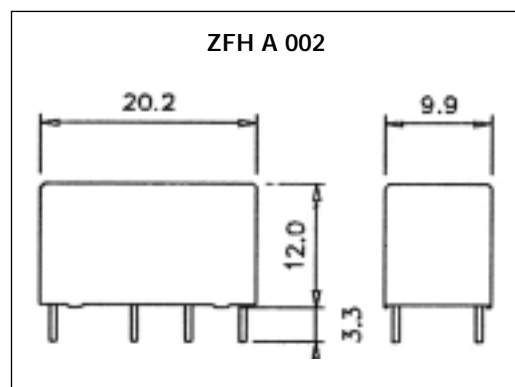
Insulation

Test voltage (1 min.)	
Open contact	500 VAC
Contacts/coil	1000 VAC
Contacts of different polarity	1000 VAC
Insulation resistance at 500 VDC	> 1000 M Ω
Surge strength	> 1500 M Ω

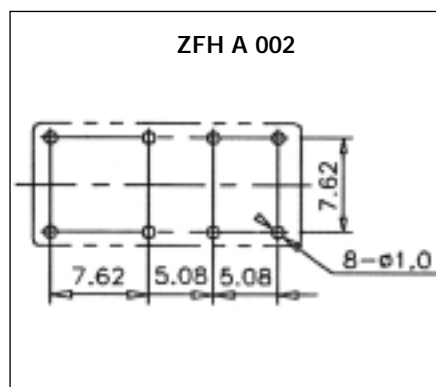
General Data

Max. Operating time at rated voltage (excl. bounces)	≤ 4.5 ms
Max. Release time (excl. bounces)	≤ 1.5 ms
Vibration resistance	1.5 mm p.p. 10 to 55 Hz
Ambient temperature	-40 °C to +80 °C
Shock resistance	10 G, 11 ms
Weight	~ 4.5 g
Working class / type of serv.	C / continuous

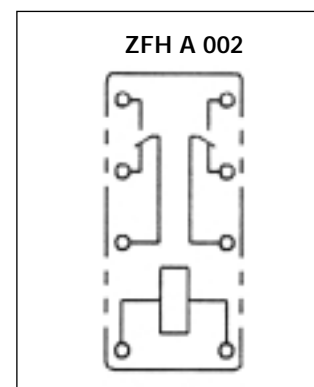
Dimensions



Pin View



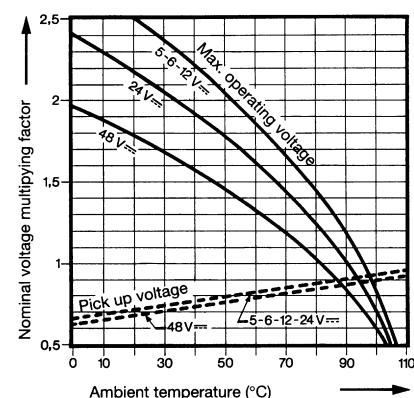
Wiring Diagram



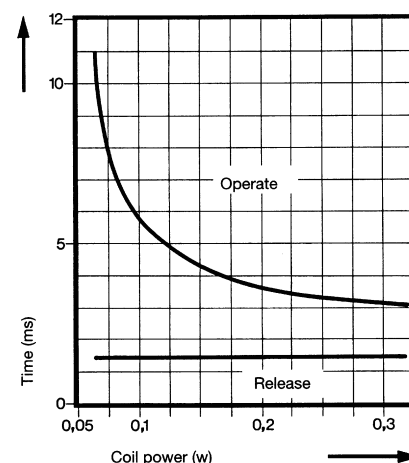
All parameters, unless otherwise specified, are measured at ambient temperature 20°C.

Diagrams

1 Operating voltage depending on ambient temperature



2 Operating time values depending on coil power



Approvals



U.S.A. CANADA

The approvals stated are not generally applicable to all relay versions of a particular type.

For further information please apply for relevant data sheets ref. 3.84.00.10.X