

948 Series Relay

FEATURES

- UL safety approval.
- Heavy-duty 20A miniature high power relay.
- Surge strength: 4500 VAC.
- 1 form A (SPST) contact.
- Standard power consumption in small package.
- Nominal power 900mW.
- Operating power 510mW.
- P.C.B. terminal & quick connect terminal.
- Washable type.



UL FILE NO: E169563

ORDERING INFORMATION

$\frac{948}{1} - \frac{1A}{2} - \frac{6}{3} \quad \frac{D}{4} \quad \frac{P}{5}$	
1. Model Number	4. Coil Type
2. Contact Arrangement	D: DC
1A = 1 Form A (SPST-NO)	5. Terminal Form
3. Coil Voltage	Nil = General Type
5~24V	Top: Tab Terminal Bottom: PCB Terminal
	P = Bottom P.C.B. Terminal Only

COIL RATINGS (at 20°C)

COIL TYPE	Coil Nominal Voltage (V)	Coil Resistance ($\Omega \pm 10\%$)	Pick-Up Voltage (V) $\leq$	Drop-Out Voltage (V) $\geq$	Nominal Current (mA)
DC Standard Coils	5	27.7	3.75	0.5	180
	6	40	4.5	0.6	150
	9	90	6.75	0.9	100
	12	160	9	1.2	75
	18	360	13.5	1.8	50
	24	640	18	2.4	37.5

* Max Continuous Voltage at 20°C: 130% of Coil Nominal Voltage.

CONTACT RATINGS

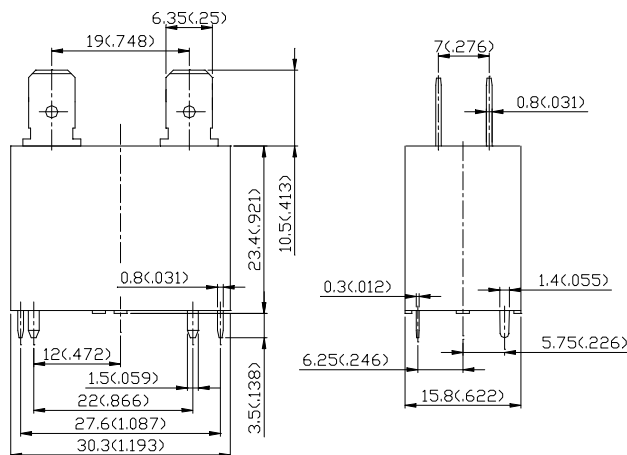
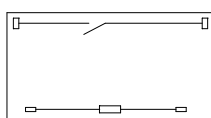
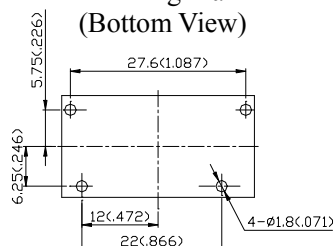
Contact Arrangement	1 Form A (SPST-NO)
Max. Switching Power	5000VA
Max. Switching Voltage	250VAC
Max. Switching Current	20A
Contact Resistance	$\leq 100\text{m}\Omega$
Resistive Load	20A/250VAC
Inductive Load ($\text{Cos}\phi=0.4$)	15A/250VAC
Contact Material	Ag-CdO

CHARACTERISTICS

Electrical Life	1×10^5
Mechanical Life	2×10^6
Initial Insulation Resistance	Min. 1000M Ω 500VDC
Contact Resistance (Initial)	$\leq 100\text{m}\Omega$
Operate Time	$\leq 20\text{ms}$
Release Time	$\leq 10\text{ms}$
Initial Dielectric Strength	50/60Hz 1000VAC 1 min. (between open contacts) 50/60Hz 4500VAC 1 min. (between contacts and coil)
Vibration Resistance	Malfunction: 10 to 55Hz at Double Amplitude of 1.5mm Destructive: 10 to 55Hz at Double Amplitude of 1.5mm
Shock Resistance	Malfunction: 10G (11ms) / Destructive: 100G (6ms)
Ambient Temperature	$-25^\circ\text{C} \sim +55^\circ\text{C}$
Relative Humidity	85% at 40°C
Unit Weight	Approx. 22g

OUTLINE DIMENSIONS

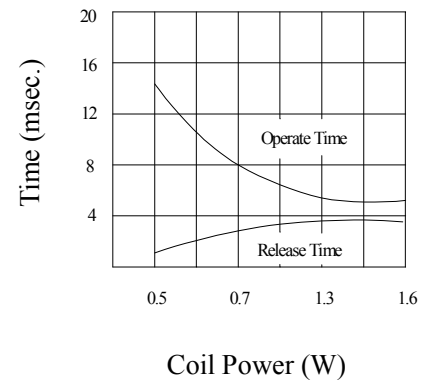
Dimensions

REMARK: Tolerance of outline dimensions: $\pm 0.2(.008)$.Internal Connections
(Bottom View)Drilling Plan
(Bottom View)

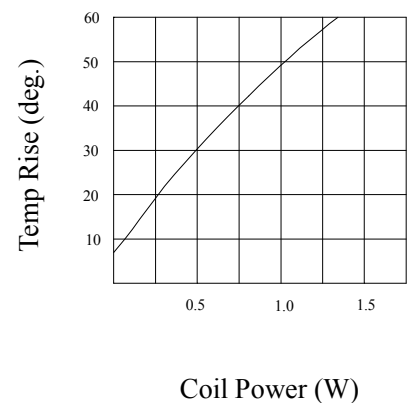
UNIT: mm (inch)

948 Referential Data

Timing



Coil Temperature Rise



Life Curves

