Relays \& Solenoids


FEATURES

- The variety of contact arrangements 2 Form $A$ 2 Form B, 3 Form A 1 Form B, 4 Form A
- Latching types available
- High sensitivity in small size 100 mW pick-up and 200 mW nominal operating power
- High shock and vibration resistance Shock: 50 G Vibration: 10 to $\mathbf{5 5 ~ H z}$ at double amplitude of 3 mm .118 inch


## 2 coil latching

Diagram shows the "reset" position when terminals 6 and 7 are energized. Energize terminals 1 and 12 to transfer contacts.


- Wide switching range From $100 \mu \mathrm{~A} 100 \mathrm{mV}$ DC to 4 A 250 V AC - Low thermal electromotive force Approx. $3 \mu \mathrm{~V}$
- Dual-In-Line packaging arrangement


## - Amber types available

TYPICALAPPLICATIONS
Telecommunications equipment, data processing equipment, facsimiles, alarm equipment, measuring equipment.


SPECIFICATION
Contacts

| Arrangement |  | 2 Form A 2 Form B, 3 Form A 1 Form B, 4 Form A |
| :---: | :---: | :---: |
| Initial contact resistance, max. (By voltage drop 6 V DC 1 A) |  | $50 \mathrm{~m} \Omega$ |
| Initial contact pressure |  | Approx. 12 g .42 oz |
| Contact material |  | Au clad Ag alloy (Cd free) |
| Electrostatic capacitance |  | Approx. 3pF |
| Thermal electromotive force (at nominal coil voltage) |  | Approx. $3 \mu \mathrm{~V}$ |
| Rating (resistive) | Nominal switching capacity | $4 \mathrm{~A} 250 \mathrm{VAC}, 3 \mathrm{~A} 30 \mathrm{~V}$ DC |
|  | Maximum switching power | $1,000 \mathrm{VA}, 90 \mathrm{~W}$ |
|  | Maximum switching voltage Max switching current | $250 \mathrm{VAC}, 30 \mathrm{VDC}(48 \mathrm{VDC}$ at less than 0.5 A <br> $4 \mathrm{~A}(\mathrm{AC}), 3 \mathrm{~A}(\mathrm{DC})$ |
|  | Min. switching capacity (Reference value) ${ }^{* 1}$ | $100 \mu \mathrm{~A} 100 \mathrm{~m}$ V DC |

## $9{ }^{9}$

| Part No. | Product No. | Manufacturer | Description |
| :--- | :---: | :--- | :--- |
| 46948 | S2EBL2-24V | NAIS | 4 A CAPACITY, THE VARIETY OF CONTACT ARRAN |

## Characteristics (at $25^{\circ} \mathrm{C} 77^{\circ} \mathrm{F} \mathbf{5 0 \%}$ Relative humidity)

| $\|$Max. operating speed 20 cpm for maximum load, 50 cps for <br> low-level load (1 mA 1 V DC) <br> Initial insulation resistance* $10,000 \mathrm{M} \Omega \mathrm{at} \mathrm{500} \mathrm{V} \mathrm{DC}$ |
| :--- |
| Initial contact bounce, max. |



4 Form $A 4$ Form B

| 1 | 5 | 6 | 7 | 8 |
| ---: | ---: | ---: | ---: | ---: |
| + | 9 | 0 | 0 | 9 |
| 0 |  |  |  |  |
| -0 | 0 | 0 | 0 | 6 |
| 2 | 9 | 10 | 11 | 12 |

## FEATURES

- High contact reliability

High contact reliability is achieved through the use of a double contact. - Forced operation contacts
(2 Form A 2 Form B)
N.O. and N.C. side contacts are connected through a card so that one interacts with the other in movement. In case of a contact welding, the other keeps a min. 0.5 mm .020 inch contact gap.

- Independent operation contacts (4 Form A 4 Form B)

There are 4 points of forced operation contacts.
Each pair of contacts is free from the main armature and is independent from each other. So if a N.O. pair of contacts are welded, the other 3 N.O. contacts are not effected (operate properly) That enables to plan a circuit to detect welding or go back to the beginning condition.

- Separated chamber structure ( 2 Form A 2 Form B, 4 Form A 4 Form B) N.O. and N.C. side contacts are put in each own space surrounded with a card and a body-separater. That prevents short circuit between contacts, which is caused by their springs welding or damaged.
- High breakdown voltage 2,500 Vrms between contacts and coil


## - High sensitivity

Realizes thin shape and high sensitivity ( 500 mW nominal operating power) by utilizing high-
efficiency polarized magnetic circuit with 4-gap balanced armature.

- Complies with safety standards

Standard products are UL, CSA, TÜV and SEV certified. Comform to European standards. TÜV certified (945/EL, 178/88). Complies with SUVA
European standard.
TYPICAL APPLICATIONS

- Industrial equipment such as presses and machine tools


## SPECIFICATIONS <br> Contact <br> TUV ( ${ }_{\mathbf{S}}^{\mathbf{S}}$

Characteristics (at $20^{\circ} \mathrm{C} 68^{\circ} \mathrm{F}$ )

| Contact arrangement |  | 2 Form A 2 Form B |
| :---: | :---: | :---: |
| Max. operating speed |  | 180 cpm (at nominal voltage) |
| Initial insulation resistance*1 |  | Min. $1,000 \mathrm{M} \Omega$ at 500 V DC |
| Shock resistance | Functional** | Min. $294 \mathrm{~m} / \mathrm{s}^{2}\{30 \mathrm{G}\}$ |
|  | Destructive*5 | Min. $980 \mathrm{~m} / \mathrm{s}^{2}\{100 \mathrm{G}\}$ |
| Vibration resistance | Functiona*** | 10 to 55 Hz at double amplitude of 2 mm |
|  | Destructive | 10 to 55 Hz at double amplitude of 2 mm |
| Unit weight |  | Approx. 38 g 1.34 oz |
| Coil |  |  |
| Nominal operating power |  | 500 mW |


| Part No. | Product No. | Manufacturer | Description | Coil Voltage | Type |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 46955 | SF2D-DC24V | NAIS | POLARISED, MONOSTABLE SAFETY RELAY | 24 V | SF RELAYS Double contact |

