



V23050 series

SR6 "Safety Relay" - PCB, neutral, monostable relay with six forcibly guided contacts.

UL File E214024

VDE No. 116064

TUV-Rheinland, No. 945/EZ 116/99

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Features

- 4 NO and 2 NC or 3 NO and 3 NC or 5 NO and 1 NC contacts.
- Extremely compact.
- High insulation spacing for the safe separation of the contact circuits.
- Sealed case.
- Ideal for emergency shut-off, machine control, elevator and escalator control, light barrier control.

Contact Data @ 23°C

Type: Single button contacts, forcibly guided.
Arrangements: 3 NO and 3 NC, 4 NO and 2 NC or 5 NO and 1 NC.
Material: Silver nickel alloy.
Max. Continuous Current at Max. Amb. Temp.: 8A, 1 contact loaded.
Max. Switched Voltage: 400VAC/VDC.
Max. Switched Power: 2,000VA.
Max. Switching Rate: 6 operations/min. at rated load.
 600 operations/min. at minimum load.
Minimum Load: 50mW.
Initial Contact Resistance: 100 mΩ - 1A/24VDC.
Expected Mechanical Life: 10⁷ operations.
Electrical Life: 250VAC, 70°C ambient, 1 NO loaded with 8A and 1 NC loaded with 5A: 75,000 operations.

Initial Dielectric Strength

Between Open Contacts: 1,000VAC rms.
Between Adjacent Contacts: 3,000VAC rms.
Between Coil and Contacts: 3,000VAC rms.

Coil Data @ 23°C

Voltage: 5 to 110VDC.
Nominal Power: 1.2W.
Max. Coil Temperature: 130°C.
Duty Cycle: Continuous.

Coil Data @ 23°C

Rated Coil Voltage (VDC)	Coil Resistance (Ohms)	Must Operate Voltage (VDC)	Nominal Coil Current (mA)
5	21 ± 2	3.75	240
6	30 ± 3	4.5	200
9	68 ± 7	6.8	130
12	120 ± 12	9.0	100
18	270 ± 27	13.5	70
21	370 ± 40	15.8	60
24	480 ± 50	18.0	50
40	1,330 ± 130	30.0	30
60	3,000 ± 300	45.0	20
85	6,020 ± 600	64.0	14
110	10,000 ± 1,000	82.5	11

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Operate Data @ 23°C

Minimum Release Voltage: 10% of nominal voltage.
Minimum Operating Voltage @ 70°C: 85% of nominal voltage.

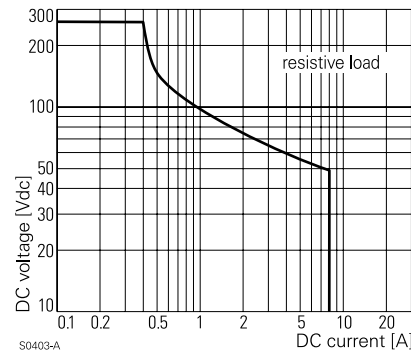
Environmental Data

Temperature Range: -25°C to +70°C.
Solder Bath Temp./Max. Duration: 260°C/5s.

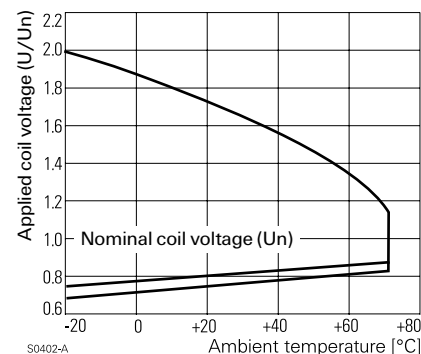
Mechanical Data

Termination: Printed circuit terminals.
Enclosure (UL94V-2 Flammability Ratings): Sealed (RTIII) plastic case.
Weight: 1.01 oz. (30g).

Max. DC Load Breaking Capacity



Coil Operating Range



Specifications and availability subject to change.

www.tycoelectronics.com
 Technical support:
 Refer to inside back cover.

Ordering Information

Typical Part Number ►

V23050

A1

012

A

5

33

1. Basic Series:

V23050 = SR6 safety relay.

2. Enclosure:

A1 = Sealed.

3. Coil Voltage:

005 = 5VDC 006 = 6VDC 009 = 9VDC 012 = 12VDC 021 = 21VDC
024 = 24VDC 040 = 40VDC 060 = 60VDC 085 = 85VDC 110 = 110VDC

4. Contact Type:

A = Single contact.

5. Contact Material:

5 = Silver nickel.

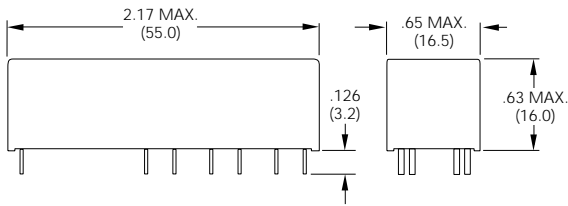
6. Contact Arrangement:

33 = 3 NO and 3 NC.
42 = 4 NO and 2 NC.
51 = 5 NO and 1 NC.

Our authorized distributors are more likely to stock the following items for immediate delivery.

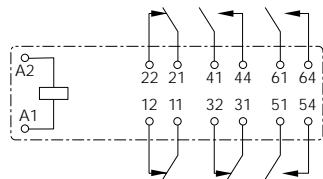
None at present.

Outline Dimensions

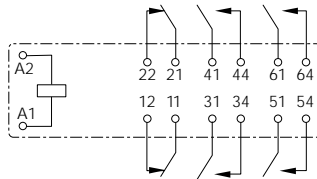


Wiring Diagrams (Bottom Views)

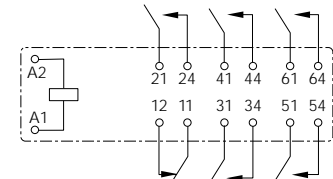
3 NO and 3 NC



4 NO and 2 NC

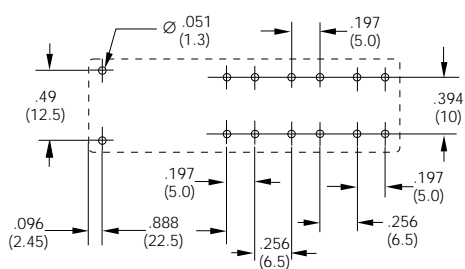


5 NO and 1 NC



Suggested PC Board Layouts (Bottom Views)

3 NO and 3 NC, 4 NO and 2 NC



5 NO and 1 NC

