

## V23100-V4 series

### Dual In-line Package and Single In-line Package Dry Reed Relays

#### Features

- DIP (flat and high) and SIP versions.
- For use in measuring and control systems.
- Direct coil control with TTL-signals.
- IC pin compatible.
- Low operating noises and low thermoelectric voltage.
- Ultrasonic cleanable.
- High vibration and shock resistance.

#### Contact Data @ 25°C

| Type of Relay                          | DIP Version                      |                | SIP Version    |
|--|----------------------------------|----------------|----------------|
| Type of Contacts                       | SPST, 1 Form A<br>DPST, 2 Form A | SPDT, 1 Form C | SPST, 1 Form A |
| Max. Switch. Current                   | 0.5A                             | 0.25A          | 0.5A           |
| Max. Continuous Current                | 1A                               | 1.2A           | 1A             |
| Max. Switch. Voltage @ nominal voltage |                                  |                |                |
| 5VDC                                   | 180VDC/MAC                       | 175VDC         | 180VDC/MAC     |
| 12-24VDC                               | 200VDC/MAC                       |                | 200VDC/MAC     |
| Max. Switch. Capacity                  |                                  |                |                |
| VDC                                    | 10W                              | 3W             | 10W            |
| VAC                                    | 10VA                             | 3VA            | 10VA           |
| Expected Mech. Life                    | 5 Million Ops.                   | 4 Million Ops. | 5 Million Ops. |
| Initial Contact Resist.                | 150mΩ @ 10Ma/20mV                |                |                |

#### Initial Dielectric Strength

Between Form A Contacts: 250VDC (12V-24V coils), 210VDC (5V coils).  
 Form C Contacts: 200VDC.  
 Between Coil and Contacts: 1,500VDC.

#### Initial Insulation Resistance

Between Mutually Insulated Conductors: 10<sup>11</sup> ohms @ 500VDC.

#### Coil Data @ 25°C

Nominal Voltage: 5 to 24VDC.  
 Nominal Power: 50 - 288mW.  
 Maximum Coil Power:  
 Temperature Rise:  
 Duty Cycle:

#### Coil Data @ 20°C

| Nominal Voltage (VDC)                       | Resistance ± 10% (Ohms) | Operating Voltage (VDC) |         |
|---|-------------------------|-------------------------|---------|
|   |                         | (Min.)                  | (Max.)  |
| <b>DIP and SIP Version: SPST - 1 Form A</b> |                         |                         |         |
| 5   | 500                     | 3.5                     | 22      |
| 12  | 1,000                   | 8.4                     | 33      |
| 15  | 2,000                   | 10.5                    | 44      |
| 24  | 2,000                   | 16.8                    | 44      |
| <b>DIP Version: DPST - 2 Form A</b>         |                         |                         |         |
| 5   | 200                     | 3.5                     | 14      |
| 12  | 500                     | 8.4                     | 25      |
| 15  | 2,000                   | 10.5                    | 47      |
| 24  | 2,000                   | 16.8                    | 47      |
| <b>DIP Version: SPDT - 1 Form C</b>         |                         |                         |         |
| 5   | 200                     | 3.5                     | 13 (14) |
| 12  | 500                     | 8.4                     | 22 (23) |
| 15  | 2,000                   | 10.5                    | 44 (49) |
| 24  | 2,000                   | 16.8                    | 44 (49) |

\*Values in brackets refer to high relay version with protective diode.

#### Operate Data @ 20°C

Must Operate Voltage: 70% of nominal voltage.  
 Must Release Voltage: 15% of nominal voltage.

| Type of Relay                   | DIP Version                      |                | SIP Version    |
|---------------------------------|----------------------------------|----------------|----------------|
| Type of Contacts                | SPST, 1 Form A<br>DPST, 2 Form A | SPDT, 1 Form C | SPST, 1 Form A |
| Operate Time (Including Bounce) | 0.5ms                            | 0.7ms          | 0.5ms          |
| Release Time (Including Bounce) | 0.2ms                            | 1.0ms          | 0.2ms          |

Operate Bounce:  
 Release Bounce:

#### Environmental Data

Temperature Range: -20°C to +70°C.  
 Vibration, Operational:  
 Shock, Operational:  
 Shock, Non-destructive:

#### Mechanical Data

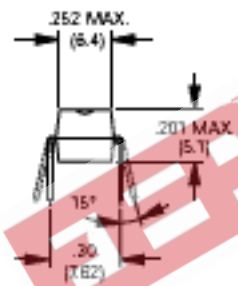
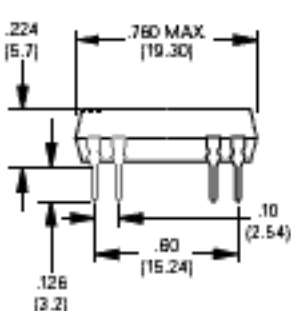
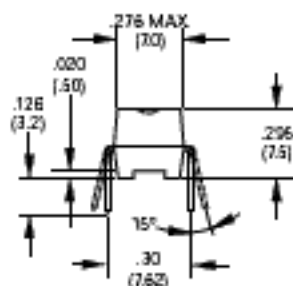
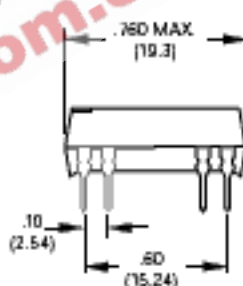
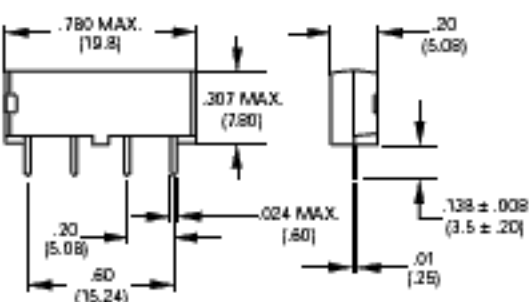
Termination:  
 Enclosure:  
 Weight:

**Ordering Information**

|   |                  |          |           |          |
|---|------------------|----------|-----------|----------|
| <b>Typical Part Number ▶</b>  | <b>V23100-V4</b> | <b>3</b> | <b>24</b> | <b>A</b> |
| <b>1. Basic Series:</b><br>V23100-V4 – DIL and SIP reed relay.  |                  |          |           |          |
| <b>2. Version:</b><br>DIP flat package: 0 – 1 Form A contacts.      3 – 1 Form C standard and 1 Form C with electrostatical shield.<br>DIP high package: 3 – 2 Form A contacts and 1 Form C with diode or electrostatical shield and diode.<br>SIP package: 5 |                  |          |           |          |
| <b>3. Coil Voltage:</b><br>05 – 5VDC      12 – 12VDC      15 – 15VDC      24 – 24VDC  |                  |          |           |          |
| <b>4. Contact Arrangement:</b><br>A – 1 Form A (not for high DIP).      B – 2 Form a (high DIP only).      C – 1 Form C (not for SIP).  |                  |          |           |          |
| <b>5. Options:</b><br>000 – standard.      001 – with electrostatical shield      010 – with diode.      011 – with electrostatical shield and diode.   |                  |          |           |          |

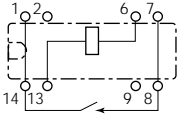
**Stock Items – The following items are normally maintained in stock for immediate delivery.**

|                 |                 |
|-----------------|-----------------|
| V23100V4005A000 | V23100V4505A000 |
| V23100V4012A000 | V23100V4517A000 |
| V23100V4024A000 | V23100V4524A000 |

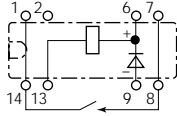
**Outline Dimensions**
**DIP Version (Flat)**

**DIP Version (High)**

**SIP Version**


**Wiring Diagrams (Bottom Views)**  
**DIP Version (Flat)**

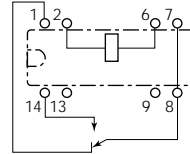
**SPST-1 Form A**  
**standard**



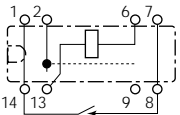
**SPST-1 Form A**  
**w/diode**



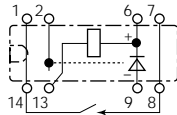
**SPDT-1 Form C**  
**standard**



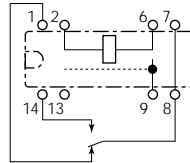
**SPST-1 Form A**  
**w/electrostatic Shield**



**SPST-1 Form A**  
**w/electrostatic shield and diode**

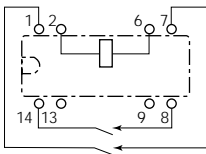


**SPDT-1 Form C**  
**w/electrostatic shield**

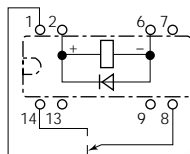


**DIP Version (High)**

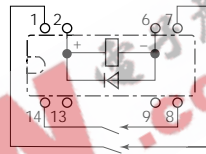
**DPST-2 Form A**  
**standard**



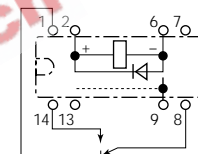
**SPDT-1 Form C**  
**w/diode**



**DPST-2 Form A**  
**w/diode**

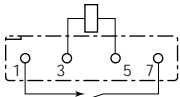


**SPDT-1 Form C**  
**w/electrostatic shield and diode**

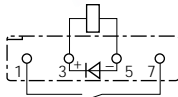


**SIP Version**

**SPST-1 Form A**  
**standard**

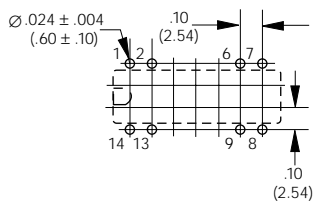


**SPST-1 Form A**  
**w/diode**

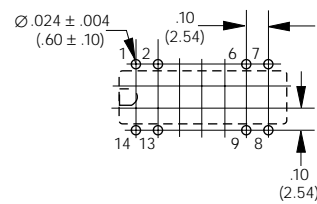


**PC Board Layouts (Bottom Views)**

**DIP Version (Flat)**



**DIP Version (High)**



**SIP Version**

