

Features

- JWD has dual in-line package (DIP) configuration. (14-pin DIP)
- JWS has single in-line package (SIP) configuration.
- Low cost, dry reed reliability with various contact arrangements.
- Wave solderable and immersion cleanable.
- Optional coil suppression diode.

Contact Data @ 25°C

Arrangements: 1 Form A (SPST - NO) on JWD & JWS. 1 Form B (SPST - NC), 1 Form C (SPDT) and 2 Form A (DPST-NO) on JWD only.

Material: Ruthenium.

Expected Mechanical Life: 100 million operations.

Expected Electrical Life:

| | Resistive Load | End of Life Criteria | No. of Operations |
|-------------|-----------------------|----------------------|-----------------------|
| Forms A & B | 20VDC, 500mA | 500mV Loss | 1 x 10 ⁶ |
| | 20VDC, 250mA | 500mV Loss | 20 x 10 ⁶ |
| | Low Level (5VDC, 1mA) | 50 Ohms | 100 x 10 ⁶ |
| Form C | 12VDC, 500mA | 500mV Loss | 1 x 10 ⁶ |
| | 10VDC, 10mA | 50 Ohms | 25 x 10 ⁶ |
| | Low Level (5VDC, 1mA) | 50 Ohms | 100 x 10 ⁶ |

Contact Ratings:

Maximum Switched Voltage: 100VDC for Forms A & B; 28VDC for Form C.

Maximum Switched Current: 500mA for all models.

Maximum Switched Power: 10W for Forms A & B; 3W for Form C.

Initial Contact Resistance: 200 milliohms, max. at 10mA, 6VDC.

Initial Dielectric Strength

Between Open Contacts: 250VDC for Forms A & B; 175VDC for Form C.

Between Contacts and Coil: 500VDC.

Initial Insulation resistance

Between Mutually Insulated Conductors: 10¹⁰ ohms at 100VDC.

Coil Data @ 25°C

See Ordering Information table.

Operate Data @ 25°C

Operate Time (Including Bounce)t: 1.5 ms, max.

Release Time (Including Bounce)t: 0.5 ms, max., for Forms A & B; 3.0 ms, max., for Form C.

† At or from Nominal Coil Voltage.

Environmental Data

Temperature Range: -35°C to +85°C.

Shock: 100 g, max., in three planes for 8 ms, 1/2 wave pulse.

Vibration: 20 g, max., between 10 and 2,000 Hz.

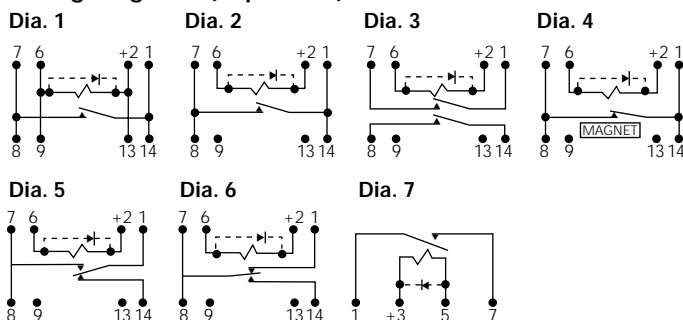
Mechanical Data

Termination: Printed circuit terminals on 0.100" (2.54mm) grid centers.

Enclosure Type: Black molded epoxy package.

Weight: 0.08 oz. (2.3g) approximately.

Wiring Diagrams (Top Views)



Note: Terminal numbers are for reference only and do not appear on relays.

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.

Dimensions are shown for reference purposes only.

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

JWD/JWS series

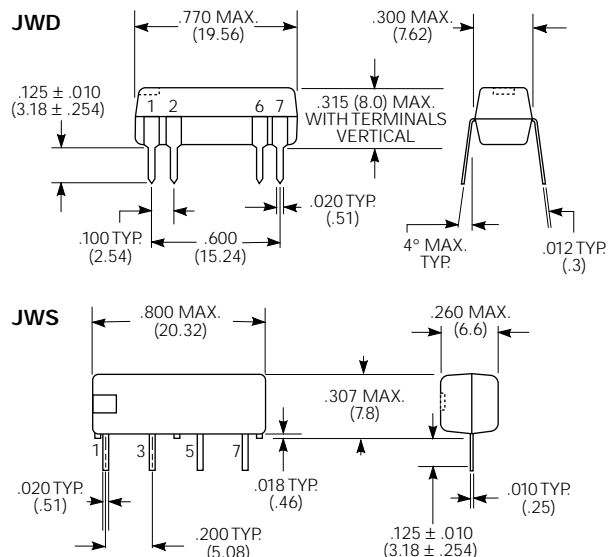
Dual In-Line Package & Single In-Line Package Dry Reed Relays

File E29244 File LR81479

Ordering Information – Boldface items are more likely to be stocked.

| Relay Part No. | Diode | Nom. Voltage (VDC) | Resistance ±10% (Ohms) | Must Operate Voltage (VDC) | Must Release Voltage (VDC) | Max. Voltage (VDC) | Nom. Coil Power (mW) | Wiring Dia. No. |
|--|-------|--------------------|------------------------|----------------------------|----------------------------|--------------------|----------------------|-----------------|
| JWD (DIP units) with 1 Form A (SPST-NO) contacts rated 10W max. | | | | | | | | |
| JWD-107-1 | No | 5/6 | 500 | 3.8 | 0.5 | 19 | 50/72 | 1 |
| JWD-107-5 | Yes | 5/6 | 500 | 3.8 | 0.5 | 19 | 50/72 | 1 |
| JWD-107-3 | No | 12 | 1,200 | 9.6 | 1.0 | 19 | 120 | 1 |
| JWD-107-7 | Yes | 12 | 1,200 | 9.6 | 1.0 | 19 | 120 | 1 |
| JWD-171-5 | No | 24 | 2,150 | 19.2 | 2.0 | 40 | 268 | 2 |
| JWD-171-10 | Yes | 24 | 2,150 | 19.2 | 2.0 | 40 | 268 | 2 |
| JWD (DIP units) with 2 Form A (DPST-NO) contacts rated 10W max. | | | | | | | | |
| JWD-171-21 | No | 5/6 | 200 | 3.8 | 0.5 | 14 | 125/180 | 3 |
| JWD-171-25 | Yes | 5/6 | 200 | 3.8 | 0.5 | 14 | 125/180 | 3 |
| JWD-171-23 | No | 12 | 500 | 9.6 | 1.0 | 19 | 288 | 3 |
| JWD-171-27 | Yes | 12 | 500 | 9.6 | 1.0 | 19 | 288 | 3 |
| JWD-171-24 | No | 24 | 2,200 | 19.2 | 2.0 | 40 | 262 | 3 |
| JWD-171-28 | Yes | 24 | 2,200 | 19.2 | 2.0 | 40 | 262 | 3 |
| JWD (DIP units) with 1 Form B (SPST-NC) contacts rated 10W max. | | | | | | | | |
| JWD-171-12 | No | 5/6 | 500 | 3.8 | 0.5 | 7 | 50/72 | 4 |
| JWD-171-17 | Yes | 5/6 | 500 | 3.8 | 0.5 | 7 | 50/72 | 4 |
| JWD-171-14 | No | 12 | 1,200 | 9.6 | 1.0 | 16 | 120 | 4 |
| JWD-171-19 | Yes | 12 | 1,200 | 9.6 | 1.0 | 16 | 120 | 4 |
| JWD-171-15 | No | 24 | 2,200 | 19.2 | 2.0 | 40 | 262 | 4 |
| JWD-171-20 | Yes | 24 | 2,200 | 19.2 | 2.0 | 40 | 262 | 4 |
| JWD (DIP units) with 1 Form C (SPDT) contacts rated 3W max. | | | | | | | | |
| JWD-172-1 | No | 5/6 | 200 | 3.8 | 0.5 | 12 | 125/180 | 5 |
| JWD-172-5 | Yes | 5/6 | 200 | 3.8 | 0.5 | 12 | 125/180 | 5 |
| JWD-172-3 | No | 12 | 500 | 9.6 | 1.0 | 19 | 288 | 5 |
| JWD-172-7 | Yes | 12 | 500 | 9.6 | 1.0 | 19 | 288 | 5 |
| JWD-172-4 | No | 24 | 2,200 | 19.2 | 2.0 | 38 | 262 | 5 |
| JWD-172-8 | Yes | 24 | 2,200 | 19.2 | 2.0 | 38 | 262 | 5 |
| JWD-172-155 | No | 5/6 | 200 | 3.8 | 0.5 | 12 | 125/180 | 6 |
| JWD-172-159 | Yes | 5/6 | 200 | 3.8 | 0.5 | 12 | 125/180 | 6 |
| JWD-172-157 | No | 12 | 1,000 | 9.6 | 1.0 | 19 | 144 | 6 |
| JWD-172-161 | Yes | 12 | 1,000 | 9.6 | 1.0 | 19 | 144 | 6 |
| JWD-172-158 | No | 24 | 2,150 | 19.2 | 2.0 | 38 | 268 | 6 |
| JWD-172-162 | Yes | 24 | 2,150 | 19.2 | 2.0 | 38 | 268 | 6 |
| JWS (SIP units) with 1 Form A (SPST-NO) contacts rated 10W max. | | | | | | | | |
| JWS-117-1 | No | 5 | 500 | 3.8 | 0.5 | 16 | 50 | 7 |
| JWS-117-6 | Yes | 5 | 500 | 3.8 | 0.5 | 16 | 50 | 7 |
| JWS-117-3 | No | 12 | 530 | 9.6 | 1.0 | 19 | 272 | 7 |
| JWS-117-8 | Yes | 12 | 530 | 9.6 | 1.0 | 19 | 272 | 7 |
| JWS-117-13 | No | 12 | 1,850 | 9.6 | 1.0 | 30 | 78 | 7 |
| JWS-117-18 | Yes | 12 | 1,850 | 9.6 | 1.0 | 30 | 78 | 7 |
| JWS-117-5 | No | 24 | 2,150 | 19.2 | 2.0 | 36 | 268 | 7 |
| JWS-117-10 | Yes | 24 | 2,150 | 19.2 | 2.0 | 36 | 268 | 7 |

Outline Dimensions



Note: Magnetic shielding may be required between relays when they are placed in very close proximity to one another.

Specifications and availability subject to change.

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