

**1a/1c/2a/2c/5A/10A  
power relays  
for power supply**

# JW RELAYS



**RoHS compliant**

Protective construction: Flux-resistant type/Sealed type

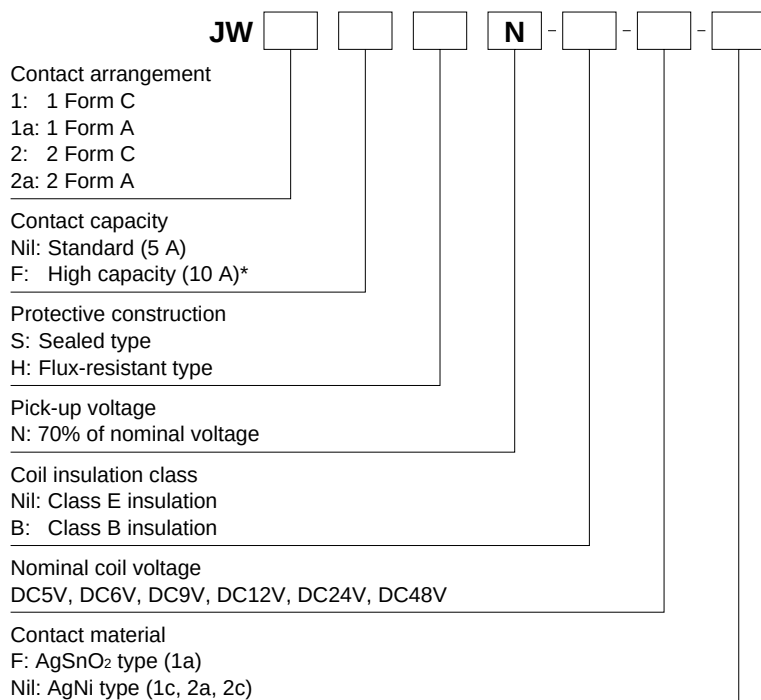
### FEATURES

1. Miniature package with universal terminal footprint
2. High dielectric withstanding for transient protection:  
10,000 V surge in  $\mu$ s between coil and contact
3. Sealed construction
4. Class B coil insulation types available
5. VDE, TÜV, SEMKO, SEV, FIMKO also approved
6. Sockets are available

### TYPICAL APPLICATIONS

1. Home appliances  
TV sets, VCR, Microwave ovens
2. Office machines  
Photocopiers, Vending machines
3. Industrial equipment  
NC machines, Robots, Temperature controllers

### ORDERING INFORMATION



\*Only for 1 Form A and 1 Form C type  
Certified by UL, CSA, VDE, SEMKO, FIMKO and SEV

TYPES

1) 1 Form A Standard (5A) type

| Nominal coil voltage | Sealed type    | Flux-resistant type |
|----------------------|----------------|---------------------|
|                      | Part No.       | Part No.            |
| 5V DC                | JW1aSN-DC5V-F  | JW1aHN-DC5V-F       |
| 6V DC                | JW1aSN-DC6V-F  | JW1aHN-DC6V-F       |
| 9V DC                | JW1aSN-DC9V-F  | JW1aHN-DC9V-F       |
| 12V DC               | JW1aSN-DC12V-F | JW1aHN-DC12V-F      |
| 24V DC               | JW1aSN-DC24V-F | JW1aHN-DC24V-F      |
| 48V DC               | JW1aSN-DC48V-F | JW1aHN-DC48V-F      |

Standard packing: Carton 100 pcs. Case 500 pcs.

2) 1 Form A High capacity (10 A) type

| Nominal coil voltage | Sealed type     | Flux-resistant type |
|----------------------|-----------------|---------------------|
|                      | Part No.        | Part No.            |
| 5V DC                | JW1aFSN-DC5V-F  | JW1aFHN-DC5V-F      |
| 6V DC                | JW1aFSN-DC6V-F  | JW1aFHN-DC6V-F      |
| 9V DC                | JW1aFSN-DC9V-F  | JW1aFHN-DC9V-F      |
| 12V DC               | JW1aFSN-DC12V-F | JW1aFHN-DC12V-F     |
| 24V DC               | JW1aFSN-DC24V-F | JW1aFHN-DC24V-F     |
| 48V DC               | JW1aFSN-DC48V-F | JW1aFHN-DC48V-F     |

Standard packing: Carton 100 pcs. Case 500 pcs.

3) 1 Form C Standard (5A) type

| Nominal coil voltage | Sealed type | Flux-resistant type |
|----------------------|-------------|---------------------|
|                      | Part No.    | Part No.            |
| 5V DC                | JW1SN-DC5V  | JW1HN-DC5V          |
| 6V DC                | JW1SN-DC6V  | JW1HN-DC6V          |
| 9V DC                | JW1SN-DC9V  | JW1HN-DC9V          |
| 12V DC               | JW1SN-DC12V | JW1HN-DC12V         |
| 24V DC               | JW1SN-DC24V | JW1HN-DC24V         |
| 48V DC               | JW1SN-DC48V | JW1HN-DC48V         |

Standard packing: Carton 100 pcs. Case 500 pcs.

4) 1 Form C High capacity (10 A) type

| Nominal coil voltage | Sealed type  | Flux-resistant type |
|----------------------|--------------|---------------------|
|                      | Part No.     | Part No.            |
| 5V DC                | JW1FSN-DC5V  | JW1FHN-DC5V         |
| 6V DC                | JW1FSN-DC6V  | JW1FHN-DC6V         |
| 9V DC                | JW1FSN-DC9V  | JW1FHN-DC9V         |
| 12V DC               | JW1FSN-DC12V | JW1FHN-DC12V        |
| 24V DC               | JW1FSN-DC24V | JW1FHN-DC24V        |
| 48V DC               | JW1FSN-DC48V | JW1FHN-DC48V        |

Standard packing: Carton 100 pcs. Case 500 pcs.

5) 2 Form A Standard (5A) type

| Nominal coil voltage | Sealed type  | Flux-resistant type |
|----------------------|--------------|---------------------|
|                      | Part No.     | Part No.            |
| 5V DC                | JW2aSN-DC5V  | JW2aHN-DC5V         |
| 6V DC                | JW2aSN-DC6V  | JW2aHN-DC6V         |
| 9V DC                | JW2aSN-DC9V  | JW2aHN-DC9V         |
| 12V DC               | JW2aSN-DC12V | JW2aHN-DC12V        |
| 24V DC               | JW2aSN-DC24V | JW2aHN-DC24V        |
| 48V DC               | JW2aSN-DC48V | JW2aHN-DC48V        |

Standard packing: Carton 100 pcs. Case 500 pcs.

6) 2 Form C Standard (5A) type

| Nominal coil voltage | Sealed type | Flux-resistant type |
|----------------------|-------------|---------------------|
|                      | Part No.    | Part No.            |
| 5V DC                | JW2SN-DC5V  | JW2HN-DC5V          |
| 6V DC                | JW2SN-DC6V  | JW2HN-DC6V          |
| 9V DC                | JW2SN-DC9V  | JW2HN-DC9V          |
| 12V DC               | JW2SN-DC12V | JW2HN-DC12V         |
| 24V DC               | JW2SN-DC24V | JW2HN-DC24V         |
| 48V DC               | JW2SN-DC48V | JW2HN-DC48V         |

Standard packing: Carton 100 pcs. Case 500 pcs.

Note: Class B coil insulation type is available.

Ex) JW1aSN-B-DC12V-F

\* Sockets available.

RATING

1. Coil data

| Nominal coil voltage | Pick-up voltage (at 20°C 68°F)            | Drop-out voltage (at 20°C 68°F)           | Nominal operating current [±10%] (at 20°C 68°F) | Coil resistance [±10%] (at 20°C 68°F) | Nominal operating power | Max. applied voltage (at 20°C 68°F)                                                        |
|----------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------------|---------------------------------------|-------------------------|--------------------------------------------------------------------------------------------|
| 5V DC                | 70%V or less of nominal voltage (Initial) | 10%V or more of nominal voltage (Initial) | 106mA                                           | 47Ω                                   | 530mW                   | 130%V of nominal voltage (at 60°C 140°F)<br><br>120%V of nominal voltage (at 85°C 185°F)*4 |
| 6V DC                |                                           |                                           | 88mA                                            | 68Ω                                   |                         |                                                                                            |
| 9V DC                |                                           |                                           | 58mA                                            | 155Ω                                  |                         |                                                                                            |
| 12V DC               |                                           |                                           | 44mA                                            | 270Ω                                  |                         |                                                                                            |
| 24V DC               |                                           |                                           | 22mA                                            | 1,100Ω                                |                         |                                                                                            |
| 48V DC               |                                           |                                           | 11mA                                            | 4,400Ω                                |                         |                                                                                            |

Note: The pick-up and drop out voltages rise approximately 0.4% for every 1°C 33.8°F given a standard ambient temperature of 20°C 68°F. Therefore, when using relays where the ambient temperature is high, please take into consideration the rise in pick-up and drop out voltages and keep the coil applied voltage within the maximum applied voltage.