



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

JW RELAYS



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 μ 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

JW				N	-		-		-	
Contact arrangement 1: 1 Form C 1a: 1 Form A 2: 2 Form C 2a: 2 Form A										
Contact capacity Nil: Standard (5 A) F: High capacity (10 A)*										
Protective construction S: Sealed type H: Flux-resistant type										
Pick-up voltage N: 70% of nominal voltage										
Coil insulation class Nil: Class E insulation B: Class B insulation										
Nominal coil voltage DC5V, DC6V, DC9V, DC12V, DC24V, DC48V										
Contact material F: AgSnO ₂ type (1a) Nil: AgNi type (1c, 2a, 2c)										

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.

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.

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.

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.

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.

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

- Operating characteristics such as ‘Operate voltage’ and ‘Release voltage’ are influenced by mounting conditions, ambient temperature, etc. Therefore, please use the relay within ± 5% of rated coil voltage.
- ‘Initial’ means the condition of products at the time of delivery.

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) 120%V of nominal voltage (at 85°C 185°F)**
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.