

## robotics switches & relays

Electromechanical relays and switches are critical in the manufacturing of robotics, ensuring precise control, automation, and safety. They are commonly used in different stages of robotics manufacturing: Power management distribution, motion control and actuation, safety, sensor and feedback systems, and automated control and sequencing.

### Electromechanical Relays

#### J102 Series



#### Contact Ratings

AgNi

3A@125VAC

5A@125VAC

3A@30VDC

5A@30VDC

AG

1A@125VAC

3A@125VAC

1A@30VDC

3A@30VDC

Contact Arrangements 1A SPST, NO  
1B SPST, NC  
1C SPDT

#### Coil Voltages

3VDC; 5VDC; 6VDC; 9VDC;  
12VDC; 24VDC

Coil Power .20W; .36W; .45W

#### J103 Series



#### Contact Ratings

0.5A@125VAC

1A@30VDC

2A@120VAC

2A@24VDC

Contact Arrangements 1C SPDT

#### Coil Voltages

3VDC; 5VDC; 6VDC; 9VDC;  
12VDC; 24VDC

Coil Power .15W; .20W

#### J105E Series



#### Contact Ratings

NO

10A@120VAC / 277VAC

5A@240VAC / 277VAC

3A@30VDC

NC

10A@120VAC

5A@240VAC

3A@30VDC

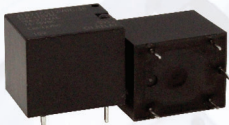
Contact Arrangements 1A SPST, NO  
1C SPDT

#### Coil Voltages

3VDC; 5VDC; 6VDC; 9VDC;  
12VDC; 18VDC; 24VDC; 48VDC

Coil Power .20W; .45W

#### J107 Series



#### Contact Ratings

15A@125VAC

10A@120VAC / 277VAC

7A@240VAC / 30VDC

20A@16VDC / 125VAC

Contact Arrangements 1A SPST, NO  
1B SPST, NC  
1C SPDT

#### Coil Voltages

J107  
3VDC; 5VDC; 6VDC; 9VDC;  
12VDC; 18VDC; 24VDC; 48VDC

J107F  
3VDC; 5VDC; 9VDC; 12VDC;  
24VDC; 48VDC

Coil Power .36W; .45W; .80W



# Electromechanical Relays

J115E, J115F & J115F 50Amp Series



Contact Arrangements 1A SPST NO  
1B SPST NC  
1C SPDT

Coil Power .60W; .90W; 1.5W; ; 2VA; 2.7VA

## Contact Ratings

J115E up to 30A  
J115F up to 40A  
J115F 50Amp up to 50A

## Coil Voltages

J115E 5VDC up to 110VDC  
J115F 5VDC up to 110VDC; 12VAC up to 277VAC  
J115F 50Amp 5VDC up to 48VDC; 24VAC up to 277VAC

# Electromechanical Switches

## Snap-Action



Electromechanical switches play crucial roles in robotics, offering reliable human-machine interfaces, safety mechanisms, and control functions.

### Snap-Actions Switches

- *Position Sensing & End Stops* — Used in robotic arms, CNC machines, and automated assembly lines to detect the position of moving parts.
- *Safety Interlocks* — Ensure mechanical components do not move beyond their intended range.
- *Obstacle Detection* — In mobile robots and automated guides vehicles (AGVs), snap-action switches act as bump sensors.

## Anti-Vandal



### Anti-Vandal Switches

- *Harsh Environment Controls* — Used in industrial and outdoor robotics due to their durability, water resistance, and resistance to impact.
- *Security & Access Control* — Prevent unauthorized access to control panels in industrial or public settings

## Tact & Key



### Tactile & Key Switches

- *User Interface & Control Panels* — Found in robotic controllers, remote interfaces, and handheld devices for direct user input.
- *Feedback Mechanisms* — Provide haptic feedback to operators controlling robotic systems.
- *Mode Selection & Calibration* — Used in calibration panels for switching between operational modes.

These switches contribute to reliability, safety, and usability in robotics, ensuring precise control, durability, and user interaction in automation and robotic applications.

CIT Relay & Switch offers all these switches and more for use in robotics industries. Contact us for more detailed information about our electromechanical switches and relays.



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CIT Relay & Switch designs and manufactures a diverse range of RoHS-compliant electromechanical relays, solid-state relays, and switches. We appreciate the opportunity to demonstrate why so many customers trust CIT Relay & Switch for exceptional quality and service.

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