

CATALOG

Thermoactuator

A thermoactuator is a small yet powerful linear actuator that provides a quiet, smooth, and robust motion, thanks to the exceptional expansion characteristics of the wax.

At iSwell, to ensure consistent and reliable product quality, each finished thermoactuator undergoes a thorough performance inspection before leaving our factory.



Benefits

- ✓ Consistent high thrust throughout the entire range of motion
- ✓ Smooth and silent plunger operation
- ✓ Outstanding durability and reliability
- ✓ Compact product size and structure
- ✓ No additional electrical protection required
- ✓ No electromagnetic interference

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✉ rob@waxmotor.com

**ISWELL AUTOCONTROL
TECHNOLOGY (YUEQING) CO., LTD.**

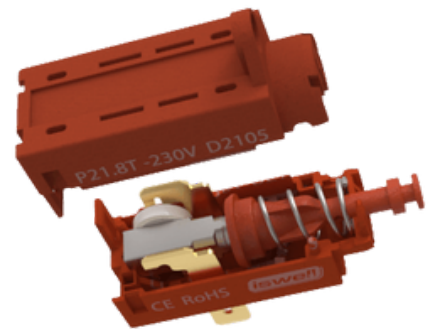
📍 No. 261, Wei 17 Road
Economic Development Zone
325600 Yueqing
Zhejiang Province, China



Working Principle

When the thermoactuator is powered, the PTC thermistor on the wax motor quickly heats up, causing the temperature-sensitive wax to melt and change from the solid to liquid state. As a result, the wax volume expands, smoothly pushing the plunger out and generating a strong force.

On the other hand, when the power supply to the thermoactuator is cut off, the wax begins to cool down and solidify. As the wax volume gradually shrinks, a return spring assists in pulling the plunger back inwards, until it returns to its original position.



Applications



Dishwasher:

- Detergent dispenser
- Automatic door opener
- Drying exhaust valve



Steam Oven:

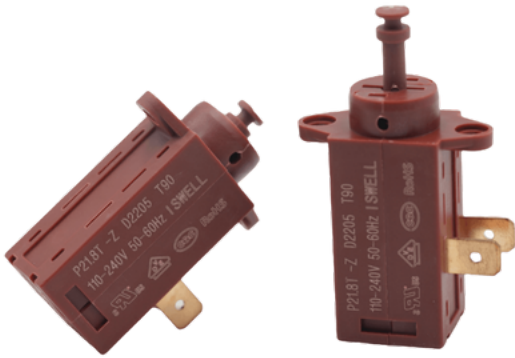
- Door lock
- Steam exhaust valve



Extractor Fan:

- Louver/grille control

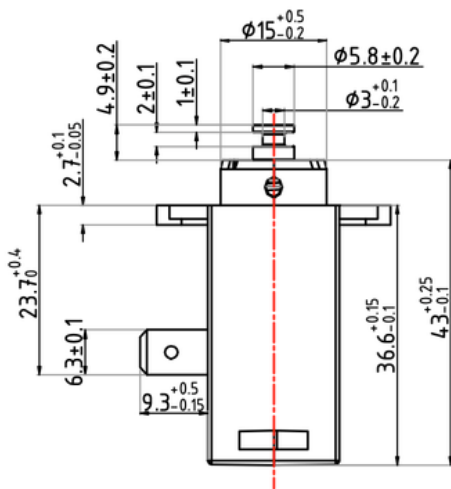
P21.8T



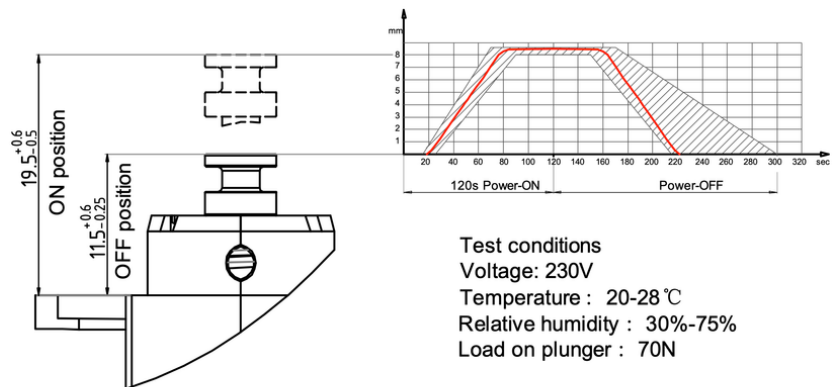
Specifications

- Type: **PUSH**
- Rated Stroke: **8mm**
- Rated Pushing Force: 70N
- Rated Pulling Force: --
- Voltage: 110-240V, 50-60Hz
- Temperature Range: -10°C ~ +90°C
- Relative Humidity: 30 ~ 95%
- Life Cycle: ≥15,000 cycles @ 70N load

Dimensions (mm)



Performance Graph

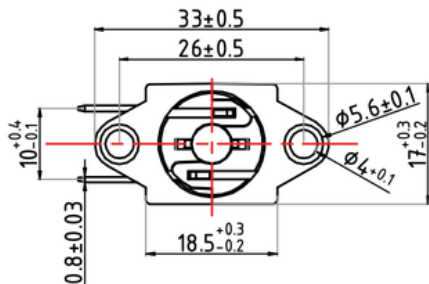


Certifications



Also Available

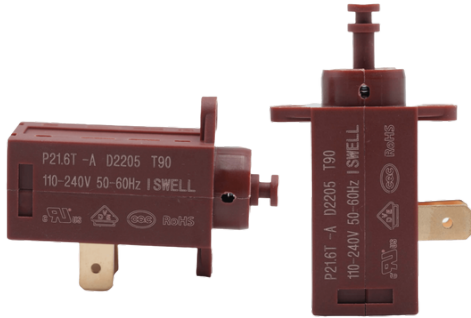
- 12/24V Voltage
- One or None Screw Mounting Holes
- Faster Working Speed
- OEM/ODM Service





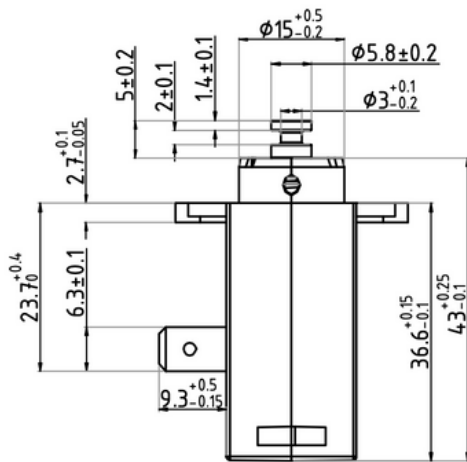
P21.6T Short Plunger

Specifications

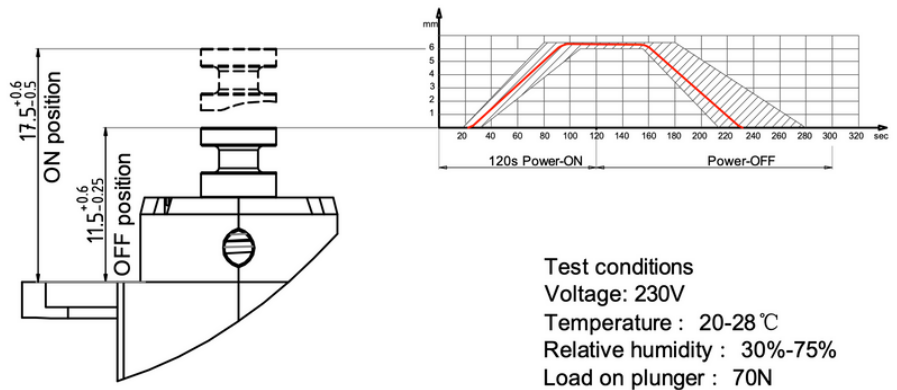


- Type: **PUSH**
- Rated Stroke: **6mm**
- Rated Pushing Force: 50N
- Rated Pulling Force: 10N
- Voltage: 110-240V, 50-60Hz
- Temperature Range: -10°C ~ +90°C
- Relative Humidity: 30 ~ 95%
- Life Cycle: ≥15,000 cycles @ 50N load

Dimensions (mm)



Performance Graph



Certifications

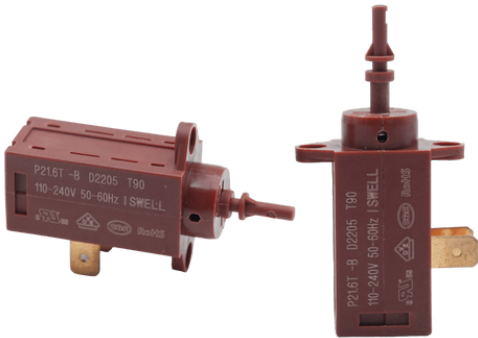


Also Available

- 12/24V Voltage
- 70N Rated Pushing Force
- One or None Screw Mounting Holes
- Faster Working Speed
- OEM/ODM Service

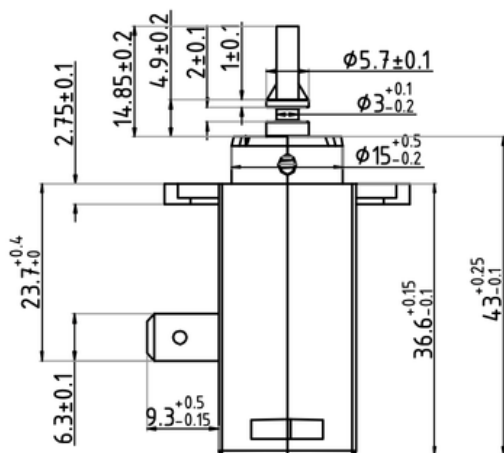
P21.6T Long Plunger

Specifications

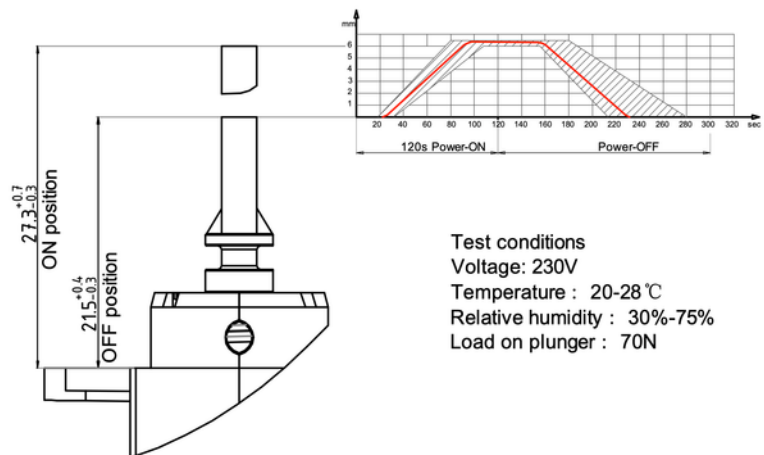


- Type: **PUSH**
- Rated Stroke: **6mm**
- Rated Pushing Force: 50N
- Rated Pulling Force: 10N
- Voltage: 110-240V, 50-60Hz
- Temperature Range: -10°C ~ +90°C
- Relative Humidity: 30 ~ 95%
- Life Cycle: ≥15,000 cycles @ 50N load

Dimensions (mm)

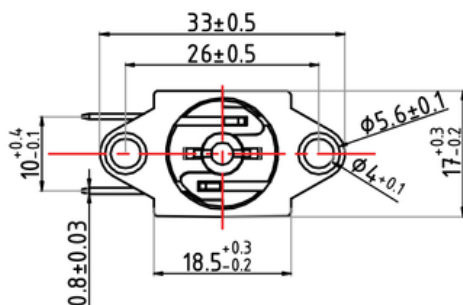


Performance Graph



Test conditions
Voltage: 230V
Temperature : 20-28 °C
Relative humidity : 30%-75%
Load on plunger : 70N

Certifications

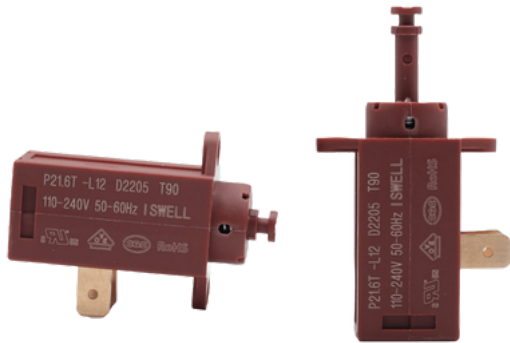


Also Available

- 12/24V Voltage
- 70N Rated Pushing Force
- One or None Screw Mounting Holes
- Faster Working Speed
- OEM/ODM Service



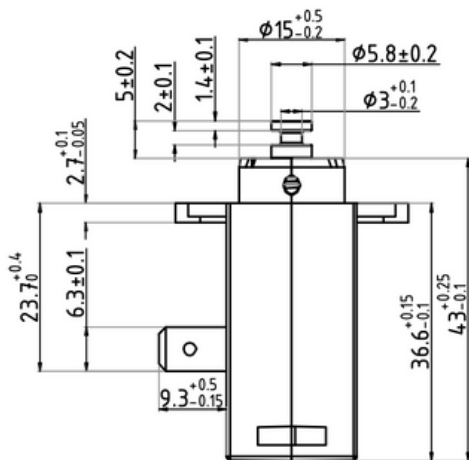
P21.6T-L12



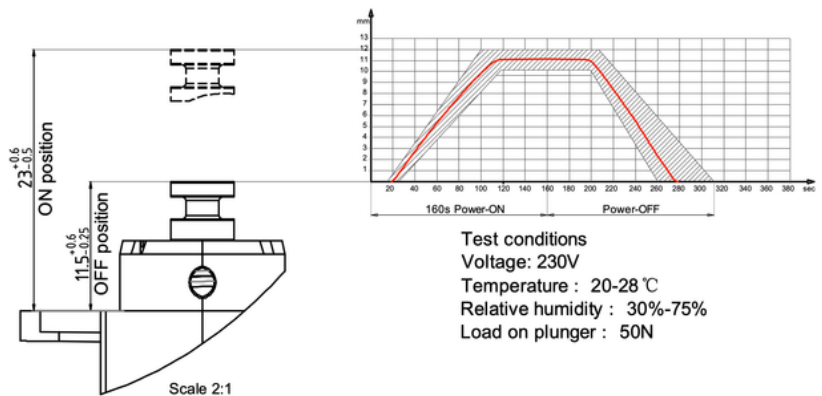
Specifications

- Type: **PUSH**
- Rated Stroke: **12mm**
- Rated Pushing Force: 50N
- Rated Pulling Force: --
- Voltage: 110-240V, 50-60Hz
- Temperature Range: -10°C ~ +90°C
- Relative Humidity: 30 ~ 95%
- Life Cycle: ≥10,000 cycles @ 50N load

Dimensions (mm)



Performance Graph



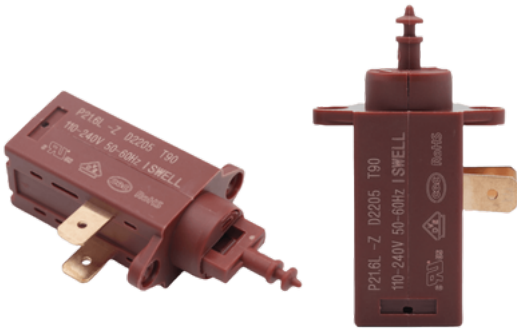
Certifications



Also Available

- 12/24V Voltage
- One or None Screw Mounting Holes
- Faster Working Speed
- OEM/ODM Service

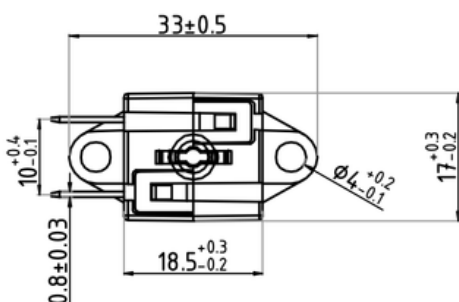
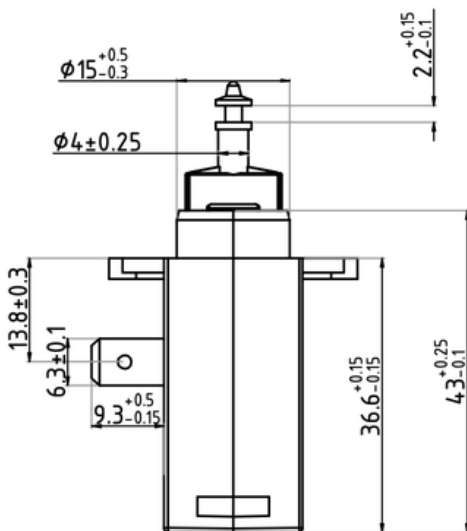
P21.6L



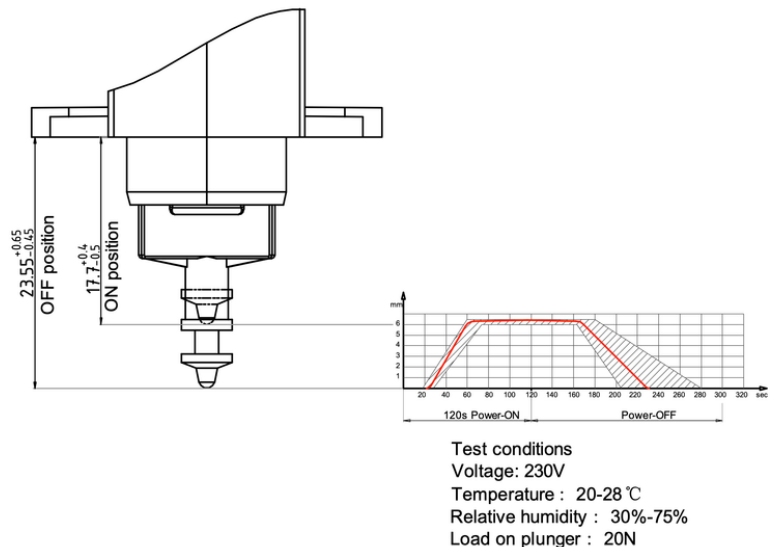
Specifications

- Type: **PULL**
- Rated Stroke: **6mm**
- Rated Pushing Force: 2N
- Rated Pulling Force: 20N
- Voltage: 110-240V, 50-60Hz
- Temperature Range: -10°C ~ +90°C
- Relative Humidity: 30 ~ 95%
- Life Cycle: ≥15,000 cycles @ 20N load

Dimensions (mm)



Performance Graph



Certifications



Also Available

- 12/24V Voltage
- One or None Screw Mounting Holes
- Faster Working Speed
- OEM/ODM Service



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