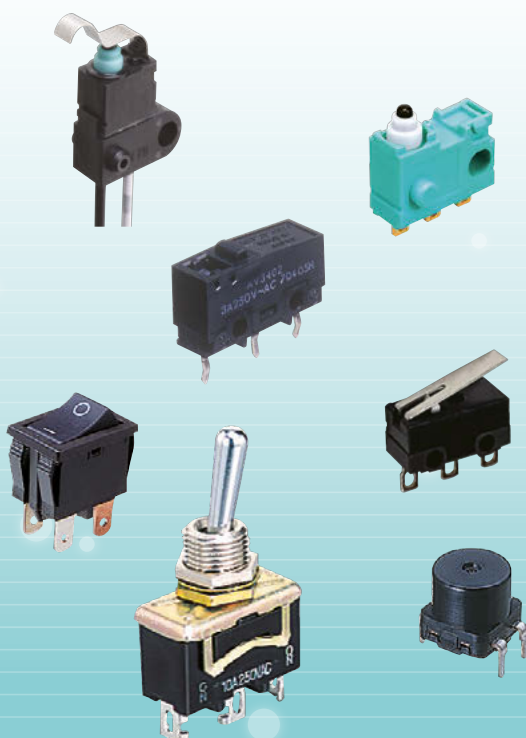


# Detection/Operation Switches

Seal Type/Non Seal Type/Fall Detection/Snap/Power Rocker

◆◆◆ SELECTION GUIDE ◆◆◆





## INDEX

---

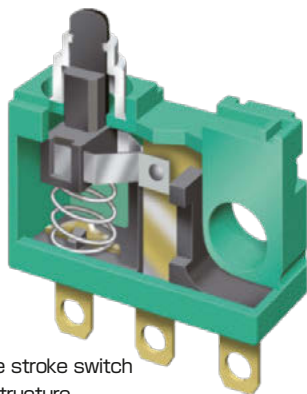
◆ Product Lineup .....	2
◆ Switches Selector Chart .....	4
◆ Operation Switches Selector Chart .....	8
◆ Application .....	12

# Switch Series Which Covers All Markets

## High Environmental Resistance Seal Switches

- High environmental resistance seal switches
- IP67 type (Immersion protected)
- Silent switch with both-sided sliding contact available\*
- Long stroke for move assembling position allowance\*

\* Turquoise Stroke Mini Switches, Turquoise Stroke Switches



Turquoise stroke switch  
Internal structure



Automotive



Cultivators



Multistory car parks



Electric carts



Refrigerators

### Turquoise Stroke Mini Switches

Resistor installed type    Terminal type    Wire lead type



### Turquoise Switches

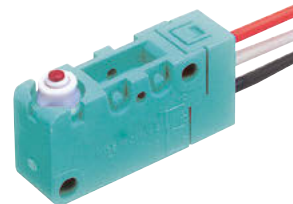
ABJ (BJ)



ABS (BS)



ABV (BV)

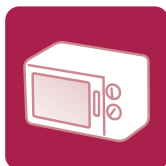


## Detection Switch Series with Plenty of Variation

- A broad product line



Air conditioners



Microwave ovens



Vending machines



Vacuum cleaners



Heaters

### AV4 (FU) Switches



### AEQ (EQ) Switches



### AH1 (FJ) Switches



### AV3/AVM3/AVT3/AVL3 (FS/FS-T) Switches



### AV6 (CS) Switches

Pin plunger



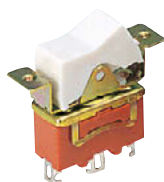
## Snap Switches

- Series includes rocker and push-button switches
- Sealed type added for use in severe environments

### T-15 Series 15 A High Snap Switches



Toggle type



Rocker type



Push-button type

### T-10 Series 10 A Snap Switches



### T-06/T-03 Series 6 A/3 A Snap Switches



## Power Rocker Switches

- High inrush current resistance is ideal for power switch of office automation equipment
- A broad product line
- Contact gap: 3mm Min.



PPC

### AJ8S (J8S) Switches

### AJ8 Switches with trip function upgraded



### AJ7 (J7) Switches

### AJ8 (J8) Switches



## Falling Detection Switches

- Contributes to safety countermeasures by detecting machine tilt



Dehumidifiers



Humidifiers



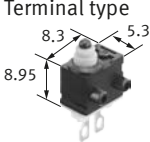
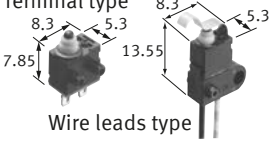
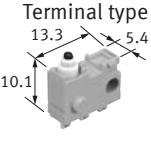







Heaters

### AHF2 (TiP) Switches

Containing a photo sensor



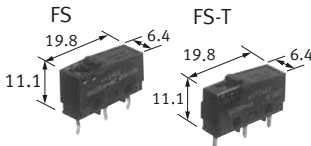
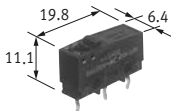







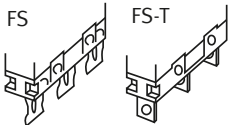
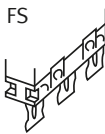
# Switches Selector Chart

Category		Turquoise Switch Series (Seal Type Switches)		
Size		—	—	—
Product name		Turquoise Stroke mini Switches (Resistor installed type)	Turquoise Stroke Mini Switches	Turquoise Stroke Switches
Part number		ASQMR	ASQM	ASQ
Configuration (Unit: mm)				
Features		<ul style="list-style-type: none"> <li>• A built-in resistor has enabled detection of disconnection and short circuit of wiring.</li> <li>• Miniaturization achieved with changing from 1 Form C to 1 Form A or 1 Form B contacts.</li> <li>• Support low level switching loads</li> <li>• Silent operation with sliding contacts</li> </ul>	<ul style="list-style-type: none"> <li>• Miniaturization achieved with changing from 1 Form C to 1 Form A or 1 Form B contacts.</li> <li>• Handles low-level switching loads</li> <li>• Silent operation construction with sliding contact</li> </ul>	<ul style="list-style-type: none"> <li>• Compact size and long stroke</li> <li>• Silent operation construction with sliding contact</li> </ul>
Rating (Resistive load)		<p>&lt;Ag plating on both sides of sliding contact&gt;</p> <ul style="list-style-type: none"> <li>• Rated power  <math>-40^{\circ}\text{C} \leq T \leq 70^{\circ}\text{C}</math> 0.50 W  <math>70^{\circ}\text{C} &lt; T \leq 75^{\circ}\text{C}</math> 0.45 W  <math>75^{\circ}\text{C} &lt; T \leq 85^{\circ}\text{C}</math> 0.40 W  (T:Environment temperature) </li> <li>• Voltage: 4.5 to 16 V DC</li> <li>• Minimum current: 1 mA</li> </ul>	<p>&lt;Ag plating on both sides of sliding contact&gt;</p> <p>1 mA 5 V DC to 50 mA 16 V DC</p>	<p>&lt;Au plating on both sides of sliding contact&gt;</p> <p>1 mA 5 V DC to 100 mA 30 V DC</p>
Operating Force (OF) Max (Pin plunger type)		1.2 N	1.2 N	1.5 N
Expected life	Mechanical (Pin plunger type)	—	—	—
	Electrical	Nominal rating load: Min. $2.0 \times 10^5$ Low-level rating load: Min. $3 \times 10^5$	Nominal rating load: Min. $1.5 \times 10^5$ Low-level rating load: Min. $3 \times 10^5$	DV 5 V 1 mA: Min. $5 \times 10^5$ DC 16 V 50 mA: Min. $5 \times 10^5$ DC 30 V 100 mA: Min. $2 \times 10^5$
Mounting pitch		5.0 mm (Terminal type) 8.3 mm (Wire leads type)	5.0 mm (Terminal type) 8.3 mm (Wire leads type)	8.3 mm (M3)
Actuator style		Pin plunger	●	●
		Hinge lever	—	—
		Hinge lever	—	—
		Hinge lever	—	—
		Simulated roller lever	—	—
		Hinge roller lever	—	—
		leaf lever	● (leaf lever, Simulated roller lever)	● (leaf lever, Simulated roller lever)
Terminal style		<ul style="list-style-type: none"> <li>• Solder terminal</li> <li>• Fork terminal</li> <li>• Wire leads (bottom)</li> </ul>	<ul style="list-style-type: none"> <li>• Slim terminal</li> <li>• Solder terminal</li> <li>• Fork terminal</li> <li>• Wire leads (bottom, right-side and left side type)</li> </ul>	<ul style="list-style-type: none"> <li>• Solder terminal</li> <li>• PC board terminal or PC angle terminal</li> <li>• Wire leads (bottom, right side and left side types)</li> </ul>
Safety standard		—	—	—
Protection grade		IP67 *With Wire leads	IP67 *With Wire leads	IP67 *With Wire leads

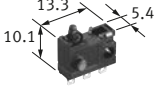

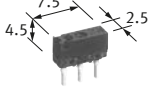
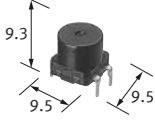







Category		Turquoise Switch Series (Seal Type Switches)		
Size		J	S	V
Product name		ABJ (BJ) Turquoise Switches	ABS (BS) Turquoise Switches	ABV (BV) Turquoise Switches
Part number		ABJ	ABS	ABV
Configuration (Unit: mm)		<p>Terminal type</p> <p>Wire leads (bottom type)</p>	<p>Terminal type</p> <p>Wire leads (bottom type)</p>	<p>Terminal type</p> <p>Wire leads</p>
Features		<ul style="list-style-type: none"> <li>J type, High sealing performance sealed switches</li> <li>Elastomer double molding technology contribute to steady sealing quality</li> </ul>	<ul style="list-style-type: none"> <li>S type, High sealing performance sealed switches</li> <li>Elastomer double molding technology contribute to steady sealing quality</li> <li>Expansion of low-level circuit type</li> </ul>	<ul style="list-style-type: none"> <li>Integral construction of body and cover, sealed switches</li> <li>Plunger section adopts ultrasonic swaging process</li> </ul>
Rating (Resistive load)		<p>&lt;AgNi alloy contact&gt;</p> <ul style="list-style-type: none"> <li>1.23 N type 1 A 125 V AC 1 A 30 V DC</li> <li>1.96 N type 2 A 125 V AC 2 A 30 V DC</li> <li>2.45 N type (Long stroke type) 1 A 125 V AC 1 A 30 V DC</li> </ul> <p>&lt;AgNi alloy+Au-clad contact&gt;</p> <ul style="list-style-type: none"> <li>1.23 N type</li> <li>1.96 N type</li> <li>2.45 N type (Long stroke type) 0.1 A 125 V AC 0.1 A 30 V DC</li> </ul> <p>■ Low-level circuit type</p> <p>5 mA 6 V DC 2 mA 12 V DC 1 mA 24 V DC</p>	<p>&lt;AgNi alloy contact&gt;</p> <ul style="list-style-type: none"> <li>2 A 125 V AC</li> <li>2 A 250 V AC</li> <li>2 A 30 V DC</li> <li>0.4 A 125 V DC</li> </ul> <p>&lt;Double layer contact: CuNi alloy+Au clad contact&gt;</p> <p>0.1 A 30 V DC</p> <p>&lt;Triple layer contact: CuNi alloy+AgNi alloy + Au-clad contact&gt;</p> <p>0.1 A 125 V AC 0.1 A 250 V AC 0.1 A 30 V DC</p> <p>■ Low-level circuit type</p> <p>5 mA 6 V DC 2 mA 12 V DC 1 mA 24 V DC</p>	<p>&lt;AgNi alloy contact&gt;</p> <ul style="list-style-type: none"> <li>0.98 N Type: 3 A 250 V AC</li> <li>1.96 N Type: 5 A 250 V AC</li> </ul> <p>&lt;AgNi alloy+Au-clad contact&gt;</p> <ul style="list-style-type: none"> <li>0.98 N Type: 1 A 250 V AC</li> <li>1.96 N Type: 3 A 250 V AC</li> </ul> <p>■ Low-level circuit type</p> <p>5 mA 6 V DC 2 mA 12 V DC 1 mA 24 V DC</p>
Operating Force (OF) Max (Pin plunger type)		1.23 N 1.96 N 2.45 N (Long stroke type)	0.98 N 1.47 N	0.98 N 1.96 N
Expected life	Mechanical (Pin plunger type)	Min. 10 <sup>5</sup>	Min. 5×10 <sup>6</sup>	Min. 5×10 <sup>6</sup>
	Electrical	AgNi alloy: Min. 3×10 <sup>4</sup> Au-clad: Min. 10 <sup>5</sup>	AgNi alloy: Min. 5×10 <sup>4</sup> Au-clad: Min. 2×10 <sup>5</sup>	Nominal rating load: Min. 10 <sup>5</sup> Low-level rating load: Min. 10 <sup>6</sup>
Mounting pitch		6.5 mm (M1.2) 4.8 mm (M2.3) 13 mm (M3)	9.5 mm (M2.3)	10.3×22.2 mm (M3)
Actuator style		Pin plunger	•	•
		Hinge lever	–	–
		Hinge lever	•	•
		Hinge lever	–	–
		Simulated roller lever	•	•
		Hinge roller lever	•	• (Short roller lever, Roller lever)
		leaf lever	•	–
Terminal style		<ul style="list-style-type: none"> <li>Solder terminal</li> <li>PC board terminal</li> <li>Wire leads (bottom, right side and left side types)</li> </ul>	<ul style="list-style-type: none"> <li>Solder terminal</li> <li># 110 quick-connect terminal</li> <li>PC board terminal or PC angle terminal</li> <li>Wire leads (bottom, right side and left side types)</li> </ul>	<ul style="list-style-type: none"> <li># 187 quick-connect terminal</li> <li>Wire leads</li> </ul>
Safety standard		–	UL/C-UL ENEC/VDE *Terminal type	UL/C-UL ENEC/VDE
Protection grade		IP67 *With Wire leads	IP67 *With Wire leads	IP67 *With Wire leads





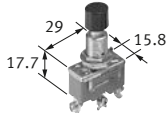




# Switches Selector Chart




Category			Snap-action switches (Non Seal Type Switches)														
Size			S		S												
Product name			AV3/AVM3/AVT3/AVL3 (FS/FS-T) Subminiature Switches		AV3 (FS) Subminiature Switches Contact gap 1 mm Type												
Part number			AV3, AVM3, AVT3, AVL3		AV3												
Configuration (Unit: mm)																	
Features			<ul style="list-style-type: none"><li>Long life version available</li><li>Au-clad double layer contacts type for low-level circuit available</li><li>There is the direction of terminal of two types</li></ul>		<ul style="list-style-type: none"><li>S type and door inter-lock switches for secondary circuit of OA equipment</li><li>Contact gap of greater than 1mm PN : AV3***G*</li><li>Superior operating position precision</li></ul>												
Rating (Resistive load)			<p>&lt;AgNi alloy contact&gt;</p> <table><tr><td>Standard version</td><td>Long life version</td></tr><tr><td>3 A 250 V AC</td><td>5 A 250 V AC</td></tr><tr><td>3 A 30 V DC</td><td>5 A 30 V DC</td></tr><tr><td>0.4 A 125 V DC</td><td>0.4 A 125 V DC</td></tr></table> <p>&lt;Double layer contact: CuNi alloy+Au-clad contact&gt; &lt;Triple layer contact: CuNi alloy+AgNi alloy+Au-clad contact&gt; 0.1 A 250 V AC (Triple layer contact) 0.1 A 30 V DC (Low-level circuit type) 1 to 100 mA, 5 to 30 V DC (Double layer contact) 1 to 100 mA 5 to 250 V AC (Triple layer contact)</p> <p>■ Low-level circuit type</p> <table><tr><td>5 mA 6 V DC</td></tr><tr><td>2 mA 12 V DC</td></tr><tr><td>1 mA 24 V DC</td></tr></table>		Standard version	Long life version	3 A 250 V AC	5 A 250 V AC	3 A 30 V DC	5 A 30 V DC	0.4 A 125 V DC	0.4 A 125 V DC	5 mA 6 V DC	2 mA 12 V DC	1 mA 24 V DC	<p>&lt;AgNi alloy contact&gt;</p> <p>3 A 30 V DC</p>	
Standard version	Long life version																
3 A 250 V AC	5 A 250 V AC																
3 A 30 V DC	5 A 30 V DC																
0.4 A 125 V DC	0.4 A 125 V DC																
5 mA 6 V DC																	
2 mA 12 V DC																	
1 mA 24 V DC																	
Operating Force (OF) Max (Pin plunger type)			<p>&lt;Standard version&gt;</p> <p>0.25 N (Au-clad contact only)</p> <p>0.49 N</p> <p>0.98 N</p> <p>&lt;Long life version&gt;</p> <p>1.47 N</p>		<p>1.47 N</p>												
Expected life	Mechanical (Pin plunger type)		Standard version: Min. 5×10 <sup>5</sup> Long life version: Min. 3×10 <sup>7</sup>		Min.5×10 <sup>5</sup>												
	Electrical		AgNi alloy contact: Min. 5×10 <sup>4</sup> Au-clad contact: Min. 2×10 <sup>5</sup>		Min.10 <sup>4</sup>												
Mounting pitch			9.5 mm (M2.3)		9.5 mm (M2.3)												
Actuator style		Pin plunger	●	●	●												
		Hinge lever	●	●	—												
		Hinge lever	●	●	●												
		Hinge lever	●	●	—												
		Simulated roller lever	●	●	●												
		Hinge roller lever	●	●	●												
		leaf lever	—	—	—												
Teminal style			<ul style="list-style-type: none"><li>Solder terminal</li><li>PC board terminal</li><li># 110 quick-connect terminal</li></ul>  <p>(AV3, AVM3) (AVT3, AVL3)</p>		<ul style="list-style-type: none"><li>Solder terminal</li><li>PC board terminal</li><li># 110 quick-connect terminal</li></ul> 												
Safety standard			UL/C-UL ENEC/VDE		UL/C-UL ENEC/VDE TÜV												
Protection grade			IP40		IP40												










Category		Snap-action switches (Non Seal Type Switches)			Fall Detection Switch
Size		Q	J	U	—
Product name		AEQ (EQ) Subminiature Switches	AH1 (FJ) Miniature Switches	AV4 (FU) Miniature Switches	AHF2 (TiP) Switches
Part number		AEQ1	AH1	AV4	AHF2
Configuration (Unit: mm)					
Features		<ul style="list-style-type: none"> <li>Handles low level load 0.1mA at 3 V DC to 100 mA 30 V DC</li> <li>Same size as J type and long stroke. For pin plunger type, it maintains an O.T. (Over Travel) with over 2.2 mm on the NO side and over 2.5 mm on the NC side.</li> <li>Contact force does not depend on the operation stroke.</li> <li>Silent operation construction with sliding contact</li> </ul>	<ul style="list-style-type: none"> <li>2.0 mm mounting hole type (with stand off) available</li> <li>General-purpose small screws can be used.</li> <li>Soldering and flux-resistant construction</li> <li>Flat terminal shape</li> <li>Lineup includes 1 Form A and 1 Form B types</li> </ul>	<ul style="list-style-type: none"> <li>Mechanical long life of 300,000 operations minimum</li> <li>Lineup includes a type with mounting holes</li> </ul>	<ul style="list-style-type: none"> <li>Small, highly reliable TiP detection switches containing a photo sensor</li> <li>The contact form is equivalent normally closed contacts</li> </ul>
Rating (Resistive load)		0.1 mA 3 V DC to 100 mA 30 V DC	<AgNi alloy contact> <ul style="list-style-type: none"> <li>0.74 N Type 1 A 125 V AC 1 A 30 V DC</li> <li>1.47N Type 3 A 125 V AC 2 A 30 V DC</li> </ul> <AgNi alloy+Au-clad contact> <ul style="list-style-type: none"> <li>0.1 A 125 V AC</li> <li>0.1 A 30 V DC</li> </ul> ■ Low-level circuit type <ul style="list-style-type: none"> <li>5 mA 6 V DC</li> <li>2 mA 12 V DC</li> <li>1 mA 24 V DC</li> </ul>	<Ag plated contact> 0.5 A 30 V DC  <Au plated contact> 0.1 A 30 V DC	Photo transistor
Operating Force (OF) Max (Pin plunger type)		1.2 N	0.74 N 1.47 N	0.98 N	Operation angle: 25 to 60 degrees
Expected life	Mechanical (Pin plunger type)	—	0.74N: Min. 10 <sup>6</sup> 1.47N: Min. 5×10 <sup>5</sup>	Min. 3×10 <sup>5</sup>	Min. 10 <sup>5</sup>
	Electrical	DC 3V 0.1 mA: Min. 2×10 <sup>5</sup> CD 30 V 100 mA: Min. 10 <sup>5</sup>	AgNi alloy contact: Min. 3×10 <sup>4</sup> Au-clad contact: Min. 10 <sup>5</sup>	Ag plated contact: Min. 2×10 <sup>4</sup> Au plated contact: Min. 2×10 <sup>5</sup>	Min. 10 <sup>5</sup> (Adaptive circuit)
Mounting pitch		8.3 mm (M3)	9.5 mm (M2.3)	4 mm (M1.4)	—
Actuator style		Pin plunger	●	●	—
		Hinge lever	—	—	—
		Hinge lever	—	●	—
		Hinge lever	—	—	—
		Simulated roller lever	—	●	—
		Hinge roller lever	—	—	—
		leaf lever (Leaf lever, Simulated leaf lever)	—	—	—
Terminal style		<ul style="list-style-type: none"> <li>Solder terminal</li> <li>PC board terminal</li> </ul>	<ul style="list-style-type: none"> <li>Self-standing PC board terminal</li> <li>Straight PC board terminal</li> <li>Solder terminal</li> <li>Right angle terminal</li> <li>Left angle terminal</li> </ul>	<ul style="list-style-type: none"> <li>Solder terminal</li> <li>PC board terminal(straight terminal)</li> <li>Right angle terminal</li> <li>Left angle terminal</li> </ul>	<ul style="list-style-type: none"> <li>PC board terminal</li> </ul>
Safety standard		—	UL/C-UL	—	—
Protection grade		IP40	IP40	IP40	IP40

# Operation Switches Selector Chart

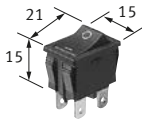





Category	Snap Switches																																														
Product name	T-15 Series 15 A high snap switches Toggle type		T-15 Series 15 A high snap switches Rockert type		T-15 Series 15 A high snap switches Pushbutton type																																										
Part number	WD1		WDR1		WDB1																																										
Configuration					  * with color cap installed (sold separately)																																										
Features	<div>• Series includes rocker and push-button switches</div> <div>• Sealed type available for use in different environments.</div> <div>* These switches are only for Industrial use. Do not use any other applications. (ex. home use)</div>																																														
Rating (Resistive load)	<div>• 15 A 250 V AC</div> <div>• 0.5 A 250 V DC</div> <div>• 0.9 A 125 V DC</div> <div>• 15 A 30 V DC</div>			<Momentary> 10 A 250 V AC 0.4 A 250 V DC 0.8 A 125 V DC 8 A 30 V DC	<Alternate> 15 A 250 V AC 0.5 A 250 V DC 0.9 A 125 V DC 15 A 30 V DC																																										
Protection grade	<table><tr><th rowspan="2"></th><th colspan="3">Outer side of the panel</th><th colspan="3">Inner side of the panel</th></tr><tr><th>Toggle type</th><th>Rocker type</th><th>Pushbutton type</th><th>Toggle type</th><th>Rocker type</th><th>Pushbutton type</th></tr><tr><td>Standard type +with rubber cap</td><td>IP54</td><td>–</td><td>–</td><td>IP40</td><td>–</td><td>–</td></tr><tr><td>Panel sealed type</td><td>IP67</td><td>IP64</td><td>IP67</td><td>IP40</td><td>IP40</td><td>IP40</td></tr><tr><td>Terminal sealed type</td><td>IP67</td><td>IP64</td><td>–</td><td>IP60</td><td>IP60</td><td>–</td></tr><tr><td>Wire leads sealed type</td><td>IP67</td><td>IP64</td><td>–</td><td>IP67</td><td>IP67</td><td>–</td></tr></table>							Outer side of the panel			Inner side of the panel			Toggle type	Rocker type	Pushbutton type	Toggle type	Rocker type	Pushbutton type	Standard type +with rubber cap	IP54	–	–	IP40	–	–	Panel sealed type	IP67	IP64	IP67	IP40	IP40	IP40	Terminal sealed type	IP67	IP64	–	IP60	IP60	–	Wire leads sealed type	IP67	IP64	–	IP67	IP67	–
	Outer side of the panel			Inner side of the panel																																											
	Toggle type	Rocker type	Pushbutton type	Toggle type	Rocker type	Pushbutton type																																									
Standard type +with rubber cap	IP54	–	–	IP40	–	–																																									
Panel sealed type	IP67	IP64	IP67	IP40	IP40	IP40																																									
Terminal sealed type	IP67	IP64	–	IP60	IP60	–																																									
Wire leads sealed type	IP67	IP64	–	IP67	IP67	–																																									
Mechanical life	Standard type  ■ 1-pole and 2-pole Min. 10 <sup>5</sup>  ■ 3-pole and 4-pole Min. 8.5×10 <sup>4</sup>	Panel sealed type Terminal sealed type Wire leads sealed type  ■ Min. 5×10 <sup>4</sup> ON-OFF ON-ON ON-OFF-ON  ■ Min. 3×10 <sup>4</sup> ON-(ON) (ON)-OFF-(ON) ON-OFF-(ON)	Min. 3×10 <sup>4</sup>		Min. 3×10 <sup>4</sup>																																										
Electrical life	■ Standard and Panel sealed type Min. 3×10 <sup>4</sup> ■ Sealed type Min. 1.5×10 <sup>4</sup>		■ Standard type Min. 3×10 <sup>4</sup> ■ Panel sealed and Sealed type Min. 10 <sup>4</sup>		Min. 10 <sup>4</sup>																																										
Teminal style	• 250 Quick-connect teminal • Solder terminal • Screw terminal • Wire lead type		• Solder terminal • Screw terminal • Wire lead type		• Solder terminal • Screw terminal																																										
Safety standard	–		–		–																																										
Mounting method *1			<Standard type> 	<Sealed type> 																																											




	Mounting panel with round holes	Snap-in mounting into panel with square holes	Screw mounting panel with square holes
*1: Mounting method			

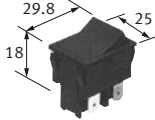

Category	Snap Switches		
Product name	T-10 Series 10A Snap switches	T-06/T-03 Series 6A/3A Snap switches	
Part number	WD1*31F	WD1**1F	
Configuration			
Features	<ul style="list-style-type: none"><li>• Capable of high capacity switching (10 A 250 V AC and 15 A 125 V AC)</li><li>• Terminals constructed for easy implementation</li></ul> <p>* These switches are only for Industrial use. Do not use any other applications. (ex. home use)</p>	<ul style="list-style-type: none"><li>• Depth of 18.6 mm saves space</li></ul> <p>* These switches are only for Industrial use. Do not use any other applications. (ex. home use)</p>	
Rating (Resistive load)	10 A 250 V AC 15 A 125 V AC 8 A 30 V DC 0.8 A 125 V DC 0.4 A 250 V DC	<6A Snap switches> 6 A 125 V AC 6 A 30 V DC 3 A 250 V AC	<3A Snap switches> 3 A 125 V AC 2 A 250 V AC
Protection grade	IP40	IP40	
Mechanical life	Min. 10 <sup>5</sup>	Min. 5×10 <sup>4</sup>	
Electrical life	Min. 3×10 <sup>4</sup> (rated load) (10 cpm)	<6A Snap switches> Min. 3×10 <sup>4</sup> (rated load) (10 cpm)	<6A Snap switches> Min. 10 <sup>4</sup> (rated load) (10 cpm)
Teminal style	• Solder terminal	• Solder terminal	
Safety standard	—	—	
Mounting method *1			




	Mounting panel with round holes	Snap-in mounting into panel with square holes	Screw mounting panel with square holes
*1: Mounting method			

# Operation Switches Selector Chart

Category	Power Rocker Switches		
Product name	AJ7 (J7) switches	AJ8 (J8) switches	AJ8S (J8S) switches
Part number	AJ7	AJ8	AJ8S
Configuration			
Features	<ul style="list-style-type: none"> <li>• High inrush current resistance is ideal for power switches of office automation equipment.</li> <li>• Operation that only requires a light touch</li> <li>• A broad product line (TV-5 rating type available)</li> </ul>	<ul style="list-style-type: none"> <li>• Power rocker switches for safety requirements.</li> <li>• High inrush current resistance is ideal for Power switch of office automation equipment.</li> <li>• A broad product line (TV-8 rating type added to lineup)</li> </ul>	<ul style="list-style-type: none"> <li>• Incorporates a contact for low level circuit</li> <li>• Power switches for safety requirements.</li> <li>• All versions comply with ClassII EN61058-1 insulation grade. Insulation distance: Min. 8mm (Power contact section)</li> <li>• Contact gap: Min. 3mm (Power contact section)</li> <li>• Agency Standard approved UL/C-UL, TÜV</li> <li>• High inrush current resistance is ideal for power switches of office automation equipment.</li> <li>• Operation that only requires a light touch</li> </ul>
Rating (Resistive load)	<ul style="list-style-type: none"> <li>• 6 A type 6 A 250 V AC</li> <li>• 10 A type 10 A 250 V AC</li> </ul>	16 A 250 V AC	<div>&lt;Power section&gt; 16 A 250 V AC</div> <div>&lt;Signal section&gt; 10 mA 5 V DC</div>
Protection grade	IP40	IP40	IP40
Mechanical life	Min. 5×10 <sup>4</sup>	Min. 5×10 <sup>4</sup>	Min. 5×10 <sup>4</sup>
Electrical life	Min. 10 <sup>4</sup>	Min. 10 <sup>4</sup>	Min. 10 <sup>4</sup>
Terminal style	<ul style="list-style-type: none"> <li>• 187 Quick-connect terminal</li> <li>• Soldering terminal</li> <li>• PC board terminal</li> <li>• PC board right angle terminal</li> <li>• PC board left angle terminal</li> </ul>	<ul style="list-style-type: none"> <li>• 250 Quick-connect terminal</li> <li>• Soldering terminal</li> <li>• PC board terminal</li> <li>• PC board right angle terminal</li> <li>• PC board left angle terminal</li> </ul>	<ul style="list-style-type: none"> <li>• 250 Quick-connect terminal</li> <li>* NO5, NO6 terminal: CT terminal</li> </ul>
Safety standard	UL/C-UL ENEC/VDE	UL/C-UL ENEC/VDE	UL/C-UL TÜV
Mounting method *1			

	Mounting panel with round holes	Snap-in mounting into panel with square holes	Screw mounting panel with square holes
*1: Mounting method			

Category	Power Rocker Switches	
Product name	J8 switches with trip function	
Part number	AJ8R	
Configuration		
Features	<ul style="list-style-type: none"> <li>• CT terminal adopted for coil terminal</li> <li>• Long life</li> <li>• Assures excellent ability to withstand inrush current when used to turn a power supply on/off.</li> </ul>	
Rating (Resistive load)	16 A 125 V AC 10 A 250 V AC	
Protection grade	IP40	
Mechanical life	Min. 5×10 <sup>4</sup>	
Electrical life	<Manual operation> Min. 10 <sup>4</sup>	<Coil operation> Min. 10 <sup>3</sup> Min. 5×10 <sup>4</sup> (5 A 125 V AC)
Terminal style	<ul style="list-style-type: none"> <li>• 250 Quick-connect terminal</li> <li>* NO5, NO6 terminal: CT terminal</li> </ul>	
Safety standard	UL/C-UL ENEC/VDE	
Mounting method *1		

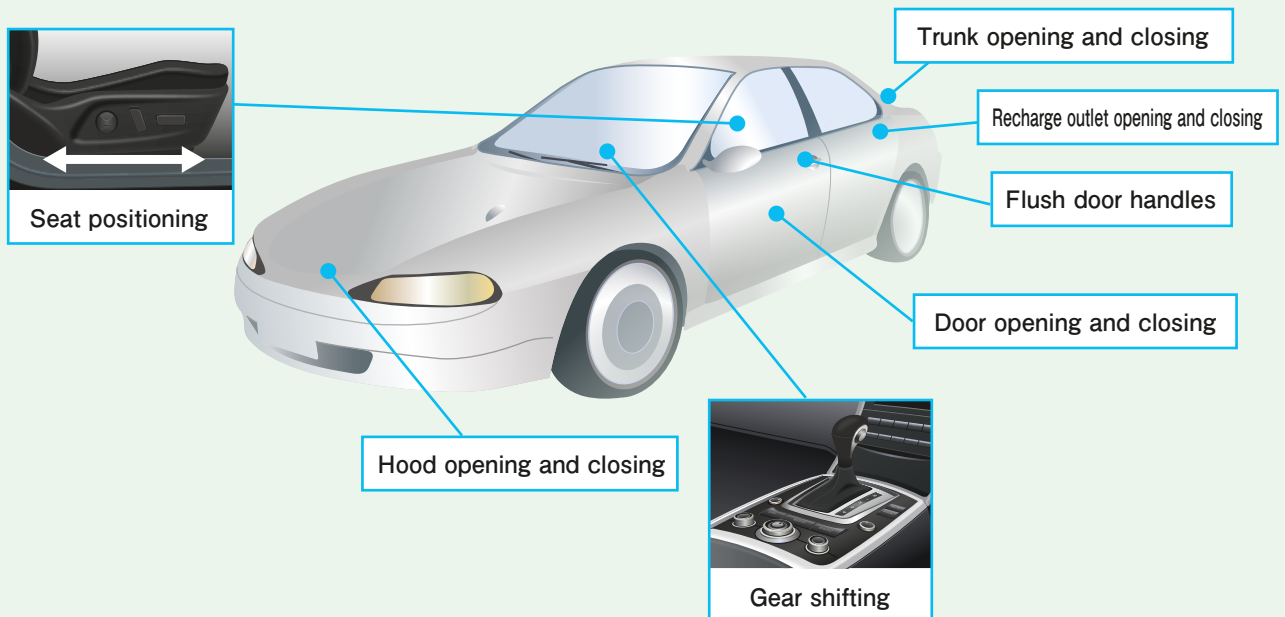
	Mounting panel with round holes	Snap-in mounting into panel with square holes	Screw mounting panel with square holes
*1: Mounting method			

# ■ Application ■

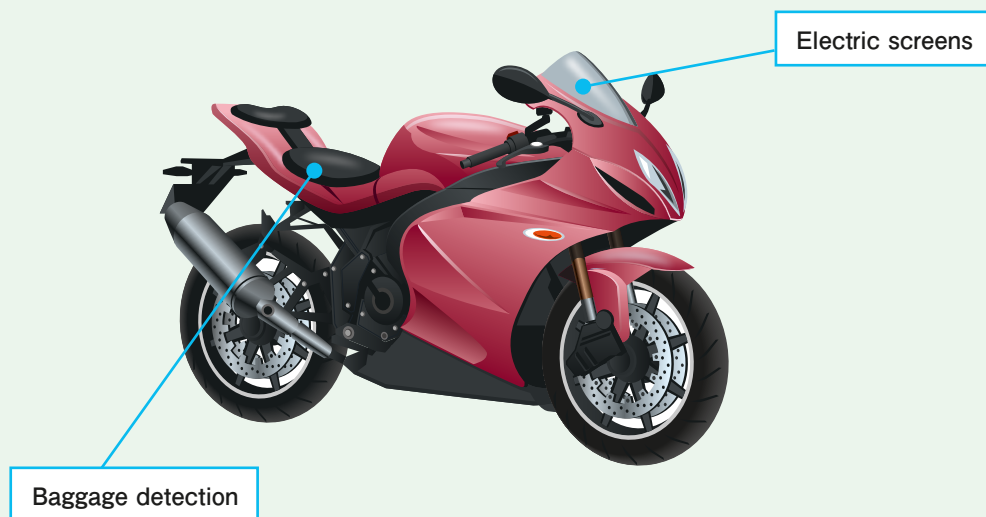
## Switches

- Automotive devices
- Electrical appliances
- Caregiving
- Security
- Industry
- OA equipment

## Automotive



## Motorcycles



Turquoise Stroke Mini Switches  
Resistor installed type

ASQMR



Disconnection · Short circuit detect  
Small size, IP67

Turquoise stroke  
mini switches

ASQM



Turquoise stroke  
switches

ASQ



ABJ (BJ)  
Turquoise switches

ABJ



ABS (BS)  
Turquoise switches

ABS



AV6 (CS) switches

AV6

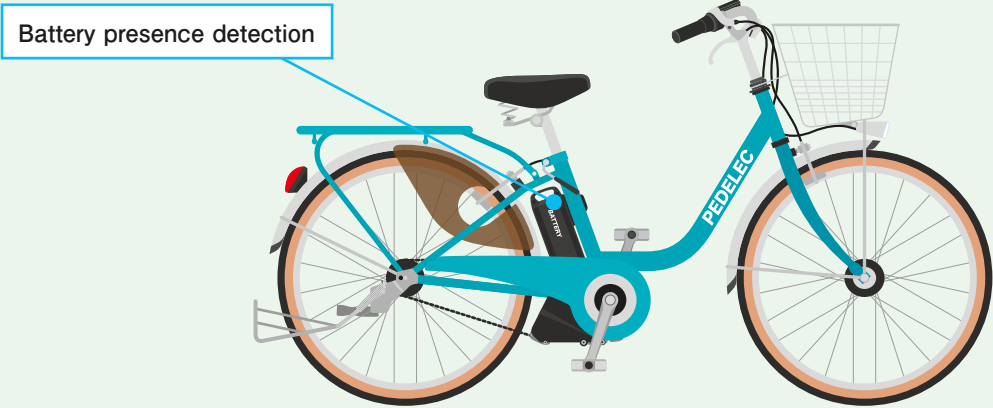


Dust and water proofing (IP67)

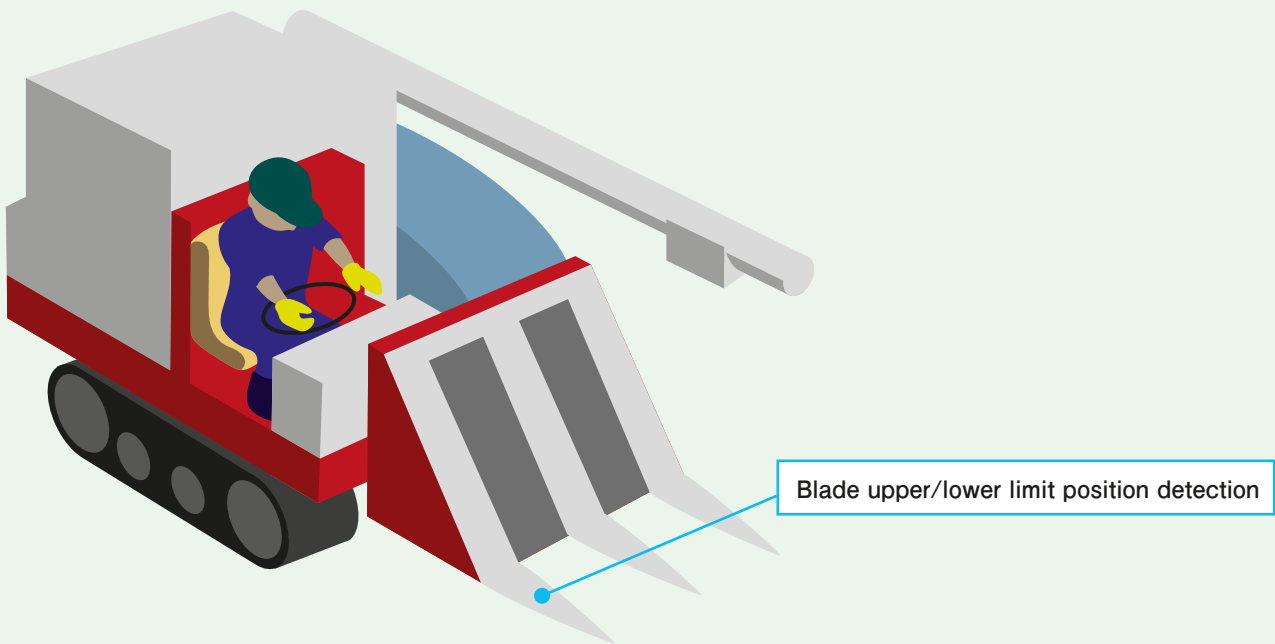
Low profile and workability  
High capacity








E-bikes

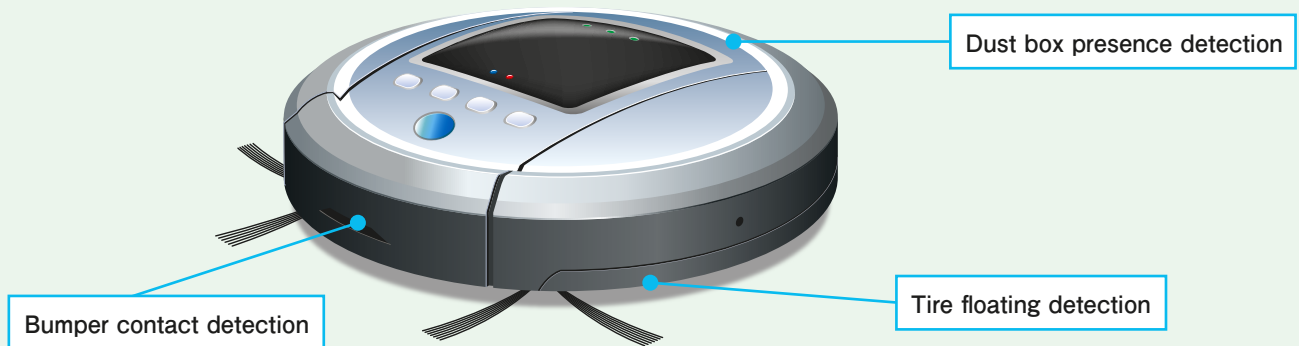


Combines



Turquoise stroke mini switches	Turquoise stroke switches	ABJ (BJ) Turquoise switches	ABS (BS) Turquoise switches	ABV (BV) Turquoise switches
ASQM	ASQ	ABJ	ABS	ABV
				
Dust and water proofing (IP67)				Dust and water proofing (IP67) Sturdy and high capacity

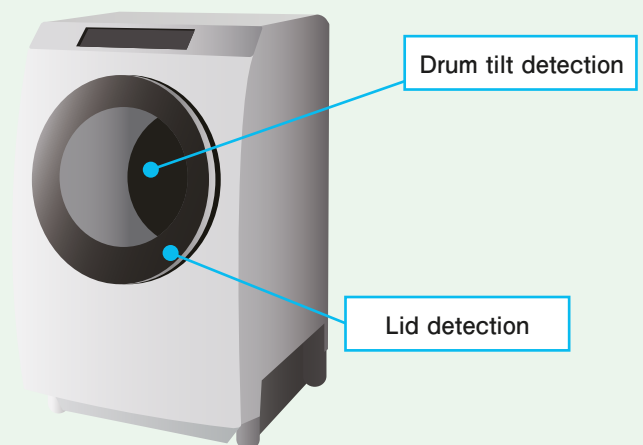
## Cleaning robots



## Vacuum cleaners

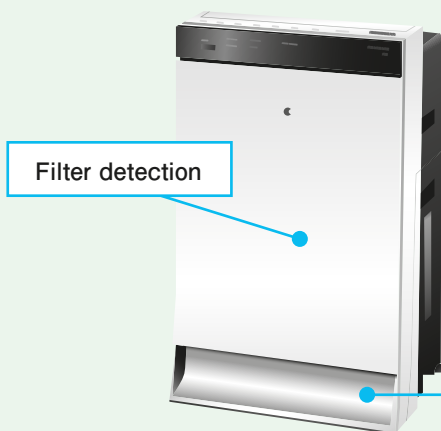


## Washing machines

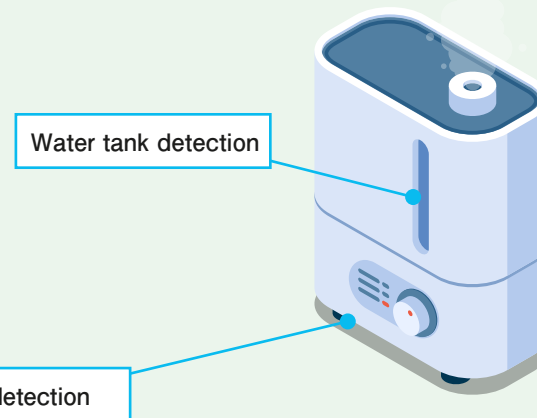


<b>AH1 (FJ) switches</b> AH1 	<b>AV3 (FS) Snap-action switches</b> AV3 	<b>AVT3 (FST) Snap-action switches</b> AVT3 	<b>AVM3 (FS) Snap-action switches</b> AVM3 	<b>AVL3 (FST) Snap-action switches</b> AVL3 
Dust			Long life	
<b>Turquoise Stroke Mini Switches Resistor installed type</b> ASQMR 	<b>Turquoise stroke mini switches</b> ASQM 	<b>Turquoise stroke switches</b> ASQ 	<b>ABJ (BJ) Turquoise switches</b> ABJ 	<b>ABS (BS) Turquoise switches</b> ABS 
Disconnection · Short circuit detect Small size, IP67		Dust and water proofing (IP67)		

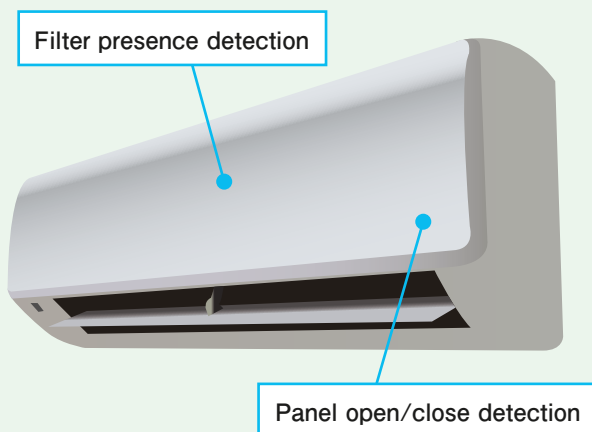
## Air cleaners



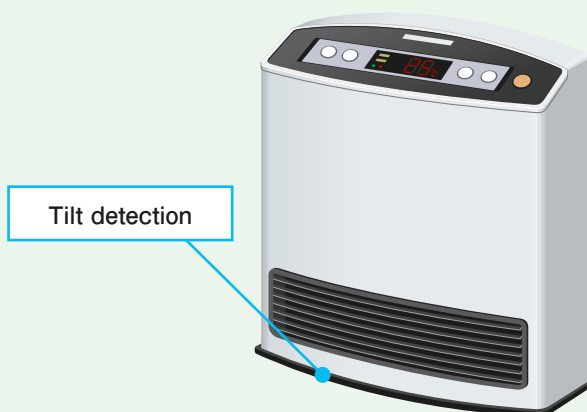
## Humidifiers







## Air conditioners









## Electric heaters and fan heaters



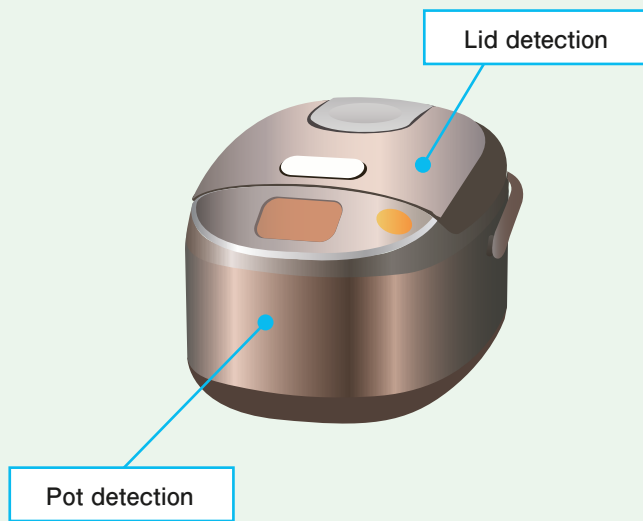
<b>AHF2 (TiP) switches</b> <b>AV6 (CS) switches</b>  	
<b>AHF2</b> 	<b>AV6</b> 
Highly reliable tilt detection	Low profile and workability

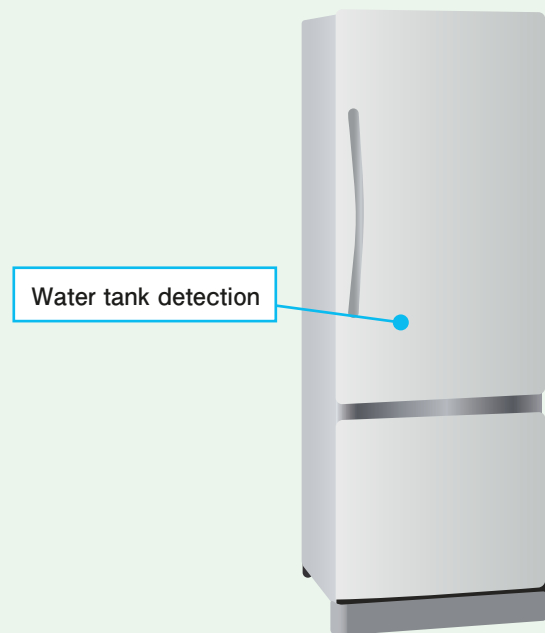
<b>Turquoise stroke mini switches</b> <b>ASQM</b> 	<b>Turquoise stroke switches</b> <b>ASQ</b> 	<b>ABJ (BJ) Turquoise switches</b> <b>ABJ</b> 	<b>ABS (BS) Turquoise switches</b> <b>ABS</b> 	<b>AH1 (FJ) switches</b> <b>AH1</b> 	<b>AV3 (FS) Snap-action switches</b> <b>AV3</b> 
---	---	---	---	--	---

Dust and water proofing (IP67)

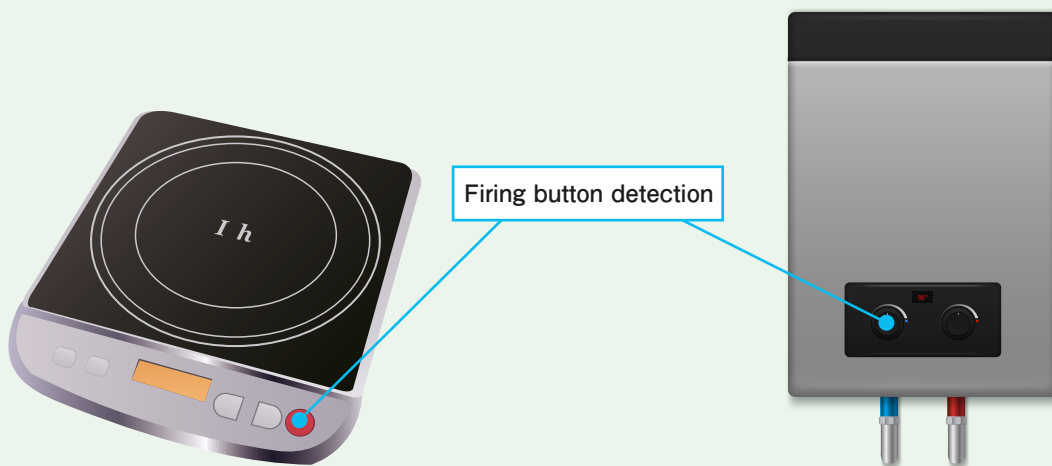
## Rice cookers








## Refrigerators

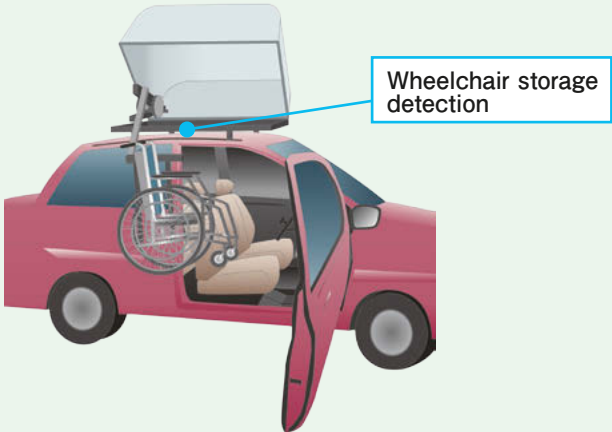
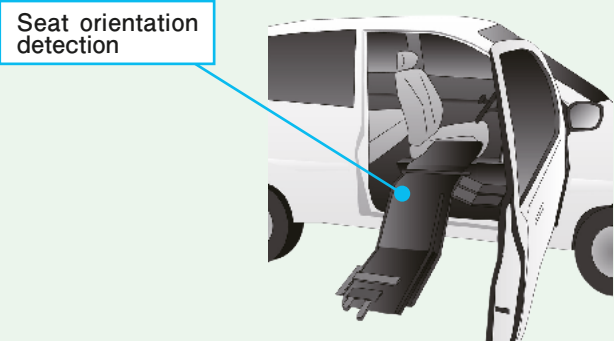


## Gas appliances and water heaters

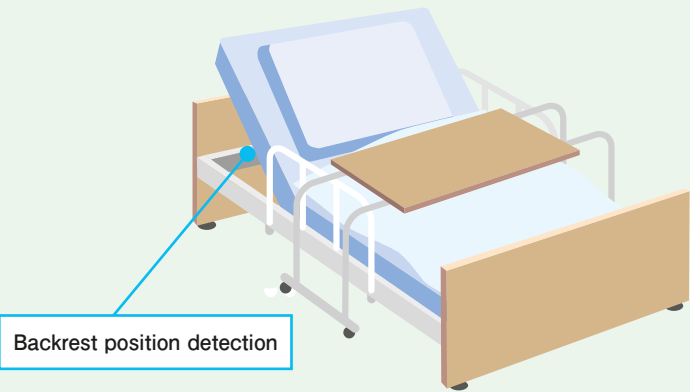


Turquoise Stroke Mini Switches Resistor installed type	Turquoise stroke mini switches	Turquoise stroke switches	ABJ (BJ) Turquoise switches	ABS (BS) Turquoise switches
ASQMR	ASQM	ASQ	ABJ	ABS
				
Disconnection · Short circuit detect Small size, IP67		Dust and water proofing (IP67)		

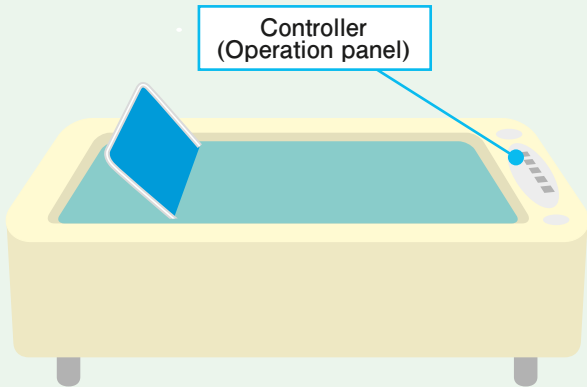
Nursing vehicles



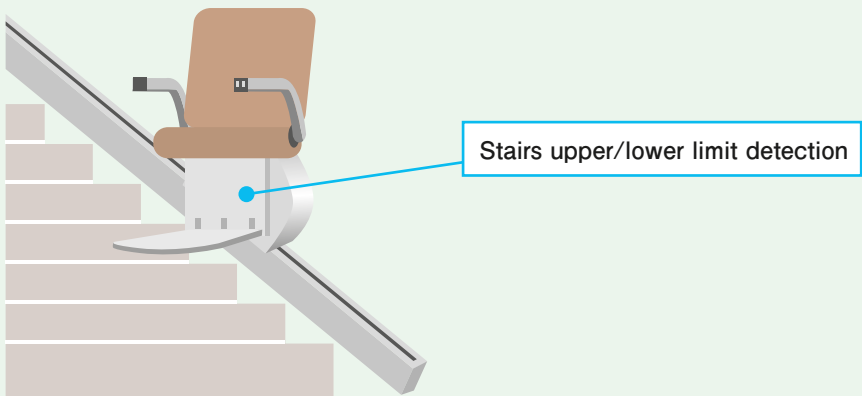
Hospital beds








Bathing care devices



Stair lifts



Turquoise stroke mini switches	Turquoise stroke switches	ABJ (BJ) Turquoise switches	ABS (BS) Turquoise switches	ABV (BV) Turquoise switches
ASQM	ASQ	ABJ	ABS	ABV



Dust and water proofing (IP67)

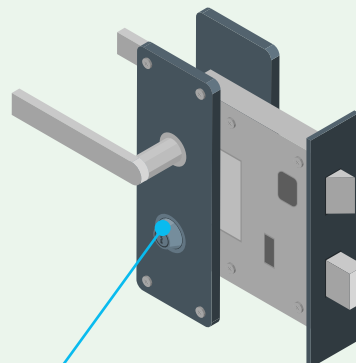
Dust and water proofing (IP67)  
Sturdy and high capacity

## Security cameras



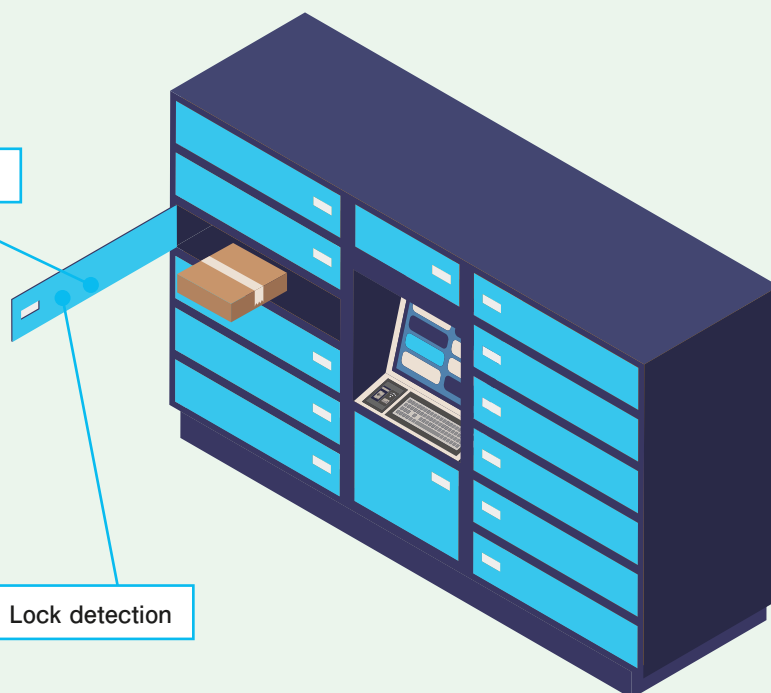
Lens rotation limit position detection

## Electronic locks



Lock detection

## Home delivery boxes



Door open/close detection

Lock detection

Turquoise stroke  
mini switches

ASQM



Turquoise stroke  
switches

ASQ



ABJ (BJ)  
Turquoise switches

ABJ



ABS (BS)  
Turquoise switches

ABS



AV4 (FU)  
switches

AV4



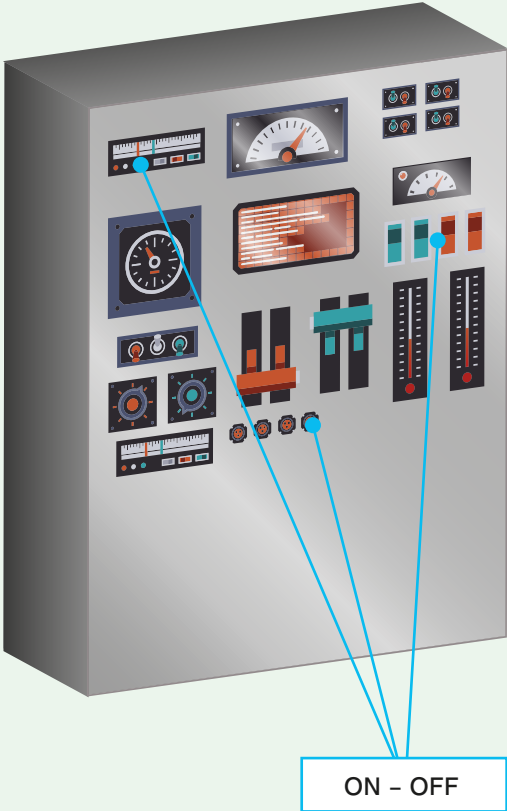
Dust and water proofing (IP67)

Miniature size

Electric tools



Production equipments



Turquoise stroke mini switches

ASQM

Turquoise stroke switches

ASQ

ABJ (BJ) Turquoise switches

ABJ

ABS (BS) Turquoise switches

ABS

Dust and water proofing (IP67)

Snap switches push-button type

WDB1

Snap switches toggle type

WD1

Snap switches rocker type






WDR1

High capacity  
Wide range of ratings and handle selection



## Multi-function machines



AJ7 (J7) switches	AJ8(J8) switches	AJ8S (J8S) switches	J8 switches with trip function	AV3 (FS) Snap-action switches
AJ7	AJ8	AJ8S	AJ8R	AV3...G
				
Contact gap 3 mm	Contact gap 3 mm	Contact gap 3 mm With signal contact	Contact gap 3 mm With reset function	Contact gap 1 mm

Please refer to **"the latest product specifications"**  
when designing your product.  
•Requests to customers:  
<https://industrial.panasonic.com/ac/e/salespolicies/>

Please contact .....

**Panasonic Corporation**

Electromechanical Control Business Division

■1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8506, Japan  
[industrial.panasonic.com/ac/e/](https://industrial.panasonic.com/ac/e/)

**Panasonic**<sup>®</sup>

©Panasonic Corporation 2020