Series *MRHQ*
Auto Switch Installation Example and Mounting Position

Various auto switch applications will be available with combinations of using different numbers of auto switches and varieties of detecting positions.

1) Detection when Gripping Exterior of Workpiece

Detection example		1. Confirmation of fingers in reset position	2. Confirmation of workpiece held	3. Confirmation of workpiece released
Position to be detected		Position of fingers fully opened	Position when gripping a workpiece	Position of fingers fully closed
Operation of auto switch		Switch turned ON when fingers return. (Light ON)	Switch turned ON when gripping a workpiece. (Light ON)	When a workpiece is held (Normal operation): Switch to turn OFF (Light not illuminating) When a workpiece is not held (Abnormal operation): Switch to turn ON (Light illuminating)
Detection combinations	One auto switch	●		
			●	
				●
	Two auto switches	●	●	
			●	●
		●		●
How to determine auto switch installation position		Step 1) Fully open the fingers.	Step 1) Position fingers for gripping a workpiece.	Step 1) Fully close the fingers.

At no pressure or low pressure, connect the switch to a power supply, and follow the directions.

Step 2) Refer to "Mounting Switches to Verify Opening/Closing of Gripper" on page 12-11-19 and position an auto switch in switch mounting groove.

Step 3) Slide the auto switch in the direction of the arrow until the indicator light illuminates.

Step 4) Slide the auto switch further in the direction of the arrow until the indicator light goes out.

Step 5) Move the auto switch in the opposite direction and fasten it at a position 0.3 to 0.5 mm beyond the position where the indicator light illuminates.

Step 3) Slide the auto switch in the direction of the arrow until the light illuminates and fasten it at a position 0.3 to 0.5 mm in the direction of the arrow beyond the position where the indicator light illuminates.

Position where light turns ON

Position to be secured

MHZ
MHF
MHL
MHR
MHK
MHS
MHC
MHT
MHY
MHW
MRHQ
Misc.
D-
20-

Note 1) It is recommended that gripping of a workpiece be performed close to the center of the finger stroke.
Note 2) When holding a workpiece close at the end of open/close stroke of fingers, detecting performance of the combinations listed in the above table may be limited, depending on the hysteresis of an auto switch, etc.

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Various auto switch applications will be available with combinations of using different numbers of auto switches and varieties of detecting positions.

2) Detection when Gripping Interior of Workpiece

Detection example		1. Confirmation of fingers in reset position	2. Confirmation of workpiece held	3. Confirmation of workpiece released
Position to be detected		Position of fingers fully closed	Position when gripping workpiece	Position of fingers fully opened
Operation of auto switch		Switch turned ON when fingers return. (Light ON)	Switch turned ON when gripping a workpiece. (Light ON)	When a workpiece is held (Normal operation): Switch to turn OFF (Light not illuminating) When a workpiece is not held (Abnormal operation): Switch to turn ON (Light illuminating)
Detection combinations	One auto switch	●		
			●	
				●
	Two auto switches	●	●	
			●	●
		●		●
How to determine auto switch installation position		Step 1) Fully close the fingers.	Step 1) Position fingers for gripping a workpiece.	Step 1) Fully open the fingers.

At no pressure or low pressure, connect the switch to a power supply, and follow the directions.

Step 2) Refer to "Mounting Switches to Verify Opening/Closing of Gripper" on page 12-11-19 and position auto switch in switch mounting groove.

Step 3) Move the auto switch in the direction of the arrow and fasten it at a position 0.3 to 0.5 mm beyond the position where the indicator light illuminates.

Position where light turns ON

Position to be secured

Step 3) Slide the auto switch in the direction of the arrow until the indicator light illuminates.

Step 4) Slide the auto switch in the direction of the arrow until the indicator light goes out.

Step 5) Move the auto switch in the opposite direction, and fasten it at a position 0.3 to 0.5 mm in the direction of the arrow beyond the position where the indicator light illuminates.

Note 1) It is recommended that gripping of a workpiece be performed close to the center of the finger stroke.
Note 2) When holding a workpiece close at the end of open/close stroke of fingers, detecting performance of the combinations listed in the above table may be limited, depending on the hysteresis of an auto switch, etc.