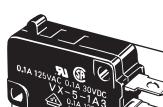
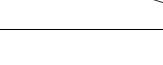


# Basic Switch Common Accessories

## Separator (Sold Separately)

To ensure a secure insulation distance, or if there are other metal parts or copper wire installed too close to the Switch, use the Switch with insulation guard or use a separator purchased separately to keep the insulation distance.

## ■ List of models

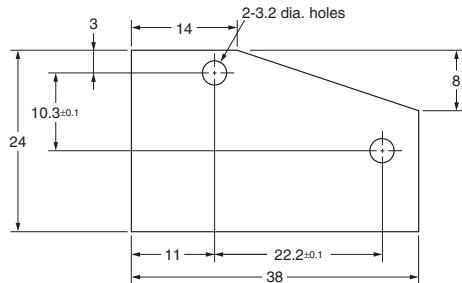
Appearance	Applicable Switches	Thickness (mm)	Model
 Separator	V D3V-01 VX D2MV D2RV D2VW	0.18	SEPARATOR FOR V0.18
		0.25	SEPARATOR FOR V0.25
 Separator	SS SS-P D2S D2SW D2SW-P	0.18	SEPARATOR FOR SS0.18
		0.4	SEPARATOR FOR SS0.4

Note. The Separator is made of EAVTC (epoxy alkyd/varnish tetron cloth) and has heat-resistant temperature of +130°C.

## ■Dimensions (Unit: mm)

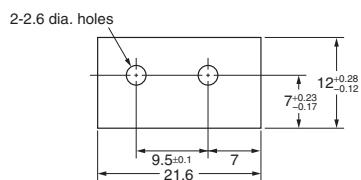
## SEPARATOR FOR V0.18

## SEPARATOR FOR V0.25



## SEPARATOR FOR SS0.18

## SEPARATOR FOR SS0.4



# Basic Switch Common Accessories

## Actuator (Sold Separately)

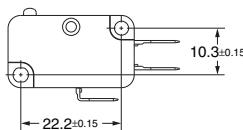
Actuators are supplementary components used when operating the Switch using cams or dogs or when transmitting mechanical movements that are not in alignment with the switch plunger.

The VAL models are suitable for cases where a Switch is operated by a rotary cam or sliding devices with relatively low operation frequency.

The VAM models are designed to operate in reverse movements and have high shock and vibration resistance. Since the Overtravel (OT) of these models is rather large, they can be used for automatic control or door switches of machining tools.

The VAV models can be used where a small Operating Force (OF) is required.

**These Actuators do not include Switches.**



Note. Switches with the mounting holes shown in the diagram can be used except for special models.

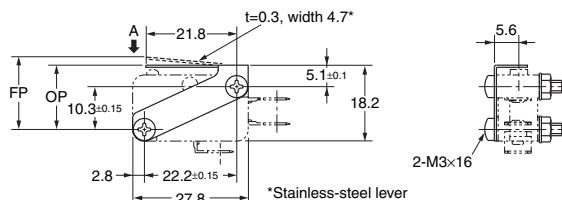
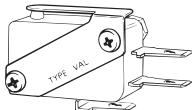
## Dimensions (Unit: mm) / Operating Characteristics

\* Model numbers are for the Actuators only.

The value given for operating characteristics are reference values. For operating characteristics of models not listed above, consult your OMRON sales representative.

### ●Leaf Spring Model

VAL

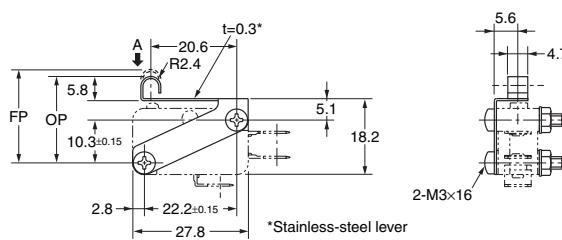
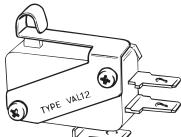


Operating characteristics		In the case of V-15-1A5
Operating Force	OF Max.	2.26 N {230 gf}
Releasing Force	RF Min.	0.49 N {50 gf}
Overtravel	OT Min.	0.8 mm
Movement Differential	MD Max.	0.4 mm
Free Position	FP Max.	17 mm
Operating Position	OP	14.9±0.5 mm

Note. Pin plunger (Designed for models of OF 1.96 N {200 gf} or greater).

### ●Simulated Leaf Spring

VAL12



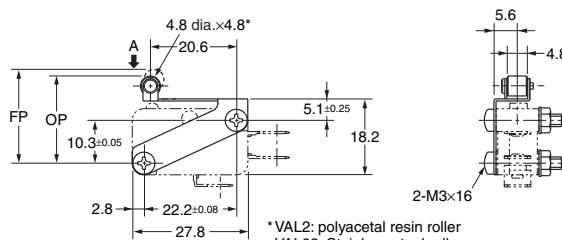
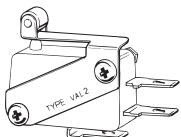
Operating characteristics		In the case of V-15-1A5
Operating Force	OF Max.	2.26 N {230 gf}
Releasing Force	RF Min.	0.49 N {50 gf}
Overtravel	OT Min.	0.8 mm
Movement Differential	MD Max.	0.4 mm
Free Position	FP Max.	22.9 mm
Operating Position	OP	20.5±0.8 mm

Note. Pin plunger (Designed for models of OF 1.96 N {200 gf} or greater).

### ●Roller Leaf Spring

VAL2

VAL02



Operating characteristics		In the case of V-15-1A5
Operating Force	OF Max.	2.26 N {230 gf}
Releasing Force	RF Min.	0.49 N {50 gf}
Overtravel	OT Min.	0.8 mm
Movement Differential	MD Max.	0.4 mm
Free Position	FP Max.	22.6 mm
Operating Position	OP	20.5±0.5 mm

Note. Pin plunger (Designed for models of OF 1.96 N {200 gf} or greater).

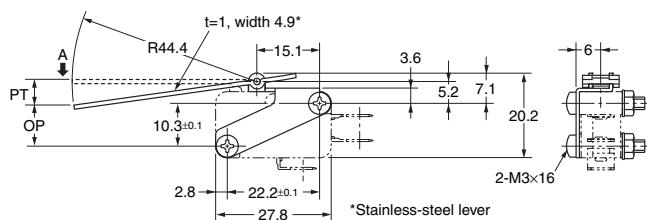
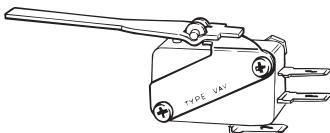
Note1. Unless otherwise specified, a tolerance of  $\pm 0.4$ mm applies to all dimensions.

Note2. The operating characteristics are for operation in the A direction (↓).

# Basic Switch Common Accessories

## ● Long Hinge Lever

VAV



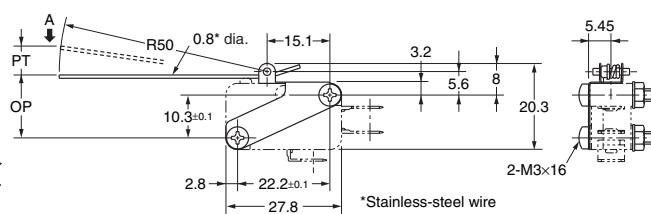
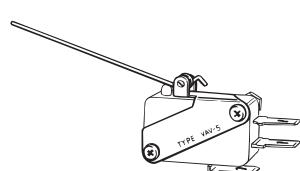
Operating characteristics		In the case of V-15-1A5
Operating Force	OF Max.	0.34 N (35 gf)
Releasing Force	RF Min.	0.04 N (4 gf)
Pretravel	PT Max.	7.6 mm
Overtravel	OT Min.	3.6 mm
Movement Differential	MD Max.	4.7 mm
Operating Position	OP	Approx. 10.6 mm

Note. Pin plunger designed for models of OF 0.98 N (100 gf) or greater.

Use in direction where the lever does not apply its own weight load to the plunger.

## ● Hinge Wire Lever

VAV-5



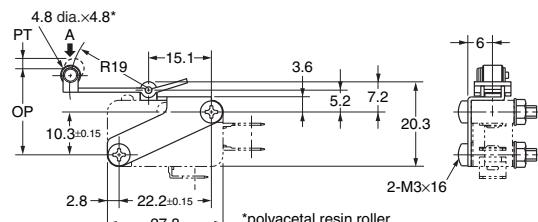
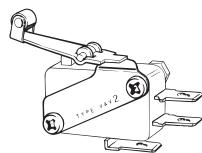
Operating characteristics		In the case of VX-5-1A2
Operating Force	OF Max.	0.03 N (3 gf)
Pretravel	PT Max.	16 mm
Overtravel	OT Min.	2 mm
Movement Differential	MD Max.	5 mm
Operating Position	OP	Approx. 16.7 mm

Note. This is designed for model of OF 0.25 N (25 gf).

Use in direction where the lever does not apply its own weight load to the plunger.

## ● Hinge Roller Lever

VAV2



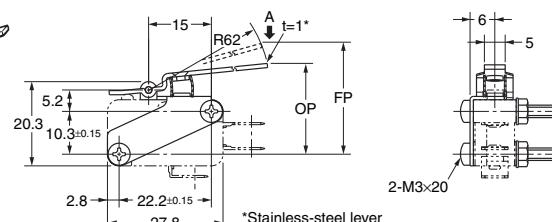
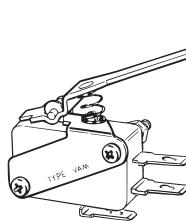
Operating characteristics		In the case of V-15-1A5
Operating Force	OF Max.	0.74 N (75 gf)
Releasing Force	RF Min.	0.09 N (9 gf)
Pretravel	PT Max.	4.8 mm
Overtravel	OT Min.	1.5 mm
Movement Differential	MD Max.	1.2 mm
Operating Position	OP	18.6±1.6 mm

Note. Pin plunger designed for models of OF 0.98 N (100 gf) or greater.

Use in direction where the lever does not apply its own weight load to the plunger.

## ● Reverse Long Hinge Lever

VAM

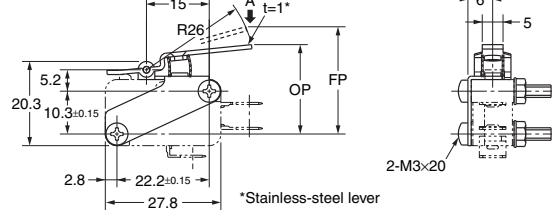
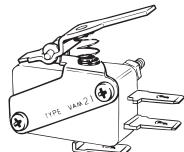


Operating characteristics		In the case of V-15-1A5
Operating Force	OF Max.	1.96 N (200 gf)
Releasing Force	RF Min.	0.29 N (30 gf)
Overtravel	OT Min.	7mm (reference value)
Movement Differential	MD Max.	5mm
Free Position	FP Max.	45 mm
Operating Position	OP	20±9 mm

Note. Not available for D2VW.

## ● Reverse Hinge Lever

VAM21



Operating characteristics		In the case of V-15-1A5
Operating Force	OF Max.	3.53 N (360 gf)
Releasing Force	RF Min.	0.69 N (70 gf)
Overtravel	OT Min.	5 mm (reference value)
Movement Differential	MD Max.	4 mm
Free Position	FP Max.	30 mm
Operating Position	OP	20±4 mm

Note. Not available for D2VW.

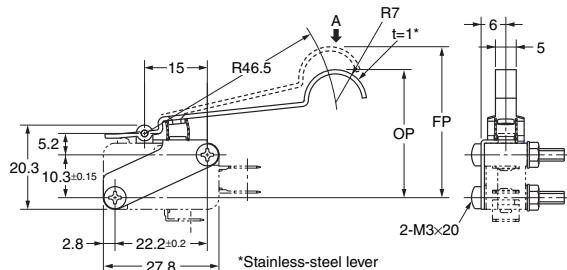
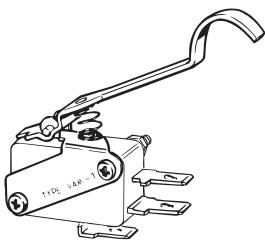
Note1. Unless otherwise specified, a tolerance of ±0.4mm applies to all dimensions.

Note2. The operating characteristics are for operation in the A direction (↓).

# Basic Switch Common Accessories

## ●Reverse Hinge Modified Lever

VAM-1

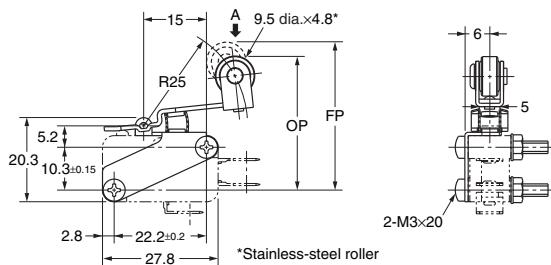
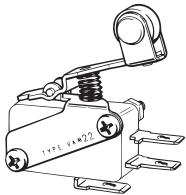


Operating characteristics		In the case of V-15-1A5
Operating Force	OF	Max. 2.94 N (300 gf)
Releasing Force	RF	Min. 0.39 N (40 gf)
Overtake	OT	Min. 5 mm (reference value)
Movement Differential	MD	Max. 6 mm
Free Position	FP	Max. 47 mm
Operating Position	OP	30±5 mm

Note. Not available for D2VW.

## ●Reverse Roller Modified Lever

VAM22

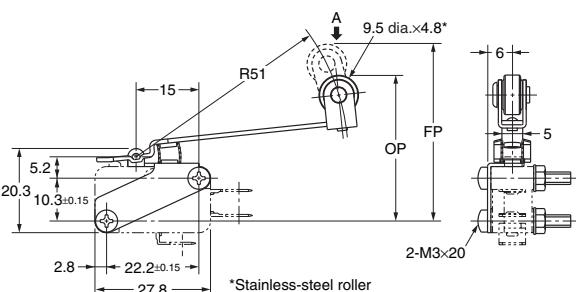
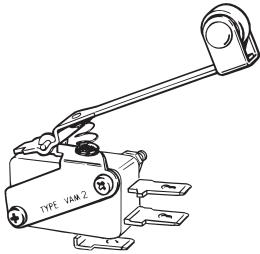


Operating characteristics		In the case of V-15-1A5
Operating Force	OF	Max. 3.53 N (360 gf)
Releasing Force	RF	Min. 0.69 N (70 gf)
Overtake	OT	Min. 3 mm (reference value)
Movement Differential	MD	Max. 4 mm
Free Position	FP	Max. 38 mm
Operating Position	OP	31±3 mm

Note. Not available for D2VW.

## ●Reverse Long Hinge Roller Lever

VAM2



Operating characteristics		In the case of V-15-1A5
Operating Force	OF	Max. 2.45 N (250 gf)
Releasing Force	RF	Min. 0.39 N (40 gf)
Overtake	OT	Min. 7 mm (reference value)
Movement Differential	MD	Max. 6 mm
Free Position	FP	Max. 48 mm
Operating Position	OP	31±6 mm

Note. Not available for D2VW.

Note1. Unless otherwise specified, a tolerance of ±0.4mm applies to all dimensions.

Note2. The operating characteristics are for operation in the A direction (↓).

- Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
- Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

**Note: Do not use this document to operate the Unit.**

**OMRON Corporation**

ELECTRONIC AND MECHANICAL COMPONENTS COMPANY

Contact: [www.omron.com/ecb](http://www.omron.com/ecb)

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