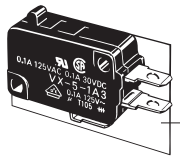
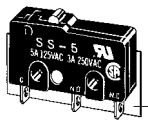
Basic Switch Common Accessories

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.

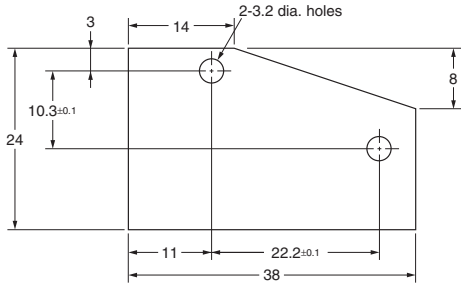
■List of models

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

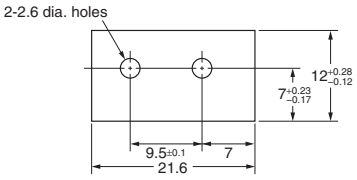
Note. The Separator is made of EAVTC (epoxy alkyd/varnish tetron cloth) and has heat-resistant temperature of +130°C.

■Dimensions (Unit: mm)

SEPARATOR FOR V0.18
SEPARATOR FOR V0.25



SEPARATOR FOR SS0.18
SEPARATOR FOR SS0.4



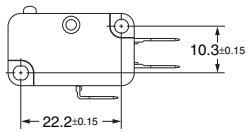
Basic Switch Common Accessories

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.

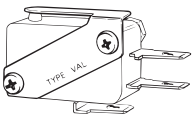


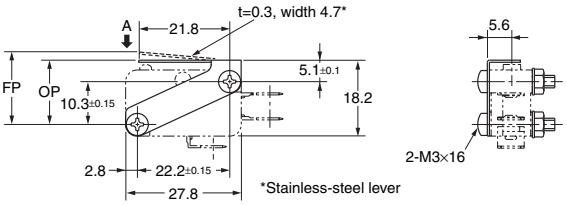
Note. Switches with the mounting holes shown in the diagram can be used except for special models.

■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

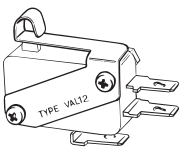


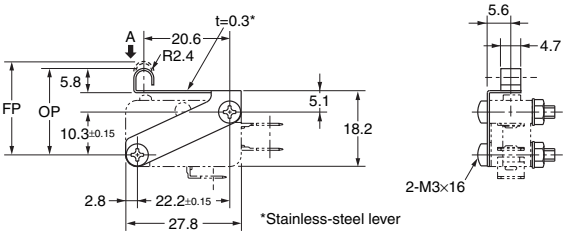


Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	2.26 N {230 gf}
Releasing Force	RF	Min.	0.49 N {50 gf}
Overtravel	OT	Min.	0.8 mm
Movement Differential	MD	Max.	0.4 mm
Free Position	FP	Max.	17 mm
Operating Position	OP		14.9±0.5 mm

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

●Simulated Leaf Spring
VAL12

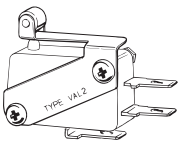


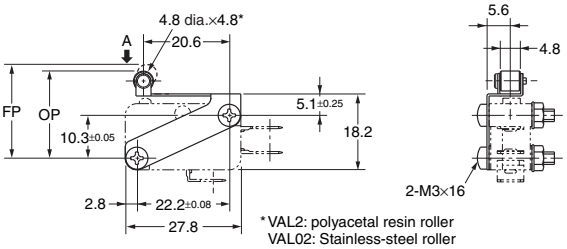


Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	2.26 N {230 gf}
Releasing Force	RF	Min.	0.49 N {50 gf}
Overtravel	OT	Min.	0.8 mm
Movement Differential	MD	Max.	0.4 mm
Free Position	FP	Max.	22.9 mm
Operating Position	OP		20.5±0.8 mm

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

●Roller Leaf Spring
VAL2
VAL02



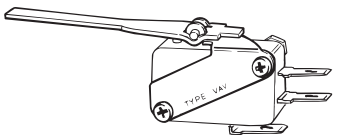


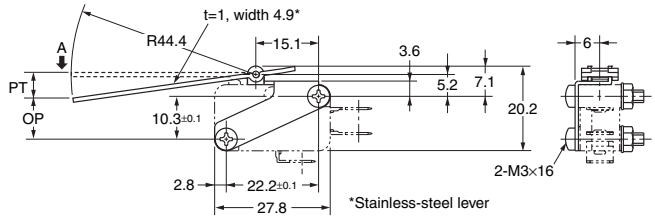
Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	2.26 N {230 gf}
Releasing Force	RF	Min.	0.49 N {50 gf}
Overtravel	OT	Min.	0.8 mm
Movement Differential	MD	Max.	0.4 mm
Free Position	FP	Max.	22.6 mm
Operating Position	OP		20.5±0.5 mm

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

Note1. Unless otherwise specified, a tolerance of ±0.4mm applies to all dimensions.
Note2. The operating characteristics are for operation in the A direction (⬇).

●Long Hinge Lever
VAV

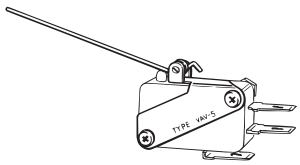


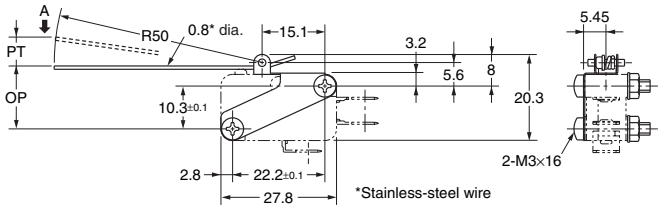


Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	0.34 N {35 gf}
Releasing Force	RF	Min.	0.04 N {4 gf}
Pretravel	PT	Max.	7.6 mm
Overtravel	OT	Min.	3.6 mm
Movement Differential	MD	Max.	4.7 mm
Operating Position	OP		Approx. 10.6 mm

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

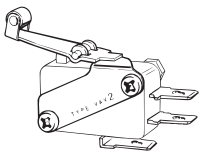


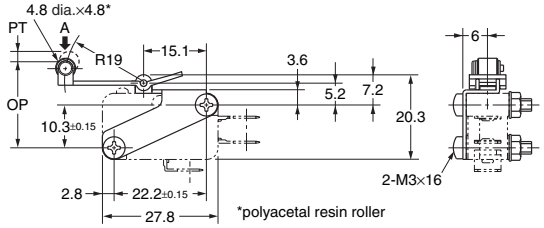


Operating characteristics			In the case of VX-5-1A2
Operating Force	OF	Max.	0.03 N {3 gf}
Pretravel	PT	Max.	16 mm
Overtravel	OT	Min.	2 mm
Movement Differential	MD	Max.	5 mm
Operating Position	OP		Approx. 16.7 mm

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

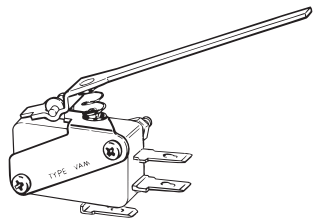


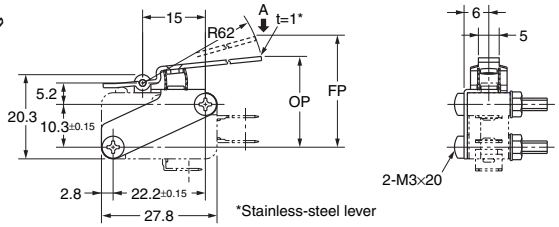


Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	0.74 N {75 gf}
Releasing Force	RF	Min.	0.09 N {9 gf}
Pretravel	PT	Max.	4.8 mm
Overtravel	OT	Min.	1.5 mm
Movement Differential	MD	Max.	1.2 mm
Operating Position	OP		18.6±1.6 mm

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

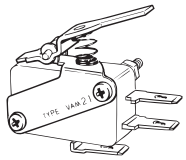


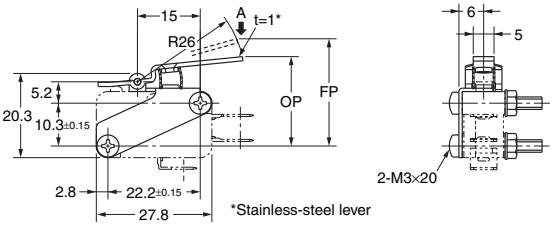


Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	1.96 N {200 gf}
Releasing Force	RF	Min.	0.29 N {30 gf}
Overtravel	OT	Min.	7mm (reference value)
Movement Differential	MD	Max.	5mm
Free Position	FP	Max.	45 mm
Operating Position	OP		20±9 mm

Note. Not available for D2VW.

●Reverse Hinge Lever
VAM21





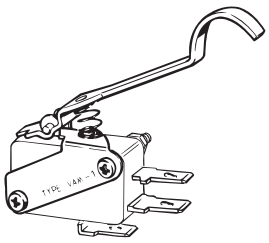
Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	3.53 N {360 gf}
Releasing Force	RF	Min.	0.69 N {70 gf}
Overtravel	OT	Min.	5 mm (reference value)
Movement Differential	MD	Max.	4 mm
Free Position	FP	Max.	30 mm
Operating Position	OP		20±4 mm

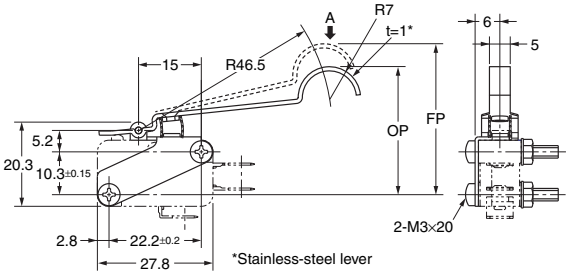
Note. Not available for D2VW.

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

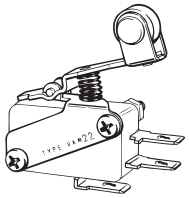


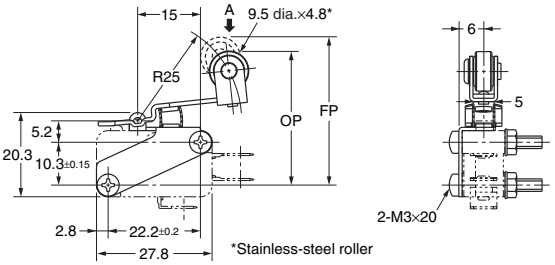


Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	2.94 N {300 gf}
Releasing Force	RF	Min.	0.39 N {40 gf}
Overtravel	OT	Min.	5 mm (reference value)
Movement Differential	MD	Max.	6 mm
Free Position	FP	Max.	47 mm
Operating Position	OP		30±5 mm

Note. Not available for D2VW.

●Reverse Roller Modified Lever
VAM22

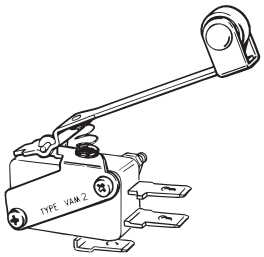


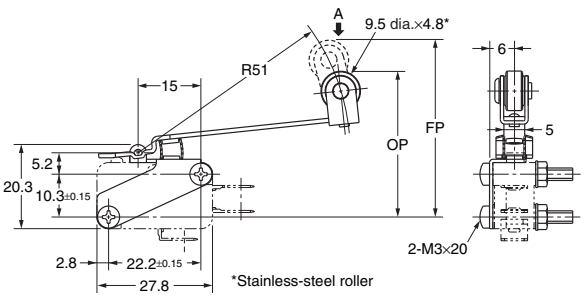


Operating characteristics			In the case of V-15-1A5
Operating Force	OF	Max.	3.53 N {360 gf}
Releasing Force	RF	Min.	0.69 N {70 gf}
Overtravel	OT	Min.	3 mm (reference value)
Movement Differential	MD	Max.	4 mm
Free Position	FP	Max.	38 mm
Operating Position	OP		31±3 mm

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}
Overtravel	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.

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ELECTRONIC AND MECHANICAL COMPONENTS COMPANY **Contact: www.omron.com/ecb**
Cat. No. B118-E1-01
0812(0207)(O)