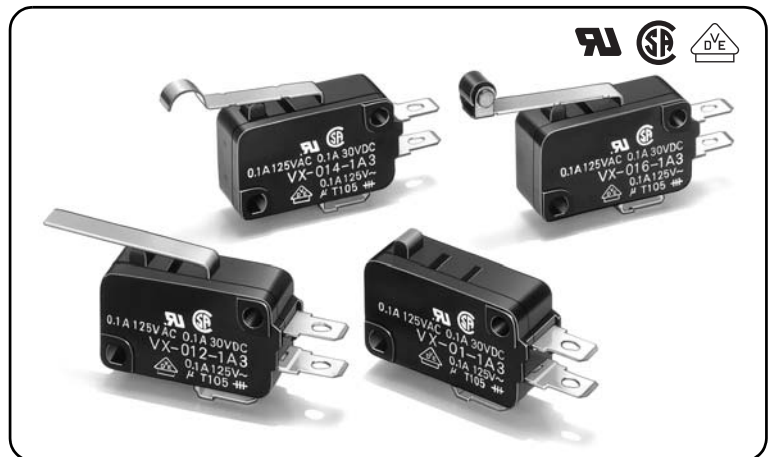


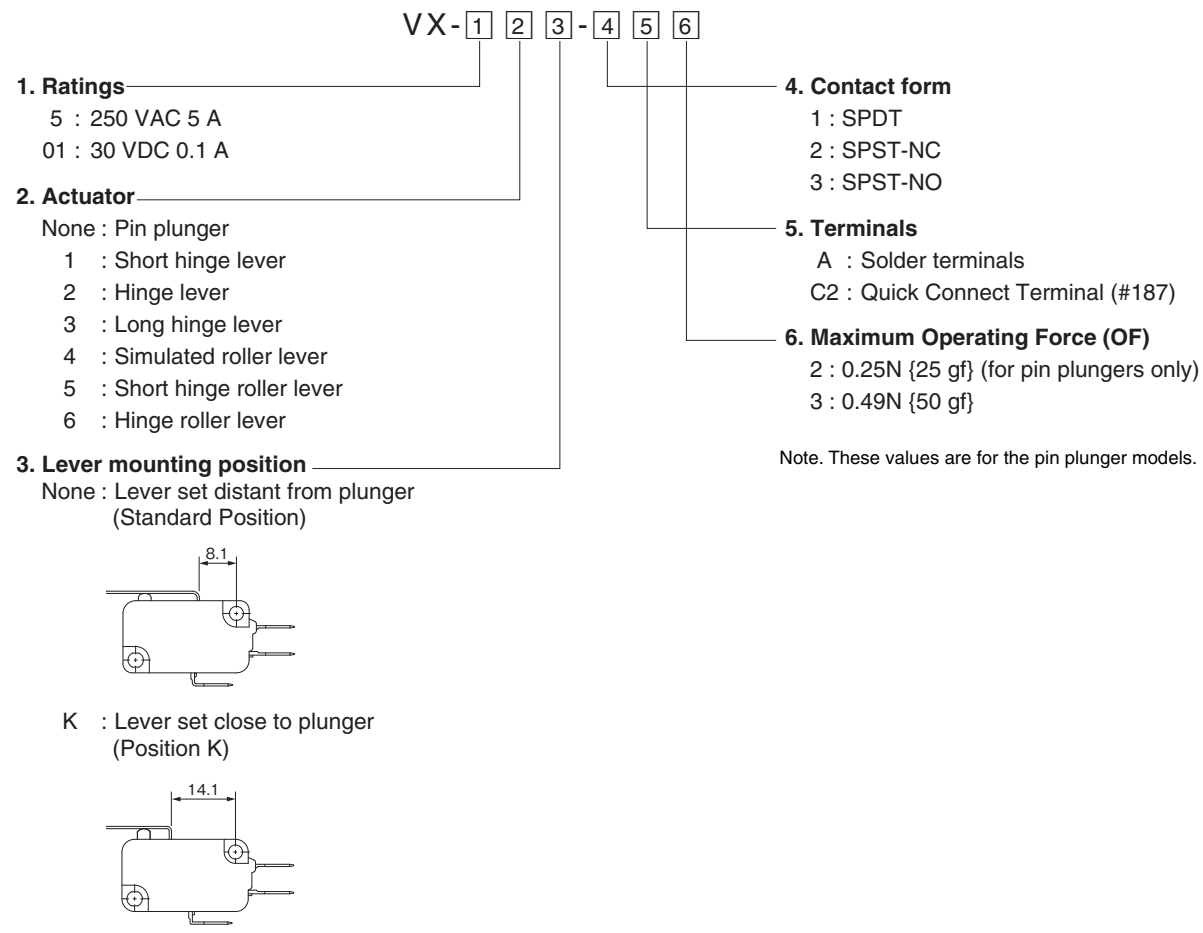
Miniature Basic Switch with Low Operating Force and High Contact Reliability

- Wide variation extends from micro load to 5A switching current, with shapes identical to those of the V-series Miniature Basic Switch.
- Unique internal mechanism ensures the high contact reliability even in micro load operations. Applicable for detection of lightweight objects.








RoHS Compliant



Model Number Legend

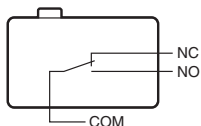


List of Models

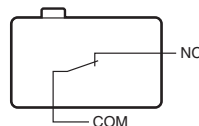
Actuator	Terminals	Contact Form	Ratings Lever mounting position Maximum Operating Force (OF)	5 A		0.1 A	
				Standard Position	Position K	Standard Position	Position K
Pin plunger 	Solder terminals	SPDT	0.25 N {25 gf}	VX-5-1A2	-	VX-01-1A2	-
		SPST-NC		VX-5-2A2	-	VX-01-2A2	-
		SPST-NO		VX-5-3A2	-	VX-01-3A2	-
		SPDT	0.49 N {50 gf}	VX-5-1A3	-	VX-01-1A3	-
		SPST-NC		VX-5-2A3	-	VX-01-2A3	-
		SPST-NO		VX-5-3A3	-	VX-01-3A3	-
	Quick Connect Terminal (#187)	SPDT	0.25 N {25 gf}	VX-5-1C22	-	VX-01-1C22	-
		SPST-NC		VX-5-2C22	-	VX-01-2C22	-
		SPST-NO		VX-5-3C22	-	VX-01-3C22	-
		SPDT	0.49 N {50 gf}	VX-5-1C23	-	VX-01-1C23	-
		SPST-NC		VX-5-2C23	-	VX-01-2C23	-
		SPST-NO		VX-5-3C23	-	VX-01-3C23	-
Short hinge lever 	Solder terminals	SPDT	0.49 N {50 gf}	VX-51-1A3	-	VX-011-1A3	-
		SPST-NC		VX-51-2A3	-	VX-011-2A3	-
		SPST-NO		VX-51-3A3	-	VX-011-3A3	-
	Quick Connect Terminal (#187)	SPDT		VX-51-1C23	-	VX-011-1C23	-
		SPST-NC		VX-51-2C23	-	VX-011-2C23	-
		SPST-NO		VX-51-3C23	-	VX-011-3C23	-
Hinge lever 	Solder terminals	SPDT	0.29 N {30 gf}	VX-52-1A3	-	VX-012-1A3	-
		SPST-NC		VX-52-2A3	-	VX-012-2A3	-
		SPST-NO		VX-52-3A3	-	VX-012-3A3	-
	Quick Connect Terminal (#187)	SPDT		VX-52-1C23	-	VX-012-1C23	-
		SPST-NC		VX-52-2C23	-	VX-012-2C23	-
		SPST-NO		VX-52-3C23	-	VX-012-3C23	-
Long hinge lever 	Solder terminals	SPDT	0.20 N {20 gf}	VX-53-1A3	VX-53K-1A3	VX-013-1A3	VX-013K-1A3
		SPST-NC		VX-53-2A3	VX-53K-2A3	VX-013-2A3	VX-013K-2A3
		SPST-NO		VX-53-3A3	VX-53K-3A3	VX-013-3A3	VX-013K-3A3
	Quick Connect Terminal (#187)	SPDT		VX-53-1C23	VX-53K-1C23	VX-013-1C23	VX-013K-1C23
		SPST-NC		VX-53-2C23	VX-53K-2C23	VX-013-2C23	VX-013K-2C23
		SPST-NO		VX-53-3C23	VX-53K-3C23	VX-013-3C23	VX-013K-3C23
Simulated roller lever 	Solder terminals	SPDT	0.29 N {30 gf}	VX-54-1A3	VX-54K-1A3	VX-014-1A3	VX-014K-1A3
		SPST-NC		VX-54-2A3	VX-54K-2A3	VX-014-2A3	VX-014K-2A3
		SPST-NO		VX-54-3A3	VX-54K-3A3	VX-014-3A3	VX-014K-3A3
	Quick Connect Terminal (#187)	SPDT		VX-54-1C23	VX-54K-1C23	VX-014-1C23	VX-014K-1C23
		SPST-NC		VX-54-2C23	VX-54K-2C23	VX-014-2C23	VX-014K-2C23
		SPST-NO		VX-54-3C23	VX-54K-3C23	VX-014-3C23	VX-014K-3C23
Short hinge roller lever 	Solder terminals	SPDT	0.59 N {60 gf}	VX-55-1A3	-	VX-015-1A3	-
		SPST-NC		VX-55-2A3	-	VX-015-2A3	-
		SPST-NO		VX-55-3A3	-	VX-015-3A3	-
	Quick Connect Terminal (#187)	SPDT		VX-55-1C23	-	VX-015-1C23	-
		SPST-NC		VX-55-2C23	-	VX-015-2C23	-
		SPST-NO		VX-55-3C23	-	VX-015-3C23	-
Hinge roller lever 	Solder terminals	SPDT	0.29 N {30 gf}	VX-56-1A3	VX-56K-1A3	VX-016-1A3	VX-016K-1A3
		SPST-NC		VX-56-2A3	VX-56K-2A3	VX-016-2A3	VX-016K-2A3
		SPST-NO		VX-56-3A3	VX-56K-3A3	VX-016-3A3	VX-016K-3A3
	Quick Connect Terminal (#187)	SPDT		VX-56-1C23	VX-56K-1C23	VX-016-1C23	VX-016K-1C23
		SPST-NC		VX-56-2C23	VX-56K-2C23	VX-016-2C23	VX-016K-2C23
		SPST-NO		VX-56-3C23	VX-56K-3C23	VX-016-3C23	VX-016K-3C23

Contact Form

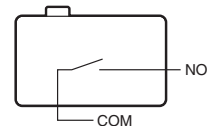
●SPDT



●SPST-NC



●SPST-NO



Separator (Sold Separately), Actuator (Sold Separately), Terminal Connector (Sold Separately) ➔ Refer to "Basic Switch Common Accessories"

Contact Specifications

Item	Model	VX-5 models	VX-01 models
Contact	Specification	Rivet	Crossbar
	Material	Silver alloy	Gold alloy
	Gap (standard value)	0.5 mm	
Inrush current	NC	15 A max.	-
	NO	15 A max.	-
Minimum applicable load (reference value) *		5 VDC 160 mA	5 VDC 1 mA

* Please refer to "Using Micro Loads" in "●Precautions" for more information on the minimum applicable load.

Ratings

Model	Rated voltage	Resistive load
VX-5 models	250 VAC	5 A
	125 VAC	0.1 A
VX-01 models	30 VDC	0.1 A

Note. The above rating values apply under the following test conditions.

- (1) Ambient temperature: 20±2°C
- (2) Ambient humidity: 65±5%
- (3) Operating frequency: 30 operations/min

Approved Safety Standards

UL (UL1054)/CSA (CSA C22.2 No.55)

Rated voltage	Model	VX-5	VX-01
125 VAC 250 V		5 A	0.1 A
		5 A	-
30 VDC		-	0.1 A

VDE (EN61058-1)

Rated voltage	Model	VX-5	VX-01
250VAC		5 A	-
125VAC		5 A	0.1 A

Testing conditions: 5E4 (50,000 operations) T105 (0 to 105°C)

Terminals/Appearances (Unit: mm)

Solder terminals	Quick Connect Terminal (#187)
<p>3-Solder terminals</p>	<p>3-Quick Connect Terminal (#187)</p>
<p>* This indicates the length to the center of 1.6 dia. hole.</p>	<p>1.6 dia. terminal holes</p>

Note. The above is for the SPDT contact specifications.

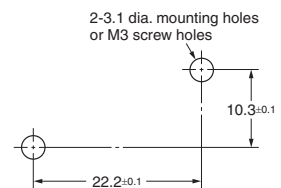
Characteristics

Item	Model	VX-5 models	VX-01 models
Permissible operating speed		0.1 mm to 1 m/s (for pin plunger models)	
Permissible operating frequency	Mechanical	600 operations/min (for pin plunger models)	
	Electrical	60 operations/min	
Insulation resistance		100 MΩ min. (at 500 VDC with insulation tester)	
Contact resistance (initial value)		30 mΩ max.	50 mΩ max.
Dielectric strength *1	Between terminals of the same polarity	1,000 VAC 50/60 Hz for 1 min	
	Between current-carrying metal parts and ground	1,500 VAC 50/60 Hz for 1 min	
	Between terminals and non-current-carrying metal parts	1,500 VAC 50/60 Hz for 1 min	
Vibration resistance *2	Malfunition	10 to 55 Hz, 1.5 mm double amplitude	
Shock resistance	Durability	400 m/s ² {approx. 40G} max.	
	Malfunition *2	100 m/s ² {approx. 10G} max.	
Durability *3	Mechanical	50,000,000 operations min. (60 operations/min)	10,000,000 operations min. (60 operations/min)
	Electrical	500,000 operations min. (30 operations/min)	1,000,000 operations min. (30 operations/min)
Degree of protection		IEC IP40	
Degree of protection against electric shock		Class I	
Proof tracking index (PTI)		175	
Ambient operating temperature		-25 to 105°C (at ambient humidity of 60% max.) (with no icing or condensation)	
Ambient operating humidity		85% max. (for 5 to 35°C)	
Weight		Approx. 6.2 g (pin plunger models)	

Note. The data given above are initial values.

- *1. The values for dielectric strength shown are for models with a Separator (refer to "Micro Switch Common Accessories").
- *2. For the pin plunger models, the above values apply for use at the free position and total travel position. For the lever models, they apply at the total travel position. Close or open circuit of the contact is 1 ms max.
- *3. For testing conditions, consult your OMRON sales representative.

Mounting Holes (Unit: mm)



V
X