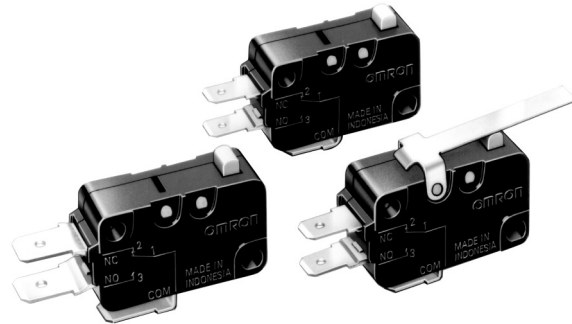


# Miniature Basic Switch D3V

## Reliable Basic Switch with External Lever

- Available by 0.1 A, 6 A, 11 A, 16 A and 21 A models, all with self-cleaning contacts. 0.1 A utilizes gold alloy crossbar contacts for high reliability at low loads.
- Available with internally or externally fitted levers, and 2 fixing positions for external levers.
- Conforms to EN61058-1 UL1054.
- Right-angle plunger option available in some models.
- RoHS Compliant.



## Ordering Information

### Model Number Legend

D3V-□□□□-□□□□-□-□  
1 2 3 4 5 6 7 8 9

#### 1. Ratings

- 21: 20 (4) A at 250 VAC
- 16: 16 (3) A at 250 VAC
- 11: 11 (3) A at 250 VAC
- 6: 6 (2) A at 250 VAC
- 01: 0.1 A at 125 VAC

#### 2. Contact Gap

- None: 1 mm (F gap)
- G: 0.5 mm (G gap)

#### 3. Actuator

- None: Pin plunger
- 1: Short hinge lever
- 2: Hinge lever
- 3: Long hinge lever
- 4: Simulated roller lever
- 5: Short hinge roller lever
- 6: Hinge roller lever

#### 4. Hinge Position

- None: Internal/Far from plunger
- M: External/Far from plunger
- K: External/Near plunger

#### 5. Contact Form

- 1: SPDT
- 2: SPST-NC
- 3: SPST-NO

#### 6. Terminals

- A: Solder/quick-connect terminal (#187)
- C2: Quick-connect terminal (#187)
- C: Quick-connect terminal (#250)  
(optional without surge creepage tab flush around terminals.)

#### 7. Maximum Operating Force

- 5: 1.96 N {200 gf}
- 4A: 1.23 N {125 gf}
- 4: 0.98 N {100 gf}
- 3: 0.49 N {50 gf}
- 2: 0.25 N {25 gf}

**Note:** These values are for the plunger models.

#### 8. Mounting Hole Size

- None: 3.1 mm
- K: 2.9 mm

#### 9. Special Code

- None: Standard
- H: High temperature (125°C)
- E: Special rating: 21 (8) A
- T: High temperature (200°C)








## Available Combinations

| Heat resistance             | Model | D3V-21        |                    | D3V-16      |                    |             | D3V-11                   |                    |             |                    |             | D3V-6             |                          |           |                    | D3V-01      |                   |                   |                   |  |
|-----------------------------|-------|---------------|--------------------|-------------|--------------------|-------------|--------------------------|--------------------|-------------|--------------------|-------------|-------------------|--------------------------|-----------|--------------------|-------------|-------------------|-------------------|-------------------|--|
|                             |       | Rated current |                    | 21 A        |                    |             | 16 A                     |                    |             | 11 A               |             |                   |                          |           | 6 A                |             |                   |                   | 0.1 A             |  |
|                             |       | OF            | 1.23 N<br>{125 gf} |             | 1.96 N<br>{200 gf} |             | 0.98 N<br>{100 gf}       | 1.96 N<br>{200 gf} |             | 0.98 N<br>{100 gf} |             | 0.49 N<br>{50 gf} | 1.96 N<br>{200 gf}       |           | 0.98 N<br>{100 gf} |             | 0.49 N<br>{50 gf} | 0.49 N<br>{50 gf} | 0.25 N<br>{25 gf} |  |
|                             |       |               | Contact gap        | G<br>0.5 mm | F<br>1 mm          | G<br>0.5 mm | F/G<br>1 mm or<br>0.5 mm | F<br>1 mm          | G<br>0.5 mm | F<br>1 mm          | G<br>0.5 mm | G<br>0.5 mm       | F/G<br>1 mm or<br>0.5 mm | F<br>1 mm | G<br>0.5 mm        | G<br>0.5 mm | F<br>1 mm         | F<br>1 mm         |                   |  |
| Terminals                   |       |               |                    |             |                    |             |                          |                    |             |                    |             |                   |                          |           |                    |             |                   |                   |                   |  |
| Standard<br>(85°C)          | #187  |               |                    |             |                    |             |                          |                    |             |                    |             |                   |                          |           |                    |             | ●                 | ●                 |                   |  |
|                             | #250  | ●             |                    |             |                    |             |                          |                    |             |                    |             |                   |                          |           |                    |             | ○                 | ○                 |                   |  |
| Standard<br>(105°C)         | #187  |               | ●                  | ○           | ○                  | ●           | ○                        | ●                  | ○           | ○                  | ○           | ○                 | ●                        | ○         | ●                  |             |                   |                   |                   |  |
|                             | #250  |               | ●                  | ○           | ○                  | ●           | ○                        | ●                  | ○           | ○                  | ○           | ○                 | ●                        | ○         | ●                  |             |                   |                   |                   |  |
| High temperature<br>(125°C) | #187  |               | ○                  | ○           | ○                  | ○           | ○                        | ○                  | ○           | ○                  | ○           | ○                 | ○                        | ○         | ○                  |             |                   |                   |                   |  |
|                             | #250  |               | ○                  | ○           | ○                  | ○           | ○                        | ○                  | ○           | ○                  | ○           | ○                 | ○                        | ○         | ○                  |             |                   |                   |                   |  |
| High temperature<br>(200°C) | #187  |               |                    |             |                    |             |                          |                    |             |                    |             | ○                 | ○                        | ○         | ○                  | ○           | ○                 |                   |                   |  |
|                             | #250  |               |                    |             |                    |             |                          |                    |             |                    |             | ○                 | ○                        | ○         | ○                  | ○           | ○                 |                   |                   |  |








- Note: 1.** ●: Standard  
○: Semi-standard
- 2.** Consult OMRON for specific models with standard approval.

## ■ List of Models

### 21 A (OF: 1.23 N {125 gf})

| Actuator   | Hinge position<br>(far from plunger) | Contact form     |                  |                  |
|--|--------------------------------------|------------------|------------------|------------------|
|  |                                      | SPDT             | SPST-NC          | SPST-NO          |
| Plunger                   | ---                                  | D3V-21G-1□4A-Δ   | D3V-21G-2□4A-Δ   | D3V-21G-3□4A-Δ   |
| Short hinge lever         | Internal                             | D3V-21G1-1□4A-Δ  | D3V-21G1-2□4A-Δ  | D3V-21G1-3□4A-Δ  |
|  | External (M)                         | D3V-21G1M-1□4A-Δ | D3V-21G1M-2□4A-Δ | D3V-21G1M-3□4A-Δ |
| Hinge lever               | Internal                             | D3V-21G2-1□4A-Δ  | D3V-21G2-2□4A-Δ  | D3V-21G2-3□4A-Δ  |
|  | External (M)                         | D3V-21G2M-1□4A-Δ | D3V-21G2M-2□4A-Δ | D3V-21G2M-3□4A-Δ |
| Long hinge lever          | Internal                             | D3V-21G3-1□4A-Δ  | D3V-21G3-2□4A-Δ  | D3V-21G3-3□4A-Δ  |
|  | External (M)                         | D3V-21G3M-1□4A-Δ | D3V-21G3M-2□4A-Δ | D3V-21G3M-3□4A-Δ |
| Simulated roller lever    | Internal                             | D3V-21G4-1□4A-Δ  | D3V-21G4-2□4A-Δ  | D3V-21G4-3□4A-Δ  |
|  | External (M)                         | D3V-21G4M-1□4A-Δ | D3V-21G4M-2□4A-Δ | D3V-21G4M-3□4A-Δ |
| Short hinge roller lever  | Internal                             | D3V-21G5-1□4A-Δ  | D3V-21G5-2□4A-Δ  | D3V-21G5-3□4A-Δ  |
|  | External (M)                         | D3V-21G5M-1□4A-Δ | D3V-21G5M-2□4A-Δ | D3V-21G5M-3□4A-Δ |
| Hinge roller lever        | Internal                             | D3V-21G6-1□4A-Δ  | D3V-21G6-2□4A-Δ  | D3V-21G6-3□4A-Δ  |
|  | External (M)                         | D3V-21G6M-1□4A-Δ | D3V-21G6M-2□4A-Δ | D3V-21G6M-3□4A-Δ |

### 16 A (OF: 1.96 N {200 gf})

| Actuator   | Hinge position<br>(far from plunger) | Contact form   |                |                |
|--|--------------------------------------|----------------|----------------|----------------|
|  |                                      | SPDT           | SPST-NC        | SPST-NO        |
| Plunger                     | ---                                  | D3V-16-1□5-Δ   | D3V-16-2□5-Δ   | D3V-16-3□5-Δ   |
| Short hinge lever           | Internal                             | D3V-161-1□5-Δ  | D3V-161-2□5-Δ  | D3V-161-3□5-Δ  |
|  | External (M)                         | D3V-161M-1□5-Δ | D3V-161M-2□5-Δ | D3V-161M-3□5-Δ |
| Hinge lever               | Internal                             | D3V-162-1□5-Δ  | D3V-162-2□5-Δ  | D3V-162-3□5-Δ  |
|  | External (M)                         | D3V-162M-1□5-Δ | D3V-162M-2□5-Δ | D3V-162M-3□5-Δ |
| Long hinge lever          | Internal                             | D3V-163-1□5-Δ  | D3V-163-2□5-Δ  | D3V-163-3□5-Δ  |
|  | External (M)                         | D3V-163M-1□5-Δ | D3V-163M-2□5-Δ | D3V-163M-3□5-Δ |
| Simulated roller lever    | Internal                             | D3V-164-1□5-Δ  | D3V-164-2□5-Δ  | D3V-164-3□5-Δ  |
|  | External (M)                         | D3V-164M-1□5-Δ | D3V-164M-2□5-Δ | D3V-164M-3□5-Δ |
| Short hinge roller lever  | Internal                             | D3V-165-1□5-Δ  | D3V-165-2□5-Δ  | D3V-165-3□5-Δ  |
|  | External (M)                         | D3V-165M-1□5-Δ | D3V-165M-2□5-Δ | D3V-165M-3□5-Δ |
| Hinge roller lever        | Internal                             | D3V-166-1□5-Δ  | D3V-166-2□5-Δ  | D3V-166-3□5-Δ  |
|  | External (M)                         | D3V-166M-1□5-Δ | D3V-166M-2□5-Δ | D3V-166M-3□5-Δ |

**Note:** The □ in the model number is for the terminal code.

A: Solder/quick-connect terminals (#187)

C2: Quick-connect terminals (#187)








C: Quick-connect terminals (#250)

The Δ in the model number is for the mounting hole size.








None: 3.1 mm

K: 2.9 mm

**16 A (OF: 0.98 N {100 gf})**








| Actuator   | Hinge position<br>(far from plunger) | Contact form   |                |                |
|--|--------------------------------------|----------------|----------------|----------------|
|  |                                      | SPDT           | SPST-NC        | SPST-NO        |
| Plunger                   | ---                                  | D3V-16-1□4-Δ   | D3V-16-2□4-Δ   | D3V-16-3□4-Δ   |
| Short hinge lever         | Internal                             | D3V-161-1□4-Δ  | D3V-161-2□4-Δ  | D3V-161-3□4-Δ  |
|  | External (M)                         | D3V-161M-1□4-Δ | D3V-161M-2□4-Δ | D3V-161M-3□4-Δ |
| Hinge lever               | Internal                             | D3V-162-1□4-Δ  | D3V-162-2□4-Δ  | D3V-162-3□4-Δ  |
|  | External (M)                         | D3V-162M-1□4-Δ | D3V-162M-2□4-Δ | D3V-162M-3□4-Δ |
| Long hinge lever          | Internal                             | D3V-163-1□4-Δ  | D3V-163-2□4-Δ  | D3V-163-3□4-Δ  |
|  | External (M)                         | D3V-163M-1□4-Δ | D3V-163M-2□4-Δ | D3V-163M-3□4-Δ |
| Simulated roller lever    | Internal                             | D3V-164-1□4-Δ  | D3V-164-2□4-Δ  | D3V-164-3□4-Δ  |
|  | External (M)                         | D3V-164M-1□4-Δ | D3V-164M-2□4-Δ | D3V-164M-3□4-Δ |
| Short hinge roller lever  | Internal                             | D3V-165-1□4-Δ  | D3V-165-2□4-Δ  | D3V-165-3□4-Δ  |
|  | External (M)                         | D3V-165M-1□4-Δ | D3V-165M-2□4-Δ | D3V-165M-3□4-Δ |
| Hinge roller lever        | Internal                             | D3V-166-1□4-Δ  | D3V-166-2□4-Δ  | D3V-166-3□4-Δ  |
|  | External (M)                         | D3V-166M-1□4-Δ | D3V-166M-2□4-Δ | D3V-166M-3□4-Δ |

**11 A (OF: 1.96 N {200 gf})**




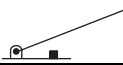



| Actuator   | Hinge position<br>(far from plunger) | Contact form   |                |                |
|--|--------------------------------------|----------------|----------------|----------------|
|  |                                      | SPDT           | SPST-NC        | SPST-NO        |
| Plunger                     | ---                                  | D3V-11-1□5-Δ   | D3V-11-2□5-Δ   | D3V-11-3□5-Δ   |
| Short hinge lever           | Internal                             | D3V-111-1□5-Δ  | D3V-111-2□5-Δ  | D3V-111-3□5-Δ  |
|  | External (M)                         | D3V-111M-1□5-Δ | D3V-111M-2□5-Δ | D3V-111M-3□5-Δ |
| Hinge lever                 | Internal                             | D3V-112-1□5-Δ  | D3V-112-2□5-Δ  | D3V-112-3□5-Δ  |
|  | External (M)                         | D3V-112M-1□5-Δ | D3V-112M-2□5-Δ | D3V-112M-3□5-Δ |
| Long hinge lever            | Internal                             | D3V-113-1□5-Δ  | D3V-113-2□5-Δ  | D3V-113-3□5-Δ  |
|  | External (M)                         | D3V-113M-1□5-Δ | D3V-113M-2□5-Δ | D3V-113M-3□5-Δ |
| Simulated roller lever    | Internal                             | D3V-114-1□5-Δ  | D3V-114-2□5-Δ  | D3V-114-3□5-Δ  |
|  | External (M)                         | D3V-114M-1□5-Δ | D3V-114M-2□5-Δ | D3V-114M-3□5-Δ |
| Short hinge roller lever  | Internal                             | D3V-115-1□5-Δ  | D3V-115-2□5-Δ  | D3V-115-3□5-Δ  |
|  | External (M)                         | D3V-115M-1□5-Δ | D3V-115M-2□5-Δ | D3V-115M-3□5-Δ |
| Hinge roller lever        | Internal                             | D3V-116-1□5-Δ  | D3V-116-2□5-Δ  | D3V-116-3□5-Δ  |
|  | External (M)                         | D3V-116M-1□5-Δ | D3V-116M-2□5-Δ | D3V-116M-3□5-Δ |

**Note:** The □ in the model number is for the terminal code.  
 A: Solder/quick-connect terminals (#187)  
 C2: Quick-connect terminals (#187)  
 C: Quick-connect terminals (#250)  
 The Δ in the model number is for the mounting hole size.  
 None: 3.1 mm  
 K: 2.9 mm

**11 A (OF: 0.98 N {100 gf})**

| Actuator   | Hinge position<br>(far from plunger) | Contact form   |                |                |
|--|--------------------------------------|----------------|----------------|----------------|
|  |                                      | SPDT           | SPST-NC        | SPST-NO        |
| Plunger                   | ---                                  | D3V-11-1□4-Δ   | D3V-11-2□4-Δ   | D3V-11-3□4-Δ   |
| Short hinge lever         | Internal                             | D3V-111-1□4-Δ  | D3V-111-2□4-Δ  | D3V-111-3□4-Δ  |
|  | External (M)                         | D3V-111M-1□4-Δ | D3V-111M-2□4-Δ | D3V-111M-3□4-Δ |
| Hinge lever               | Internal                             | D3V-112-1□4-Δ  | D3V-112-2□4-Δ  | D3V-112-3□4-Δ  |
|  | External (M)                         | D3V-112M-1□4-Δ | D3V-112M-2□4-Δ | D3V-112M-3□4-Δ |
| Long hinge lever          | Internal                             | D3V-113-1□4-Δ  | D3V-113-2□4-Δ  | D3V-113-3□4-Δ  |
|  | External (M)                         | D3V-113M-1□4-Δ | D3V-113M-2□4-Δ | D3V-113M-3□4-Δ |
| Simulated roller lever    | Internal                             | D3V-114-1□4-Δ  | D3V-114-2□4-Δ  | D3V-114-3□4-Δ  |
|  | External (M)                         | D3V-114M-1□4-Δ | D3V-114M-2□4-Δ | D3V-114M-3□4-Δ |
| Short hinge roller lever  | Internal                             | D3V-115-1□4-Δ  | D3V-115-2□4-Δ  | D3V-115-3□4-Δ  |
|  | External (M)                         | D3V-115M-1□4-Δ | D3V-115M-2□4-Δ | D3V-115M-3□4-Δ |
| Hinge roller lever        | Internal                             | D3V-116-1□4-Δ  | D3V-116-2□4-Δ  | D3V-116-3□4-Δ  |
|  | External (M)                         | D3V-116M-1□4-Δ | D3V-116M-2□4-Δ | D3V-116M-3□4-Δ |

**11 A (OF: 0.49 N {50 gf})**

| Actuator   | Hinge position<br>(far from plunger) | Contact form    |                 |                 |
|--|--------------------------------------|-----------------|-----------------|-----------------|
|  |                                      | SPDT            | SPST-NC         | SPST-NO         |
| Plunger                     | ---                                  | D3V-11G-1□3-Δ   | D3V-11G-2□4-Δ   | D3V-11G-3□3-Δ   |
| Short hinge lever           | Internal                             | D3V-11G1-1□3-Δ  | D3V-11G1-2□4-Δ  | D3V-11G1-3□3-Δ  |
|  | External (M)                         | D3V-11G1M-1□3-Δ | D3V-11G1M-2□3-Δ | D3V-11G1M-3□3-Δ |
| Hinge lever                 | Internal                             | D3V-11G2-1□3-Δ  | D3V-11G2-2□3-Δ  | D3V-11G2-3□3-Δ  |
|  | External (M)                         | D3V-11G2M-1□3-Δ | D3V-11G2M-2□3-Δ | D3V-11G2M-3□3-Δ |
| Long hinge lever           | Internal                             | D3V-11G3-1□3-Δ  | D3V-11G3-2□3-Δ  | D3V-11G3-3□3-Δ  |
|  | External (M)                         | D3V-11G3M-1□3-Δ | D3V-11G3M-2□3-Δ | D3V-11G3M-3□3-Δ |
| Simulated roller lever    | Internal                             | D3V-11G4-1□3-Δ  | D3V-11G4-2□3-Δ  | D3V-11G4-3□3-Δ  |
|  | External (M)                         | D3V-11G4M-1□3-Δ | D3V-11G4M-2□3-Δ | D3V-11G4M-3□3-Δ |
| Short hinge roller lever  | Internal                             | D3V-11G5-1□3-Δ  | D3V-11G5-2□3-Δ  | D3V-11G5-3□3-Δ  |
|  | External (M)                         | D3V-11G5M-1□3-Δ | D3V-11G5M-2□3-Δ | D3V-11G5M-3□3-Δ |
| Hinge roller lever        | Internal                             | D3V-11G6-1□3-Δ  | D3V-11G6-2□3-Δ  | D3V-11G6-3□3-Δ  |
|  | External (M)                         | D3V-11G6M-1□3-Δ | D3V-11G6M-2□3-Δ | D3V-11G6M-3□3-Δ |

**Note:** The □ in the model number is for the terminal code.

A: Solder/quick-connect terminals (#187)

C2: Quick-connect terminals (#187)








C: Quick-connect terminals (#250)

The Δ in the model number is for the mounting hole size.








None: 3.1 mm

K: 2.9 mm

**6 A (OF: 0.98 N {100 gf})**




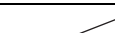



| Actuator   | Hinge position<br>(far from plunger) | Contact form  |               |               |
|--|--------------------------------------|---------------|---------------|---------------|
|  |                                      | SPDT          | SPST-NC       | SPST-NO       |
| Plunger                   | ---                                  | D3V-6-1□4-Δ   | D3V-6-2□4-Δ   | D3V-6-3□4-Δ   |
| Short hinge lever         | Internal                             | D3V-61-1□4-Δ  | D3V-61-2□4-Δ  | D3V-61-3□4-Δ  |
|  | External (M)                         | D3V-61M-1□4-Δ | D3V-61M-2□4-Δ | D3V-61M-3□4-Δ |
| Hinge lever               | Internal                             | D3V-62-1□4-Δ  | D3V-62-2□4-Δ  | D3V-62-3□4-Δ  |
|  | External (M)                         | D3V-62M-1□4-Δ | D3V-62M-2□4-Δ | D3V-62M-3□4-Δ |
| Long hinge lever          | Internal                             | D3V-63-1□4-Δ  | D3V-63-2□4-Δ  | D3V-63-3□4-Δ  |
|  | External (M)                         | D3V-63M-1□4-Δ | D3V-63M-2□4-Δ | D3V-63M-3□4-Δ |
| Simulated roller lever    | Internal                             | D3V-64-1□4-Δ  | D3V-64-2□4-Δ  | D3V-64-3□4-Δ  |
|  | External (M)                         | D3V-64M-1□4-Δ | D3V-64M-2□4-Δ | D3V-64M-3□4-Δ |
| Short hinge roller lever  | Internal                             | D3V-65-1□4-Δ  | D3V-65-2□4-Δ  | D3V-65-3□4-Δ  |
|  | External (M)                         | D3V-65M-1□4-Δ | D3V-65M-2□4-Δ | D3V-65M-3□4-Δ |
| Hinge roller lever        | Internal                             | D3V-66-1□4-Δ  | D3V-66-2□4-Δ  | D3V-66-3□4-Δ  |
|  | External (M)                         | D3V-66M-1□4-Δ | D3V-66M-2□4-Δ | D3V-66M-3□4-Δ |

**6 A (OF: 0.49 N {50 gf})**


| Actuator   | Hinge position<br>(far from plunger) | Contact form   |                |                |
|--|--------------------------------------|----------------|----------------|----------------|
|  |                                      | SPDT           | SPST-NC        | SPST-NO        |
| Plunger                     | ---                                  | D3V-6G-1□3-Δ   | D3V-6G-2□3-Δ   | D3V-6G-3□3-Δ   |
| Short hinge lever           | Internal                             | D3V-6G1-1□3-Δ  | D3V-6G1-2□3-Δ  | D3V-6G1-3□3-Δ  |
|  | External (M)                         | D3V-6G1M-1□3-Δ | D3V-6G1M-2□3-Δ | D3V-6G1M-3□3-Δ |
| Hinge lever                 | Internal                             | D3V-6G2-1□3-Δ  | D3V-6G2-2□3-Δ  | D3V-6G2-3□3-Δ  |
|  | External (M)                         | D3V-6G2M-1□3-Δ | D3V-6G2M-2□3-Δ | D3V-6G2M-3□3-Δ |
| Long hinge lever            | Internal                             | D3V-6G3-1□3-Δ  | D3V-6G3-2□3-Δ  | D3V-6G3-3□3-Δ  |
|  | External (M)                         | D3V-6G3M-1□3-Δ | D3V-6G3M-2□3-Δ | D3V-6G3M-3□3-Δ |
| Simulated roller lever    | Internal                             | D3V-6G4-1□3-Δ  | D3V-6G4-2□3-Δ  | D3V-6G4-3□3-Δ  |
|  | External (M)                         | D3V-6G4M-1□3-Δ | D3V-6G4M-2□3-Δ | D3V-6G4M-3□3-Δ |
| Short hinge roller lever  | Internal                             | D3V-6G5-1□3-Δ  | D3V-6G5-2□3-Δ  | D3V-6G5-3□3-Δ  |
|  | External (M)                         | D3V-6G5M-1□3-Δ | D3V-6G5M-2□3-Δ | D3V-6G5M-3□3-Δ |
| Hinge roller lever        | Internal                             | D3V-6G6-1□3-Δ  | D3V-6G6-2□3-Δ  | D3V-6G6-3□3-Δ  |
|  | External (M)                         | D3V-6G6M-1□3-Δ | D3V-6G6M-2□3-Δ | D3V-6G6M-3□3-Δ |

**Note:** The □ in the model number is for the terminal code.  
 A: Solder/quick-connect terminals (#187)  
 C2: Quick-connect terminals (#187)  
 C: Quick-connect terminals (#250)  
 The Δ in the model number is for the mounting hole size.  
 None: 3.1 mm  
 K: 2.9 mm

**01 A (OF: 0.49 N {50 gf})**

| Actuator   | Hinge position<br>(far from plunger) | Contact form   |                |                |
|--|--------------------------------------|----------------|----------------|----------------|
|  |                                      | SPDT           | SPST-NC        | SPST-NO        |
| Plunger                   | ---                                  | D3V-01-1□3-Δ   | D3V-01-2□3-Δ   | D3V-01-3□3-Δ   |
| Short hinge lever         | Internal                             | D3V-011-1□3-Δ  | D3V-011-2□3-Δ  | D3V-011-3□3-Δ  |
|  | External (M)                         | D3V-011M-1□3-Δ | D3V-011M-2□3-Δ | D3V-011M-3□3-Δ |
| Hinge lever               | Internal                             | D3V-012-1□3-Δ  | D3V-012-2□3-Δ  | D3V-012-3□3-Δ  |
|  | External (M)                         | D3V-012M-1□3-Δ | D3V-012M-2□3-Δ | D3V-012M-3□3-Δ |
| Long hinge lever          | Internal                             | D3V-013-1□3-Δ  | D3V-013-2□3-Δ  | D3V-013-3□3-Δ  |
|  | External (M)                         | D3V-013M-1□3-Δ | D3V-013M-2□3-Δ | D3V-013M-3□3-Δ |
| Simulated roller lever    | Internal                             | D3V-014-1□3-Δ  | D3V-014-2□3-Δ  | D3V-014-3□3-Δ  |
|  | External (M)                         | D3V-014M-1□3-Δ | D3V-014M-2□3-Δ | D3V-014M-3□3-Δ |
| Short hinge roller lever  | Internal                             | D3V-015-1□3-Δ  | D3V-015-2□3-Δ  | D3V-015-3□3-Δ  |
|  | External (M)                         | D3V-015M-1□3-Δ | D3V-015M-2□3-Δ | D3V-015M-3□3-Δ |
| Hinge roller lever        | Internal                             | D3V-016-1□3-Δ  | D3V-016-2□3-Δ  | D3V-016-3□3-Δ  |
|  | External (M)                         | D3V-016M-1□3-Δ | D3V-016M-2□3-Δ | D3V-016M-3□3-Δ |

**01 A (OF: 0.25 N {25 gf})**

| Actuator  | Hinge position<br>(far from plunger) | Contact form |              |              |
|---|--------------------------------------|--------------|--------------|--------------|
|   |                                      | SPDT         | SPST-NC      | SPST-NO      |
| Plunger  | ---                                  | D3V-01-1□2-Δ | D3V-01-2□2-Δ | D3V-01-3□2-Δ |

**Note:** The □ in the model number is for the terminal code.  
 A: Solder/quick-connect terminals (#187)  
 C2: Quick-connect terminals (#187)  
 C: Quick-connect terminals (#250)  
 The Δ in the model number is for the mounting hole size.  
 None: 3.1 mm  
 K: 2.9 mm

# Specifications

## ■ Ratings

| Type   | Rated voltage | Non-inductive load |    |           |    | Inductive load |    |            |    |
|--------|---------------|--------------------|----|-----------|----|----------------|----|------------|----|
|        |               | Resistive load     |    | Lamp load |    | Inductive load |    | Motor load |    |
|        |               | NC                 | NO | NC        | NO | NC             | NO | NC         | NO |
| D3V-21 | 250 VAC       | 21 A               |    | 3 A       |    | 12 A           |    | 4 A        |    |
|        | 8 VDC         | 21 A               |    | 5 A       |    | 12 A           |    | 7 A        |    |
|        | 30 VDC        | 14 A               |    | 5 A       |    | 12 A           |    | 5 A        |    |
|        | 125 VDC       | 0.6 A              |    | 0.1 A     |    | 0.6 A          |    | 0.1 A      |    |
|        | 250 VDC       | 0.3 A              |    | 0.05 A    |    | 0.3 A          |    | 0.05 A     |    |
| D3V-16 | 250 VAC       | 16 A               |    | 2 A       |    | 10 A           |    | 3 A        |    |
|        | 8 VDC         | 16 A               |    | 4 A       |    | 10 A           |    | 6 A        |    |
|        | 30 VDC        | 10 A               |    | 4 A       |    | 10 A           |    | 4 A        |    |
|        | 125 VDC       | 0.6 A              |    | 0.1 A     |    | 0.6 A          |    | 0.1 A      |    |
|        | 250 VDC       | 0.3 A              |    | 0.05 A    |    | 0.3 A          |    | 0.05 A     |    |
| D3V-11 | 250 VAC       | 11 A               |    | 1.5 A     |    | 6 A            |    | 2 A        |    |
|        | 8 VDC         | 11 A               |    | 3 A       |    | 6 A            |    | 3 A        |    |
|        | 30 VDC        | 6 A                |    | 3 A       |    | 6 A            |    | 3 A        |    |
|        | 125 VDC       | 0.6 A              |    | 0.1 A     |    | 0.6 A          |    | 0.1 A      |    |
|        | 250 VDC       | 0.3 A              |    | 0.05 A    |    | 0.3 A          |    | 0.05 A     |    |
| D3V-6  | 250 VAC       | 6 A                |    | 3 A       |    | 4 A            |    | ---        |    |
|        | 8 VDC         | 6 A                |    | 3 A       |    | 4 A            |    | ---        |    |
|        | 30 VDC        | 6 A                |    | 3 A       |    | 4 A            |    | ---        |    |
|        | 125 VDC       | 0.4 A              |    | 0.1 A     |    | 0.4 A          |    | ---        |    |
|        | 250 VDC       | 0.3 A              |    | 0.05 A    |    | 0.2 A          |    | ---        |    |
| D3V-01 | 125 VAC       | 0.1 A              |    | ---       |    | ---            |    | ---        |    |
|        | 8 VDC         | 0.1 A              |    | ---       |    | ---            |    | ---        |    |
|        | 30 VDC        | 0.1 A              |    | ---       |    | ---            |    | ---        |    |

**Note: 1.** The above current values are the normal current values of models with a contact gap of 1 mm (gap F), which vary with the normal current values of models with a contact gap of 0.5 mm (gap G).

**2.** Inductive load has a power factor of 0.4 min. (AC) and a time constant of 7 ms max. (DC).

**3.** Lamp load has an inrush current of 10 times the steady-state current.

**4.** Motor load has an inrush current of 6 times the steady-state current.

**5.** The ratings values apply under the following test conditions:

Ambient temperature: 20±2°C

Ambient humidity: 65±5%

Operating frequency: 30 operations/min



## ■ Characteristics

|   |   |
|---|---|
| Operating speed                             | 0.1 mm to 1 m/s (plunger models without levers)   |
| Operating frequency                         | Mechanical: 600 operations/min<br>Electrical: 60 operations/min   |
| Insulation resistance                       | 100 MΩ min. (at 500 VDC)  |
| Contact resistance (initial values)         | D3V-21: 50 mΩ max.<br>D3V-16, D3V-11, D3V-6: 30 mΩ max.<br>D3V-01,      0.49 N {50 gf}: 50 mΩ max.<br>0.25 N {25 gf}: 100 mΩ max.   |
| Dielectric strength (see note 1)            | 1,000 VAC, 50/60 Hz for 1 min between terminals of the same polarity<br>2,000 VAC, 50/60 Hz for 1 min between current-carrying metal parts and ground, and between each terminal and non-current-carrying metal parts     |
| Vibration resistance (see note 2)           | Malfunction: 10 to 55 Hz, 1.5-mm double amplitude   |
| Shock resistance (see note 2)               | Destruction: 400 m/s <sup>2</sup> {approx. 40G} max.<br>Malfunction: 100 m/s <sup>2</sup> {approx. 10G} max.  |
| Durability (see note 3)                     | Mechanical: 10,000,000 operations min.<br>Electrical:    D3V-21:       50,000 operations min.<br>D3V-16:       100,000 operations min.<br>D3V-11:       200,000 operations min.<br>D3V-6, D3V-01: 500,000 operations min. |
| Degree of protection                        | IEC IP00  |
| Degree of protection against electric shock | Class I   |
| Proof tracking index (PTI)                  | 250   |
| Ambient operating temperature               | D3V-21, D3V-01:       -25°C to 85°C (with no icing)<br>D3V-16, D3V-11, D3V-6: -25°C to 105°C (with no icing)  |
| Ambient operating humidity                  | 85% max. (for 5°C to 35°C)  |
| Weight                                      | Approx. 6.2 g (plunger models without levers)   |

- Note:** 1. The dielectric strength values shown in the table are for models with a Separator.  
2. For plunger models, the above values apply for use at both the free position and total travel position. For lever models, they apply at the total travel position.  
3. For testing conditions, contact your OMRON sales representative.

## ■ Approved Standards

### **UL1054 (File No. E41515) CSA C22.2 No.55 (File No. LR21642)** **(Only standard ratings are listed.)**

| Rated voltage | D3V-21G                     | D3V-16       | D3V-16G      | D3V-11       | D3V-11G      | D3V-6       | D3V-6G      | D3V-01 |
|---------------|-----------------------------|--------------|--------------|--------------|--------------|-------------|-------------|--------|
| 125 VAC       | 21 A, 1/2 HP<br>(See note.) | 16 A, 1/2 HP | 16 A, 1/2 HP | 11 A, 1/2 HP | 11 A, 1/2 HP | 6 A, 1/4 HP | 6 A, 1/4 HP | 0.1 A  |
| 250 VAC       | 21 A, 1/2 HP<br>(See note.) | 16 A, 1/2 HP | 16 A, 1/2 HP | 11 A, 1/2 HP | 11 A, 1/2 HP | 6 A, 1/4 HP | 6 A, 1/4 HP | ---    |
| 125 VDC       | ---                         | 0.6 A        | 0.1 A        | 0.6 A        | 0.1 A        | ---         | ---         | ---    |
| 250 VDC       | ---                         | 0.3 A        | ---          | 0.3 A        | ---          | ---         | ---         | ---    |

**Note:** Approval projected.

### **EN 61058-1: 1992+A1: 1993 (License No. 119151L)**

| Rated voltage | D3V-21G  | D3V-16   | D3V-11   | D3V-6   | D3V-01 |
|---------------|----------|----------|----------|---------|--------|
| 125 VAC       | ---      | ---      | ---      | ---     | 0.1 A  |
| 250 VAC       | 20 (4) A | 16 (3) A | 11 (3) A | 6 (2) A | ---    |

Testing conditions: 50,000 operations, T85 (0°C to 85°C) for D3V-21/D3V-01, T105 (0°C to 105°C) for D3V-16/D3V-11/D3V-6

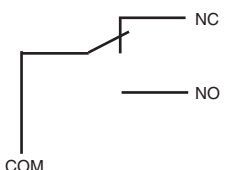
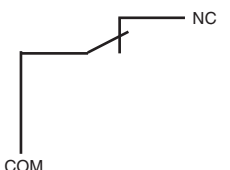
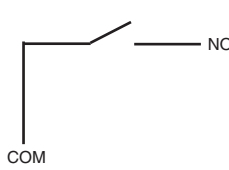
| Rated voltage | D3V-21G  |
|---------------|----------|
| 250 VAC       | 21 (8) A |

Testing conditions: 10,000 operations, T85 (0°C to 85°C)

## Contact Specifications

| Item                    |                      | D3V-21          | D3V-16                                   | D3V-11    | D3V-6     | D3V-01        |
|-------------------------|----------------------|-----------------|--|-----------|-----------|---------------|
| Contact                 | Specification        | Rivet           |  |           |           | Crossbar      |
|                         | Material             | Silver alloy    |  |           |           | Gold alloy    |
|                         | Gap (standard value) | 0.5 mm          | 1 mm (F gap type) or 0.5 mm (G gap type) |           |           | 1.0 mm        |
| Inrush current          | NC                   | 50 A max.       | 40 A max.                                | 24 A max. | 15 A max. | ---           |
|                         | NO                   |                 |  |           |           |               |
| Minimum applicable load |                      | 160 mA at 5 VDC |  |           |           | 1 mA at 5 VDC |

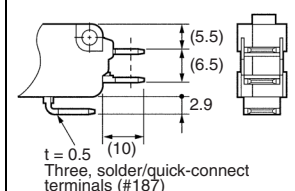
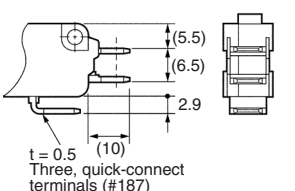
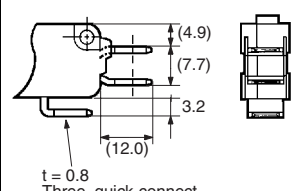
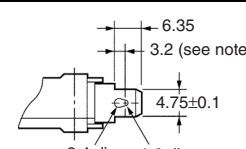
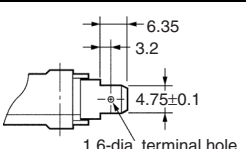
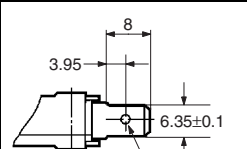
## Contact Form

| SPDT  | SPST-NC   | SPST-NO   |
|---|---|---|
|  |  |  |

## Dimensions

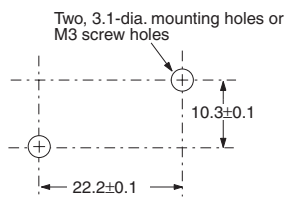
Unit: mm (inch)

## Terminals

| Terminal type       | Solder/Quick-connect Terminal (#187) (A)  | Quick-connect Terminal (#187) (C2)   | Quick-connect Terminal (#250) (C)  |
|---------------------|---|--|--|
| COM                 |  <p>t = 0.5 (10)<br/>Three, solder/quick-connect terminals (#187)</p>  |  <p>t = 0.5 (10)<br/>Three, quick-connect terminals (#187)</p> |  <p>t = 0.8<br/>Three, quick-connect terminals (#250)</p> |
| Terminal dimensions |  <p>Note: Indicates the length to the center of the 1.6-dia. holes</p> |  <p>1.6-dia. terminal hole</p>                                  |  <p>1.65-dia. terminal hole</p>                           |

**Note:** The table above is for the SPDT contact specifications. Two terminals will be available for SPST-NO or SPST-NC contact specifications. For terminal positions, refer to the above *Contact Form*.

## Mounting Holes

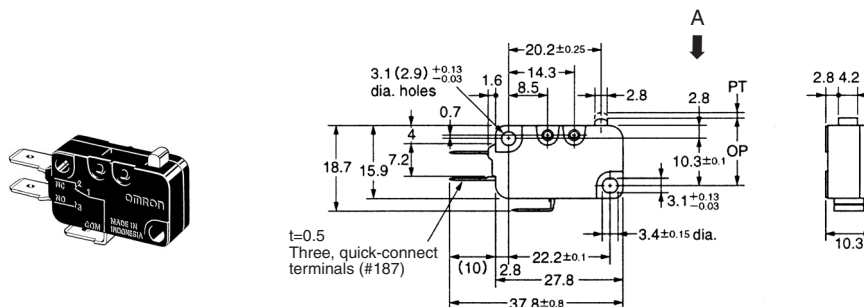


## ■ Dimensions and Operating Characteristics

- Note:** 1. All units are in millimeters unless otherwise indicated.  
 2. Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.  
 3. The following illustrations and drawings are for quick-connect terminals (#187) (terminals C2). D3V models incorporate terminals A and C. These models are different from #187 models in terminal size only. Terminals A and C are omitted from the following drawings. Refer to *Terminals* on page 995 for these terminals.  
 4. The following illustrations and drawings are for models with the hinge position set to external/further than plunger. Models with the hinge position set to internal position are not shown here. For details about the internal position models, contact your OMRON sales representative. Operating characteristics are the same for these two types of models.  
 5. The □ in the model number is for the terminal code.  
 6. The Δ in the model number is for the mounting hole size.  
 The hole size in the following illustrations of models with a suffix “K” in the Δ is 2.9 mm.  
 7. The operating characteristics are for operation in the A direction ( ↓ ).

### Plunger Models

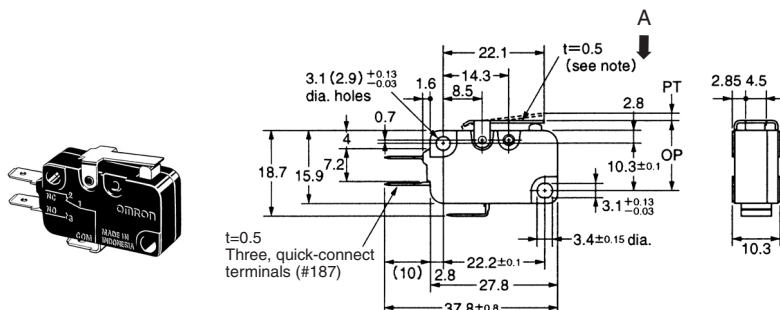
- D3V-21G-1□4-Δ
- D3V-16-1□5-Δ
- D3V-11-1□5-Δ
- D3V-11-1□4-Δ
- D3V-6-1□4-Δ
- D3V-6G-1□3-Δ
- D3V-01-1□2-Δ
- D3V-01-1□3-Δ



| Model   | D3V-21G-1□4A-Δ | D3V-16-1□5-Δ<br>D3V-11-1□5-Δ               | D3V-11-1□4-Δ<br>D3V-6-1□4-Δ | D3V-6G-1□3-Δ  | D3V-01-1□3-Δ  | D3V-01-1□2-Δ  |
|---------|----------------|--|-----------------------------|---------------|---------------|---------------|
| OF max. | 125 g {1.23 N} | 200 g {1.96 N}                             | 100 g {0.98 N}              | 50 g {0.49 N} | 50 g {0.49 N} | 25 g {0.25 N} |
| RF min. | 20 g {0.20 N}  | 50 g {0.49 N}                              | 15 g {0.15 N}               | 5 g {0.05 N}  | 5 g {0.05 N}  | 3 g {0.03 N}  |
| PT max. | 1.2 mm         | 1.2 mm                                     |                             |               | 1.2 mm        |               |
| OT min. | 1.0 mm         | 1.0 mm                                     |                             |               | 1.0 mm        |               |
| MD max. | 0.3 mm         | 0.4 mm (F gap type) or 0.3 mm (G gap type) |                             |               | 0.4 mm        |               |
| OP      | 14.7±0.4 mm    |  |                             |               |               |               |

### Short Hinge Lever Models

- D3V-21GM-1□4A-Δ
- D3V-161M-1□5-Δ
- D3V-111M-1□5-Δ
- D3V-111M-1□4-Δ
- D3V-61M-1□4-Δ
- D3V-6G1M-1□3-Δ
- D3V-01-1□2-Δ
- D3V-01M1-1□3-Δ

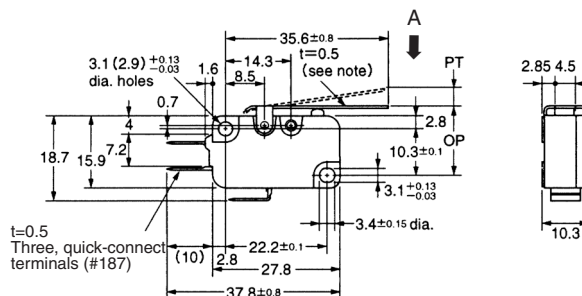


**Note:** Stainless-steel lever.

| Model   | D3V-21G1M-1□4A-Δ | D3V-161M-1□5-Δ<br>D3V-111M-1□5-Δ           | D3V-111M-1□4-Δ<br>D3V-61M-1□4-Δ | D3V-6G1M-1□3-Δ | D3V-01M1-1□3-Δ |
|---------|------------------|--|---------------------------------|----------------|----------------|
| OF max. | 125 g {1.23 N}   | 200 g {1.96 N}                             | 100 g {0.98 N}                  | 50 g {0.49 N}  |                |
| RF min. | 20 g {0.20 N}    | 50 g {0.49 N}                              | 15 g {0.15 N}                   | 5 g {0.05 N}   |                |
| PT max. | 1.6 mm           | 1.6 mm                                     |                                 |                | 1.6 mm         |
| OT min. | 0.8 mm           | 0.8 mm                                     |                                 |                | 0.8 mm         |
| MD max. | 0.5 mm           | 0.6 mm (F gap type) or 0.5 mm (G gap type) |                                 |                | 0.6 mm         |
| OP      | 15.2±0.5 mm      |  |                                 |                |                |

## Hinge Lever Models

- D3V-21G2M-1□4A-Δ
- D3V-162M-1□5-Δ
- D3V-112M-1□5-Δ
- D3V-112M-1□4-Δ
- D3V-62M-1□4-Δ
- D3V-6G2M-1□3-Δ
- D3V-012M-1□3-Δ

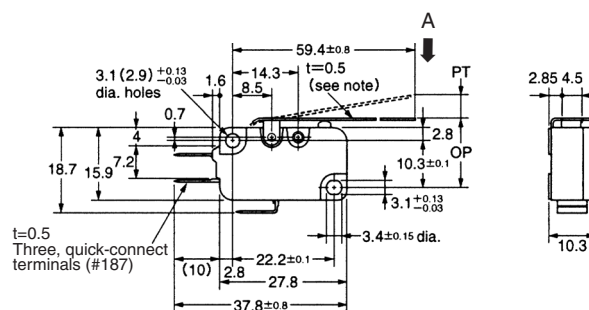


Note: Stainless-steel lever.

| Model   | D3V-21G2M-1□4A-Δ | D3V-162M-1□5-Δ<br>D3V-112M-1□5-Δ           | D3V-112M-1□4-Δ<br>D3V-62M-1□4-Δ | D3V-6G2M-1□3-Δ | D3V-012M-1□3-Δ |
|---------|------------------|--|---------------------------------|----------------|----------------|
| OF max. | 80 g {0.78 N}    | 125 g {1.23 N}                             | 60 g {0.59 N}                   |                | 30 g {0.29 N}  |
| RF min. | 6 g {0.06 N}     | 14 g {0.14 N}                              | 6 g {0.06 N}                    |                | ---            |
| PT max. | 4.0 mm           | 4.0 mm                                     |                                 |                | 4.0 mm         |
| OT min. | 1.6 mm           | 1.6 mm                                     |                                 |                | 1.6 mm         |
| MD max. | 0.8 mm           | 1.5 mm (F gap type) or 0.8 mm (G gap type) |                                 |                | 1.5 mm         |
| OP      | 15.2±1.2 mm      |  |                                 |                |                |

## Long Hinge Lever Models

- D3V-21G3M-1□4A-Δ
- D3V-163M-1□5-Δ
- D3V-113M-1□5-Δ
- D3V-113M-1□4-Δ
- D3V-63M-1□4-Δ
- D3V-6G3M-1□3-Δ
- D3V-013M-1□3-Δ

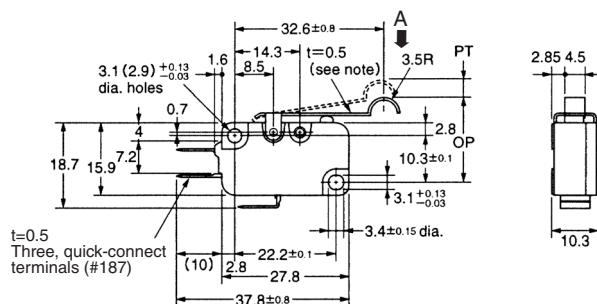


Note: Stainless-steel lever.

| Model   | D3V-21G3M-1□4A-Δ                        | D3V-163M-1□5-Δ<br>D3V-113M-1□5-Δ           | D3V-113M-1□4-Δ<br>D3V-63M-1□4-Δ            | D3V-6G3M-1□3-Δ | D3V-013M-1□3-Δ |
|---------|---|--|--|----------------|----------------|
| OF max. | 45 g {0.44 N}                           | 70 g {0.69 N}                              | 35 g {0.34 N}                              | 20 g {0.20 N}  |                |
| RF min. | 3 g {0.03 N}                            | 6 g {0.06 N}                               | ---  | ---            |                |
| PT max. | 9.0 mm                                  | 9.0 mm                                     | 9.0 mm                                     |                | 9.0 mm         |
| OT min. | 2.0 mm                                  | 2.0 mm                                     | 3.2 mm                                     |                | 3.2 mm         |
| MD max. | 2.0 mm                                  | 2.8 mm (F gap type) or 2.0 mm (G gap type) | 2.8 mm (F gap type) or 2.0 mm (G gap type) |                | 2.8 mm         |
| OP      | 15.2 <sup>+2.6</sup> <sub>-3.2</sub> mm |  | 15.2±2.6 mm                                |                |                |

## Simulated Roller Lever Models

- D3V-21G3M-1□4A-Δ
- D3V-164M-1□5-Δ
- D3V-114M-1□5-Δ
- D3V-114M-1□4-Δ
- D3V-64M-1□4-Δ
- D3V-6G4M-1□3-Δ
- D3V-014M-1□3-Δ

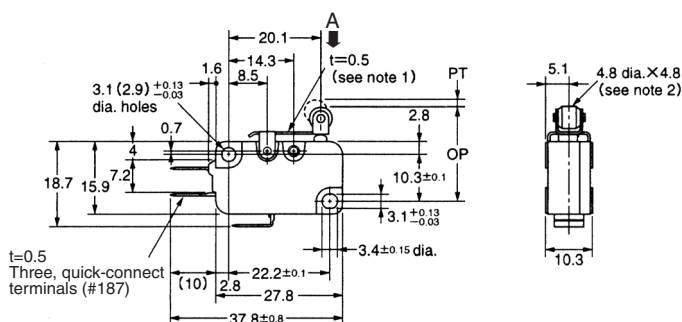


Note: Stainless-steel lever.

| Model   | D3V-21G4M-1□4A-Δ | D3V-164M-1□5-Δ<br>D3V-114M-1□5-Δ           | D3V-114M-1□4-Δ<br>D3V-64M-1□4-Δ | D3V-6G4M-1□3-Δ | D3V-014M-1□3-Δ |
|---------|------------------|--|---------------------------------|----------------|----------------|
| OF max. | 85 g {0.83 N}    | 125 g {1.23 N}                             | 60 g {0.59 N}                   | 30 g {0.29 N}  |                |
| RF min. | 7 g {0.07 N}     | 14 g {0.14 N}                              | 6 g {0.06 N}                    | ---            |                |
| PT max. | 4.0 mm           | 4.0 mm                                     |                                 |                | 4.0 mm         |
| OT min. | 1.6 mm           | 1.6 mm                                     |                                 |                | 1.6 mm         |
| MD max. | 1.4 mm           | 1.5 mm (F gap type) or 0.8 mm (G gap type) |                                 |                | 1.5 mm         |
| OP      | 18.7±1.2 mm      |  |                                 |                |                |

## Short Hinge Roller Lever Models

- D3V-21G5M-1□4A-Δ
- D3V-165M-1□5-Δ
- D3V-115M-1□5-Δ
- D3V-115M-1□4-Δ
- D3V-65M-1□4-Δ
- D3V-6G5M-1□3-Δ
- D3V-015M-1□3-Δ

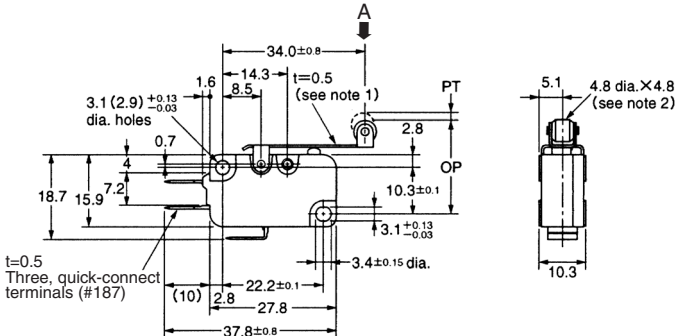


- Note: 1. Stainless-steel lever.  
2. Oilless polyacetal resin roller.

| Model   | D3V-21G5M-1□4A-Δ | D3V-165M-1□5-Δ<br>D3V-115M-1□5-Δ           | D3V-115M-1□4-Δ<br>D3V-65M-1□4-Δ | D3V-6G5M-1□3-Δ | D3V-015M-1□3-Δ |
|---------|------------------|--|---------------------------------|----------------|----------------|
| OF max. | 145 g {1.42 N}   | 240 g {2.35 N}                             | 120 g {1.18 N}                  | 60 g {0.59 N}  |                |
| RF min. | 20 g {0.2 N}     | 50 g {0.49 N}                              | 15 g {0.15 N}                   | 6 g {0.06 N}   |                |
| PT max. | 1.6 mm           | 1.6 mm                                     |                                 |                | 1.6 mm         |
| OT min. | 0.8 mm           | 0.8 mm                                     |                                 |                | 0.8 mm         |
| MD max. | 0.5 mm           | 0.6 mm (F gap type) or 0.5 mm (G gap type) |                                 |                | 0.6 mm         |
| OP      | 20.7±0.6 mm      |  |                                 |                |                |

**Hinge Roller Lever Models**

- D3V-21G6M-1□4A-Δ
- D3V-166M-1□5-Δ
- D3V-116M-1□5-Δ
- D3V-116M-1□4-Δ
- D3V-66M-1□4-Δ
- D3V-6G6M-1□3-Δ
- D3V-016M-1□3-Δ



**Note:** 1. Stainless-steel lever.  
 2. Oilless polyacetal resin roller.

| Model   | D3V-21G6M-1□4A-Δ | D3V-166M-1□5-Δ<br>D3V-116M-1□5-Δ           | D3V-116M-1□4-Δ<br>D3V-66M-1□4-Δ | D3V-6G6M-1□3-Δ | D3V-016M-1□3-Δ |
|---------|------------------|--|---------------------------------|----------------|----------------|
| OF max. | 80 g {0.79 N}    | 125 g {1.23 N}                             | 60 g {0.59 N}                   | 30 g {0.29 N}  |                |
| RF min. | 5 g {0.05 N}     | 14 g {0.14 N}                              | 6 g {0.06 N}                    | ---            |                |
| PT max. | 4.0 mm           | 4.0 mm                                     |                                 |                | 4.0 mm         |
| OT min. | 1.6 mm           | 1.6 mm                                     |                                 |                | 1.6 mm         |
| MD max. | 0.8 mm           | 1.5 mm (F gap type) or 0.8 mm (G gap type) |                                 |                | 1.5 mm         |
| OP      | 20.7±1.2 mm      |  |                                 |                |                |

# Precautions

## ■ Cautions

### Handling

Be careful not to drop the switch. Doing so may cause damage to the switch's internal components because it is designed for a small load.

## ■ Correct Use

### Mounting

Use two M3 mounting screws with an appropriate screwdriver to mount the switch. Tighten the screws to a torque of 0.39 to 0.59 N • m {4 to 6 kgf • cm}.

### Mounting Direction

Mount lever-operated switches with a maximum operating force of 0.49 N in a direction where the actuator weight will not be applied to the switch. Since the switch is designed for a small load, its resetting force is small. Therefore, resetting failure may occur if unnecessary load is applied to the switch.

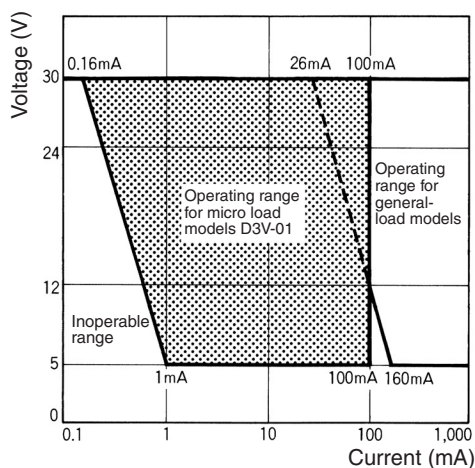
### Insulation Distance

According to EN61058-1, the minimum insulation thickness for this switch should be 1.1 mm and minimum clearance distance between the terminal and mounting plate should be 1.9 mm. If the insulation distance cannot be provided in the product incorporating the switch, either use a switch with insulation barrier or use a Separator to ensure sufficient insulation distance.

### Using Micro Loads

Using a model for ordinary loads to open or close the contact of a micro load circuit may result faulty contact. Use models that operate within the operating range shown below, if inrush current occurs when the contact is opened or closed, it may increase contact wear and so decrease life expectancy. Therefore, insert a contact protection circuit where necessary.

The minimum applicable load is the N-level reference value. This value indicates the malfunction reference level for the reliability level of 60% ( $\lambda 60$ ). The equation,  $\lambda 60 = 0.5 \times 10^{-6}/\text{operations}$  indicates that the estimated malfunction rate is less than 1/2,000,000 operations with a reliability level of 60%.



### Solder Terminal Approval Conditions

Use of soldering iron for normal soldering is acceptable.  
Soldering hook holes version available.

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Soldering terminal types 1 and 2 are met.

MEMO

A large grid of dashed lines for taking notes, consisting of 20 columns and 25 rows of squares.



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