

V9 Series

Miniature Basic DC Switch



DESCRIPTION

The V9 Series dc switch is a cost-effective, reliable solution for position detection in applications that both control the primary circuit and require a contact air gap of greater than 3 mm [0.12 in].

The V9 Series dc switch offers a wide range of standard offerings, including a choice of seven actuators, global approvals (UL, cUL, ENEC/VDE), and two different quick-connect termination styles.

FEATURES

- > 3 mm [0.12 in] contact air gap
- High electrical rating up to 25.1 A
- Rock wipe contact action
- Seven (7) standard actuators
- Wide over-travel dimension
- Long-life coil spring
- Five (5) standard housing materials

BENEFITS

- Enables user to control a primary circuit
- Ability to directly control high electric loads
- Self-cleaning operation delivers high reliability
- Potential to solve a wide range of customer needs
- Improves life of the switch by reducing potential mechanical damage to switch
- Delivers enhanced reliability
- Housing material options meet T85 °C to T200 °C

POTENTIAL APPLICATIONS

- Power tools
- Home appliances
- Vending machines
- Gaming equipment
- Information technology equipment

V9 Series

SPECIFICATIONS

| | |
|---------------------------------------|-------------------------------------|
| Insulation resistance (@ 500 Vdc) | 100 mOhm min. |
| Dielectric strength | AC 1000 Vrms (50 Hz to 60 Hz) |
| Contact resistance (initial) | 30 mOhm max. |
| Operating frequency – mechanical | 300 operations per minute max. |
| Operating frequency – electrical | 10 to 30 operations per minute max. |
| Operating speed | 0,1 mm per 1 msec max. |
| Service life – mechanical | 5 million operations minimum |
| Service life – electrical | 6,000 to 100,000 operations minimum |
| Storage temperature | -25 °C to 100 °C [-13 °F to 212 °F] |
| Storage humidity | 85 %RH max. |
| Approvals (apply to released options) | UL, cUL, ENEC/VDE |

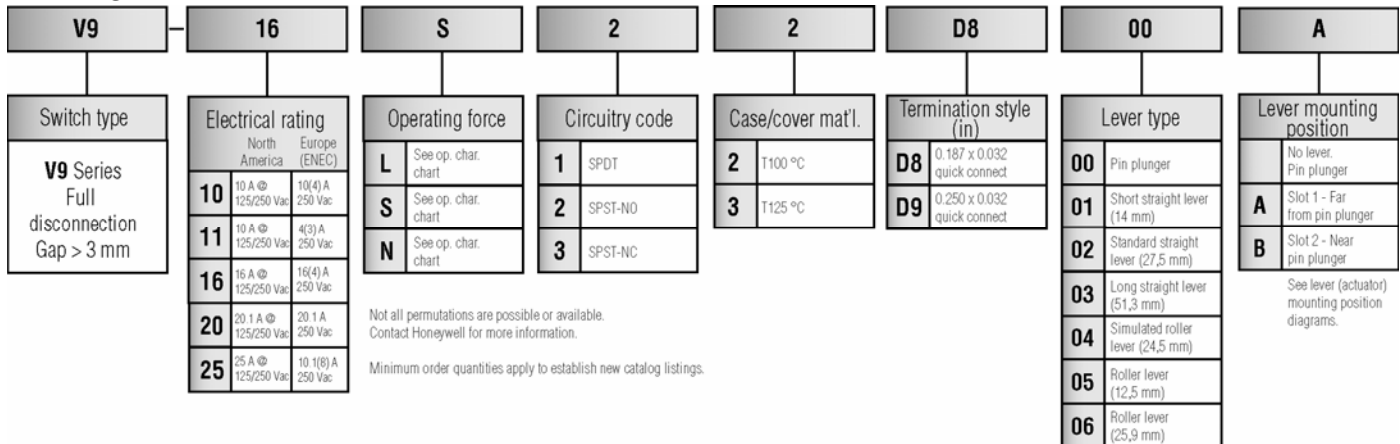
ELECTRICAL RATINGS

| | |
|----|---|
| 10 | cUL: 10 A 1/2 HP 125 Vac/250 Vac ENEC/VDE: 10(4) A 250 Vac T100 available |
| 11 | cUL: 10 A 1/2 HP 125 Vac/250 Vac ENEC/VDE: 4(3) A 250 Vac T125 available |
| 16 | cUL: 16 A 1/2 HP 125 Vac/250 Vac ENEC/VDE: 16(4) A 250 Vac T125 available |
| 20 | cUL: 20.1 A 1 HP 125 Vac/250 Vac ENEC/VDE: 20.1 A 250 Vac T125 available |
| 25 | cUL: 25 A 1 HP 125 Vac/250 Vac ENEC/VDE: 25.1 A, 10.1(8) A 250 Vac T125 available |

OPERATING CHARACTERISTICS

| Part Number | Lever/Position | OF (g) max. | | | OP mm [in] | PT max. mm [in] | OT min. mm [in] | MD max. mm [in] | |
|-------------|----------------------|-------------|-----|-----|------------|---------------------------|-----------------|-----------------|-------------|
| | | L | S | N | | | | | |
| V9-****D*00 | Pin plunger | A | 190 | 510 | 395 | 14,4 ± 0,5 [0.57 ± 0.02] | 1,90 [0.07] | 0,70 [0.03] | 1,20 [0.05] |
| | | B | – | – | – | – | – | – | – |
| V9-****D*01 | Short straight lever | A | 190 | 510 | – | 15,0 ± 0,8 [0.59 ± 0.03] | 2,40 [0.09] | 0,50 [0.02] | 1,40 [0.05] |
| | | B | 135 | 295 | – | 15,0 ± 1,2 [0.59 ± 0.05] | 4,10 [0.16] | 0,90 [0.04] | 1,70 [0.07] |
| V9-****D*02 | Std straight lever | A | 100 | 260 | – | 15,0 ± 1,52 [0.59 ± 0.06] | 4,80 [0.19] | 1,00 [0.04] | 2,70 [0.11] |
| | | B | 80 | 150 | – | 15,0 ± 2,32 [0.59 ± 0.09] | 8,00 [0.31] | 1,70 [0.07] | 3,30 [0.13] |
| V9-****D*03 | Long straight lever | A | 52 | 140 | – | 15,0 ± 2,82 [0.59 ± 0.11] | 9,00 [0.35] | 1,87 [0.07] | 5,07 [0.20] |
| | | B | 46 | 80 | – | 15,0 ± 4,32 [0.59 ± 0.17] | 15,0 [0.59] | 3,18 [0.13] | 6,20 [0.24] |
| V9-****D*04 | Sim. roller lever | A | 108 | 290 | – | 18,4 ± 1,3 [0.72 ± 0.05] | 4,30 [0.17] | 0,90 [0.04] | 2,40 [0.09] |
| | | B | 88 | 170 | – | 18,4 ± 2,0 [0.72 ± 0.08] | 7,20 [0.28] | 1,50 [0.06] | 2,90 [0.11] |
| V9-****D*05 | Roller lever | A | 190 | 510 | – | 20,4 ± 0,7 [0.80 ± 0.03] | 2,20 [0.09] | 0,40 [0.02] | 1,20 [0.05] |
| | | B | 145 | 330 | – | 20,4 ± 1,0 [0.80 ± 0.04] | 3,70 [0.15] | 0,80 [0.03] | 1,50 [0.06] |
| V9-****D*06 | Long roller lever | A | 102 | 275 | – | 20,4 ± 1,4 [0.80 ± 0.06] | 4,50 [0.18] | 0,90 [0.04] | 2,60 [0.10] |
| | | B | 84 | 160 | – | 20,4 ± 2,2 [0.80 ± 0.09] | 7,60 [0.30] | 1,60 [0.06] | 3,10 [0.12] |

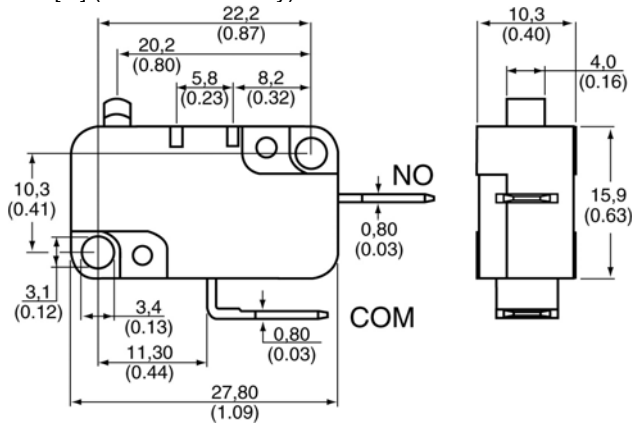
PART NUMBER TREE



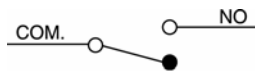
Miniature Basic DC Switch

MOUNTING DIMENSIONS

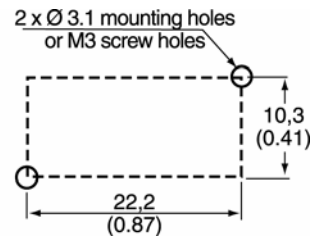
mm [in] (for reference only)



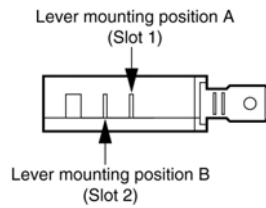
CIRCUITRY



MOUNTING HOLES

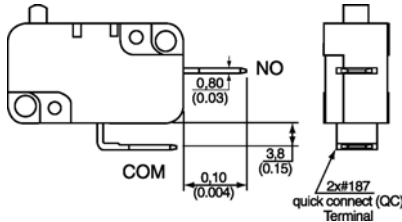


LEVER (ACTUATOR) MOUNTING POSITION

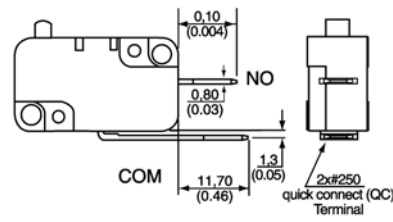


TERMINAL TYPES

Quick connect terminal 0.187 in [4,75 mm] (D8)

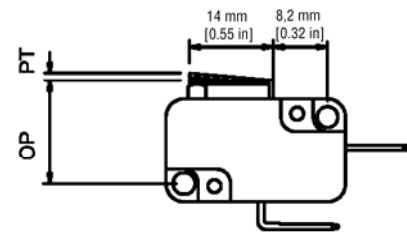


Quick connect terminal 0.250 in [6,35 mm] (D9)

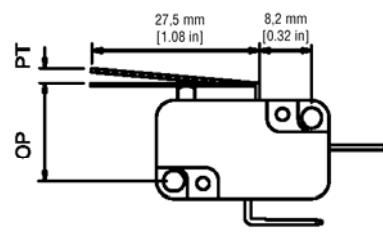


LEVER TYPES

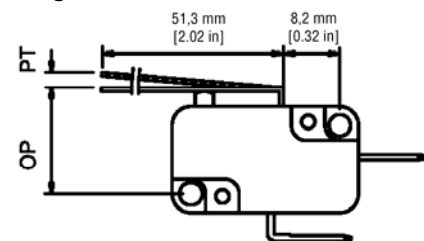
Short lever



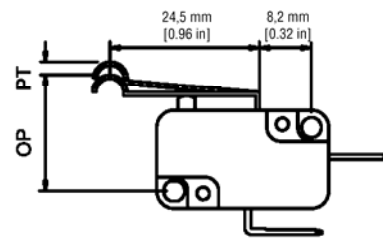
Standard lever



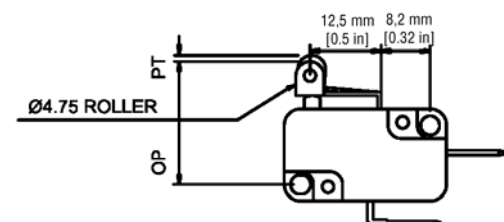
Long lever



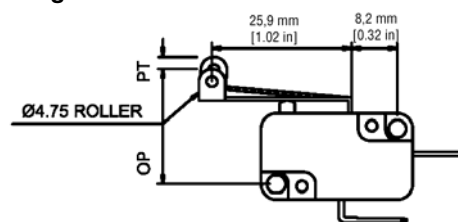
Simulated roller lever



Roller lever



Long roller lever



ORDER GUIDE (ACTIVE LISTINGS)

| Catalog Listing | Description |
|-----------------|--|
| V9-11S43D800 | V9 miniature basic switch – pin plunger, 10 A 125/250 Vac, 0.187 x 0.032 QC terminals |
| V9-16S23D800 | V9 miniature basic switch – pin plunger, 10 A 125/250 Vac, 0.187 x 0.032 QC terminals |
| V9-16S43D905A | V9 miniature basic switch – roller lever (slot far from pin plunger), 10 A 125/250 Vac, 0.250 x 0.032 QC terminals |
| V9-20S23D900 | V9 miniature basic switch – pin plunger, 20.1 A 125/250 Vac, 0.250 x 0.032 QC terminals |
| V9-20S43D900 | V9 miniature basic switch – pin plunger, 20.1 A 125/250 Vac, 0.250 x 0.032 QC terminals |
| V9-25N23D900 | V9 miniature basic switch – pin plunger, 25 A 125/250 Vac, 0.250 x 0.032 QC terminals |
| V9-25S43D800 | V9 miniature basic switch – pin plunger, 25 A 125/250 Vac, 0.187 x 0.032 QC terminals |
| V9-25S43D906A | V9 miniature basic switch – roller lever (slot far from pin plunger), 25 A 125/250 Vac, 0.250 x 0.032 QC terminals |

WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

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