

## MICRO SWITCH™ V-Basic Switch Standard V15 Series

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### Electromechanical Basic Switch



#### DESCRIPTION

Honeywell's MICRO SWITCH™ V-Basic Switch Standard, V15 Series, is an electromechanical switch designed for enhanced reliability at a great value. This switch is often ideal for “low-cost-of-failure” – where the cost to replace the switch or to service any failure related to the switch is minimal. The V15 is designed for applications requiring  $\geq 100$  g of operating force and electrical ratings ranging from 16A to 26A.

The V15 Series switch offers a wide range of standard offerings, including a choice of actuators, electrical ratings, operating forces, and circuitry, and holds global approvals (ENEC, CQC, UL, cUL).

#### FEATURES

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- Broad range of electrical loads
- Straight, roller, simulated roller, and special actuators
- Special terminations available upon request
- Precision operation and application versatility
- Wide temperature range
- Global approvals (ENEC, CQC, UL, cUL)

#### POTENTIAL APPLICATIONS

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- Appliance
- Gaming
- Vending machines
- Water heaters
- Industrial controls

#### BENEFITS

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- Compatible with many applications due to the switches design flexibility, broad range of electrical loads, and actuators
- Accepts insulated connections, most quick connect openings
- Reliability, repeatability within range of conditions

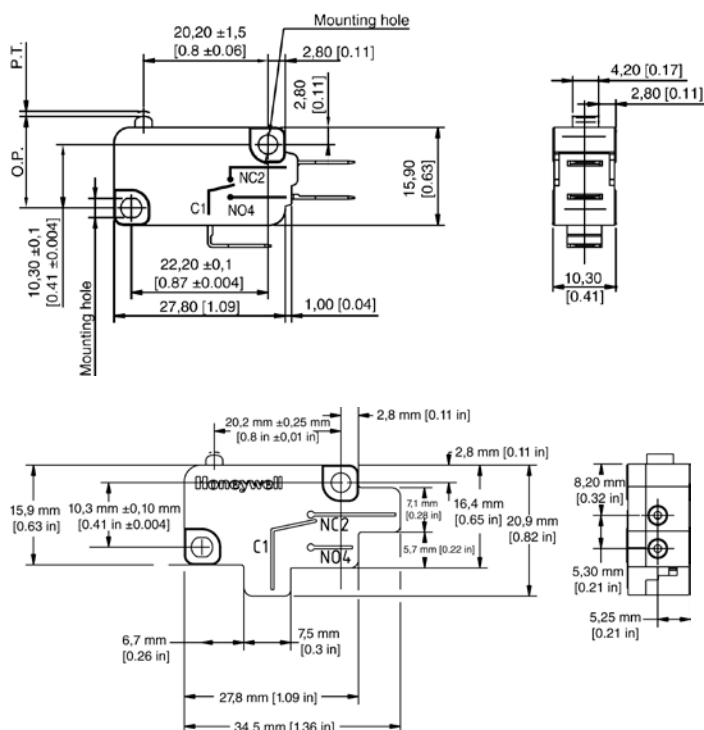
# MICRO SWITCH™ V-Basic Switch Standard V15 Series

| Specifications                   |                                                                                               |
|----------------------------------|-----------------------------------------------------------------------------------------------|
| Insulation resistance            | $\geq 100$ mOhm (500 Vdc)                                                                     |
| Dielectric strength              | 1000 Vac (50 Hz/60 Hz, 1 min.)                                                                |
| Contact resistance               | 100 milliOhm max.                                                                             |
| Operating frequency - electrical | 10 to 30 operations per minute                                                                |
| Operating frequency – mechanical | 300 operations per minute max.                                                                |
| Operating speed                  | 0,1mm - 1m/sec.                                                                               |
| Service life mechanical          | 5 million cycles (operating force $\leq 200$ g); 1 million cycles (operating force $> 200$ g) |
| Service life electrical          | 6000 or 50000 operations minimum                                                              |
| Storage temperature              | -25 °C to 100 °C [-13 °F to 212 °F]                                                           |
| Storage humidity                 | 85 % RH max.                                                                                  |
| Micro disconnection ( $\mu$ )    | $< 3$ mm contact gap                                                                          |
| Agency approvals                 | ENEC, CQC, UL, cUL                                                                            |

## ELECTRICAL CHARACTERISTICS

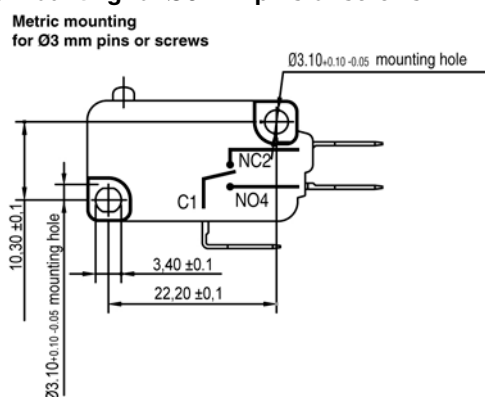
| Electrical rating |                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------|
| 11                | ENEC/CQC ; 11(3) A, 125/150 Vac<br>UL/cUL ; 11(3) A, 125/150 Vac                             |
| 16                | ENEC/CQC ; 16(4) A, 250 Vac (50000 cycles)<br>UL/cUL ; 16½ HP, 125 Vac/250 Vac (6000 cycles) |
| 22                | ENEC/CQC: 22(8) A, 250 Vac (10000 cycles)<br>UL/cUL: 22 A 1HP, 125 Vac/250Vac (6000 cycles)  |
| 26                | ENEC: 26(10) A, 250 Vac (25000 cycles)                                                       |

## DIMENSIONS

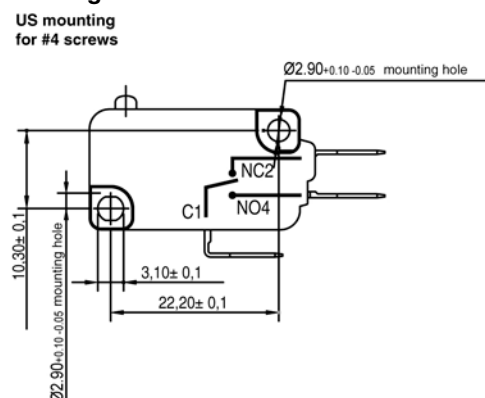


## MOUNTING HOLE DIMENSIONS

### Metric mounting for Ø3 mm pins or screws



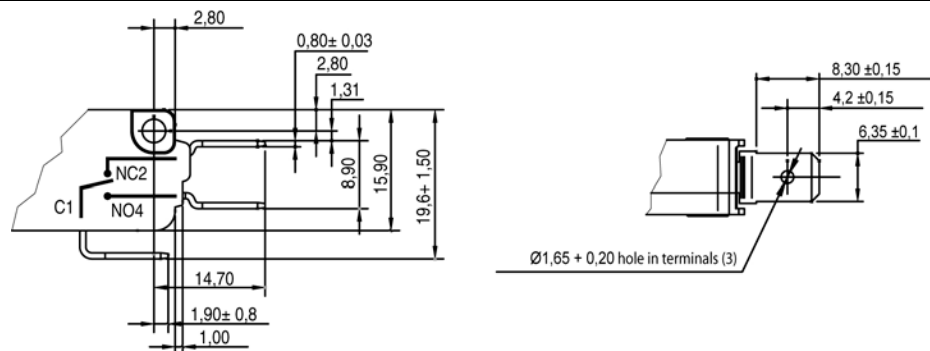
### USA mounting for #4 screws



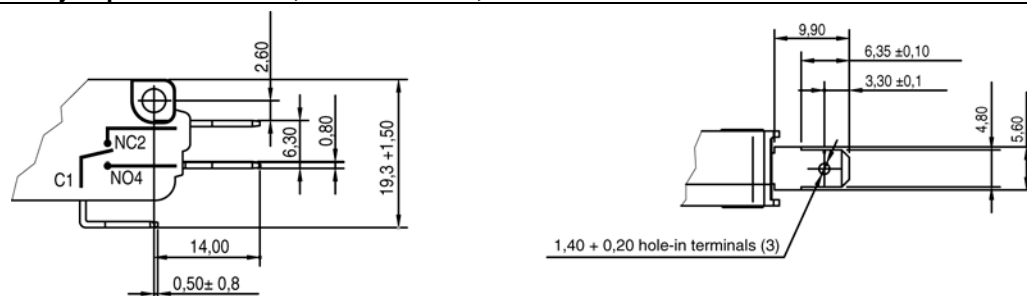
# Electromechanical Basic Switches

## CONNECTION DIMENSIONS

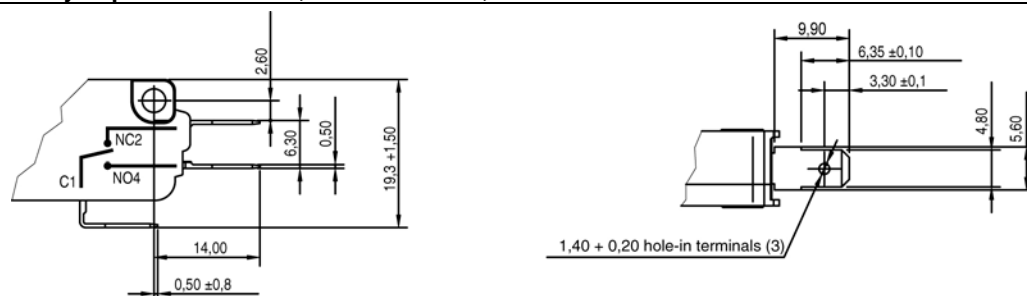
### C-style quick connect - 6,35 mm wide x 0,8 mm thick



### D-style quick connect - 4,80 mm wide x 0,8 mm thick



### E-style quick connect - 4,80 mm wide x 0,5 mm thick



# MICRO SWITCH™ V-Basic Switch Standard V15 Series

## STANDARD LEVER OPTIONS

| Lever code/Description      | Outline dimensions |
|-----------------------------|--------------------|
| A01/Straight short lever    |                    |
| A02/Standard straight lever |                    |
| A03/Long straight lever     |                    |
| A04/Simulated roller lever  |                    |
| A05/Short roller lever      |                    |
| A06/Roller lever            |                    |

# Electromechanical Basic Switches

## NOMENCLATURE TREE

| V15                                                | T              | 16                                                                                                       | C                                                                | Z            | 200                                  | A                         | 01                           | XX                                                                                                                                                                                                                                         | K                 |
|----------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------|--------------------------------------|---------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Switch type                                        | Temp. grade °C | Electrical rating                                                                                        | Terminal style                                                   | Circuit code | Operating force at pin plunger, max. | Lever position            | Lever type                   | Special designator                                                                                                                                                                                                                         | Mounting holes    |
| MICRO SWITCH™ V-Basic Switch Standard (V15 Series) | T T125         | 11<br>ENEC/CQC:<br>11(3) A, 125/150 Vac<br>25T85 µ 5E4<br>UL/cUL:<br>11(3) A, 125/150 Vac<br>25T85 µ 5E4 | C<br>Quick connect<br>6,35 mm x 0,80 mm<br>[0.250 in x 0.032 in] | Z SPDT       | 100<br>100 gf<br>0.98 N              | No lever<br>pin plunger   | No lever<br>pin plunger      | A special designator letter is used only when Terminal Type is "X" or Actuator/Lever Type is "99" to specify that the terminals or the actuator of the switch is special. Review Product Specification to determine the exact differences. | Metric<br>Ø3,1 mm |
|                                                    | H T150         | 16<br>ENEC/CQC:<br>16(4)A 250 Vac<br>UL/cUL:<br>16 1/2HP<br>125/250 Vac                                  | D<br>Quick connect<br>4,80 mm x 0,8 mm<br>[0.187 in x 0.032 in]  | P SPST-NO    | 200<br>200 gf<br>1.96N               | A Far from pin<br>plunger | 01 Short straight<br>lever   |                                                                                                                                                                                                                                            | USA<br>Ø2,9 mm    |
|                                                    | S T85          | 22<br>ENEC/CQC:<br>22(8) A, 250 Vac<br>UL/cUL:<br>22 A 1HP,<br>125/250 Vac                               | E<br>Quick connect<br>4,80 mm x 0,5 mm<br>[0.187 in x 0.020 in]  | C SPST-NC    | 300<br>300 gf<br>2.94 N              | B Near pin plunger        | 02 Std. straight<br>lever    |                                                                                                                                                                                                                                            |                   |
|                                                    |                | 26<br>ENEC:<br>26(10) A, 250 Vac                                                                         | H Push-in terminals                                              |              | 400<br>400 gf<br>3.92 N              |                           | 03 Long straight<br>lever    |                                                                                                                                                                                                                                            |                   |
|                                                    |                |                                                                                                          |                                                                  |              |                                      |                           | 04 Simulated roller<br>lever |                                                                                                                                                                                                                                            |                   |
|                                                    |                |                                                                                                          |                                                                  |              |                                      |                           | 05 Roller lever              |                                                                                                                                                                                                                                            |                   |
|                                                    |                |                                                                                                          |                                                                  |              |                                      |                           | 06 Long roller<br>lever      |                                                                                                                                                                                                                                            |                   |
|                                                    |                |                                                                                                          |                                                                  |              |                                      |                           | 99 Special lever             |                                                                                                                                                                                                                                            |                   |

Disclaimer: Not all configurations are immediately available.

## ORDER GUIDE

The MICRO SWITCH™ V-Basic Switch Standard, V15 Series, provides customers with the flexibility to request quotes FOB Hong Kong or FOB Freeport. In addition, drop shipments can be arranged to any location in Asia Pacific.

- FOB Freeport orders will be entered using ICOM. Lead time 8 weeks.
- FOB New House orders will be entered using SAP. Lead time 8 weeks.
- FOB Hong Kong or drop shipments a special order request form will need to be submitted please contact your application engineer or product manager for details.

# MICRO SWITCH™ V-Basic Switch Standard V15 Series

This Honeywell datasheet supports the following MICRO SWITCH™ V15 V-Basic Standard Basic Switch Listings

|                   |                   |                    |                   |                    |
|-------------------|-------------------|--------------------|-------------------|--------------------|
| V15H16-CP100      | V15H16-CZ400B02   | V15H22-CZ100A02-K  | V15T16-CC200      | V15T16-DZ100A04    |
| V15H16-CP100A02   | V15H16-CZ400B02-K | V15H22-CZ100A03    | V15T16-CC200-K    | V15T16-DZ100A05    |
| V15H16-CP100A02-K | V15H16-CZ400-K    | V15H22-CZ100A03-K  | V15T16-CC300A01-K | V15T16-DZ100A06    |
| V15H16-CP200      | V15H16-EP100      | V15H22-CZ100A05    | V15T16-CC300A05-K | V15T16-DZ200A02    |
| V15H16-CP200B03   | V15H16-EP100A05   | V15H22-CZ100A05-K  | V15T16-CC300-K    | V15T16E2C300-70D-K |
| V15H16-CP200B03-K | V15H16-EP100A05-K | V15H22-CZ100A06    | V15T16-CP100-01   | V15T16-EC200       |
| V15H16-CP400      | V15H16-EP200      | V15H22-CZ100A06-K  | V15T16-CP100-K    | V15T16-EC400-K     |
| V15H16-CP400B04   | V15H16-EP200B06   | V15H22-CZ100-K     | V15T16-CP200      | V15T16-EP100-K     |
| V15H16-CP400B04-K | V15H16-EP200B06-K | V15H22-CZ200B04-K  | V15T16-CP200-K    | V15T16-EP200-K     |
| V15H16-CP400-K    | V15H16-EP400      | V15H22-CZ300A02-K  | V15T16-CZ100A02   | V15T16-EZ100-K     |
| V15H16-CZ100      | V15H16-EP400A03   | V15H22-CZ300A03-K  | V15T16-CZ100A02-K | V15T16-EZ200A01-K  |
| V15H16-CZ100A02   | V15H16-EP400A03-K | V15H22-CZ300A05-K  | V15T16-CZ100A03   | V15T16-EZ200A02-K  |
| V15H16-CZ100A02-K | V15H16-EP400-K    | V15H22-CZ300A06-K  | V15T16-CZ100A03-K | V15T16-EZ200A03-K  |
| V15H16-CZ100A03   | V15H16-EZ100      | V15H22-CZ300-K     | V15T16-CZ100A05   | V15T16-EZ200A04-K  |
| V15H16-CZ100A03-K | V15H16-EZ100A01   | V15H22-CZ400B06-K  | V15T16-CZ100A05-K | V15T16-EZ200A05-K  |
| V15H16-CZ100A05   | V15H16-EZ100A01-K | V15H22-CZ400-K     | V15T16-CZ100A06   | V15T16-EZ200A06-K  |
| V15H16-CZ100A05-K | V15H16-EZ200      | V15S05-CZ100A05    | V15T16-CZ100A06-K | V15T16-EZ200-K     |
| V15H16-CZ100A06   | V15H16-EZ200B02   | V15S05-CZ100A05-01 | V15T16-CZ100-K    | V15T16-SZ200       |
| V15H16-CZ100A06-K | V15H16-EZ200B02-K | V15S05-EZ100-01    | V15T16-CZ200      | V15T22-CC200       |
| V15H16-CZ100-K    | V15H16-EZ400      | V15S05-EZ100A05    | V15T16-CZ200-K    | V15T22-CP100-K     |
| V15H16-CZ200      | V15H16-EZ400A01   | V15S05-EZ100-K     | V15T16-CZ300      | V15T22-CP200-K     |
| V15H16-CZ200B04   | V15H16-EZ400A01-K | V15S05-EZ100-K01   | V15T16-CZ300A02-K | V15T22-CZ100-K     |
| V15H16-CZ200B04-K | V15H16-EZ400-K    | V15S05-EZ200-01    | V15T16-CZ300A03-K | V15T22-CZ200       |
| V15H16-CZ300A02-K | V15H22-CP100A02-K | V15S11-HZ200       | V15T16-CZ300A05-K | V15T22-CZ200-K     |
| V15H16-CZ300A03-K | V15H22-CP200B03-K | V15T16-CC100A01    | V15T16-CZ300A06-K | V15T22-EC200       |
| V15H16-CZ300A05-K | V15H22-CP400B03-K | V15T16-CC100A01-K  | V15T16-CZ300-K    | V15T26-CC200-K     |
| V15H16-CZ300A06-K | V15H22-CP400-K    | V15T16-CC100A05    | V15T16-CZ400      | V15T26-CP200-K     |
| V15H16-CZ300-K    | V15H22-CZ100      | V15T16-CC100A05-K  | V15T16-DZ100A02   | V15T26-CZ300-K     |
| V15H16-CZ400      | V15H22-CZ100A02   | V15T16-CC100-K     | V15T16-DZ100A03   |                    |



## 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.**

## SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

**E-mail:** [info.sc@honeywell.com](mailto:info.sc@honeywell.com)

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## 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.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

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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# Honeywell

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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