INSTALLATION INSTRUCTIONS FOR THE MICRO SWITCH V-BASIC STANDARD, V15 SWITCHES

50079204
Issue 6

⚠ PERSONAL INJURY WARNING

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.

CAUTION
SWITCH DAMAGE

- Wiring must be rated to meet or exceed circuitry requirements.
- Connecting circuitry must not exceed switch rating.
- Wiring connections must be properly secured.
- Do not exceed recommended soldering time or temperature.
- Do not contact switch housing with soldering device.
- Do not exceed recommended mounting screw tightening torques.
- Discontinue use if switch has been damaged or cover removed.
- Do not apply side loads to actuator or exceed specified travel limits.
- Do not operate or store in areas where corrosive gases such as hydrogen sulfide are present.

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

⚠ DANGER
IMPROPER USE

DO NOT USE In hazardous environments where flammable or explosive gases or liquids such as gasoline or thinners, etc., are present.

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

GENERAL INFORMATION

MICRO SWITCH™ V-Basic Standard V15 Series Switches are precision snap-action contact mechanisms enclosed in plastic cases. Switch actuation triggers the mechanical closure of the switch's contacts. A small amount of arcing between the contacts during contact closure occurs during normal operation. In order to obtain desired switch performance, the switch must be chosen based on the mechanical, electrical, and environmental conditions of the application.

Do not use this product in an application where water or dust is prevalent. The environmental degree of protection for the V15 Series is IP00. Honeywell offers a watertight switch in a similar package, the V15W.

TABLE 1. MOUNTING INFORMATION

Mounting hole size	Screw type*	Screw size	Tightening Torque (max.)
3,1 mm	Flat fillister head	3 mm	4,5 kg-cm [3.9 in-lb]
2,9 mm (-K option)	Flat fillister head	#4	4,5 kg-cm [3.9 in-lb]

*To prevent loosening of screws, use spring washers under screw heads and thread lock adhesive.

- Turn OFF the power supply before mounting or removing the switch, wiring, or performing maintenance or inspection. Failure to do so may result in electric shock.
- Mount the switch onto a flat surface. Mounting on an uneven surface may cause deformation of the switch, resulting in faulty operation or damage.
- Use an operating device with low frictional resistance and of a shape that will not interfere with the plunger seal otherwise the plunger may be damaged or the sealing may deteriorate.
- Position the operating device perpendicular to the actuator/pushbutton to prevent side loading of the switch actuator or pushbutton.
- Position the operating device so that no force is applied to the pushbutton/actuator when the switch is in the free position.
- The operating device should be positioned so that when the switch is in the operating position it should move the actuator no less than 70% of the total travel. Setting the travel position so that less than 70% of the total travel is used may cause poor contact or welding conditions due to an insufficient contact switching force.
- The operating device should never force the actuator/pushbutton to exceed the total travel position.

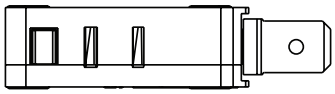
WIRING INFORMATION

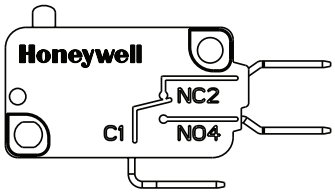
- Connect wires firmly to terminals.
- Replace wires that have damaged insulation.
- Use properly sized spade terminals.
- Use wire rated for the application's electrical load and application's temperature.
- Provide strain relief when a potential exists for forces to be transferred from the lead wires to the switch terminals.

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CIRCUIT INFORMATION

A circuit diagram is included on the switch case labeling each of the terminals. The normal position corresponds to the switch plunger in its released position.





SOLDERING GUIDELINES

When hand soldering the switch's terminals, do not exceed five seconds at 350 °C [662 °F]. Contacting the switch housing with the soldering device may damage the switch housing. Solder joints must not be moved for at least one minute after soldering.

Do not try to clean the switch with a solvent or similar substance after the soldering process.

ENVIRONMENTAL OPERATING CHARACTERISTICS

TABLE 2. SPECIFICATIONS

Operating temperature range	"S" Grade: -25 °C to 85 °C [-13 °F to 185 °F] "T" Grade: -25 °C to 125 °C [-13 °F to 257 °F] "H" Grade: -25 °C to 150 °C [-13 °F to 302 °F]
Humidity	Validated to 240 hours at 40 °C, 95 %RH
Recommended rate of actuation (pin plunger)	0,1 mm/s to 1000 mm/s
Operating frequency (electrical)	25 operations/minute max.
Operating frequency (mechanical)	60 operations/minute max.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. 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 that Honeywell, in its sole discretion, 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 Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility 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 writing. However, Honeywell assumes no responsibility for its use.

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