Honeywell

MICRO SWITCH™ V15W Series Watertight Miniature Switches

Basic Switches



DESCRIPTION

The MICRO SWITCH[™] V15W is a standard-sized basic switch designed for harsh-duty, wash down areas. Rugged yet precise, the Series gives highly accurate machine control for turning circuits on and off. The V15W can be used in a wide range of challenging environments, including food packaging plants, forklifts, ATVs, golf carts, lawn mowers, garbage trucks, salt trucks, commercial buses, and wheelchair lifts for conversion vans. Choose the V15W when the application needs accurate repeatability in a compact, lightweight and long-lasting basic switch.

This switch signifies an expansion of the proven and reliable, MICRO SWITCH[™] V15 Standard snap-action switch series.

By utilizing an epoxy resin, the V15W Series switches deliver high sealing capability with an IP67 rating (pre-leaded only). They may also be used in dusty places or in washdown applications.

FEATURES AND BENEFITS

- Degree of protection: IP67 (except terminal parts) to operate under difficult environmental conditions
- Wide current range: 0.1 A, 5 A, 10 A
- SPDT, SPNO, and SPNC options
- For engineering design flexibility, the V15W Series features a variety of straight, roller, simulated roller, and special actuators to choose from
- Pre-leaded wires for easy installation
- Special terminations available upon request
- Gold contacts available
- Wide temperature range
- Metric or USA mounting holes
- Long mechanical/electrical service life
- Global approvals: UL, cUL, ENEC, and CQC for reliable and consistent performance within a range of conditions
- RoHS compliant

APPLICATIONS

- Industrial
- Appliances
- Communication equipment
- o Computers
- Electric tools
- o Electromechanical timers
- HVAC wall controls
- o Instrumentation
- o Mechanical cam assemblies (timers)
- o Office equipment
- o Valves
- o Vending machines
- Transportation
- o Automotive, truck, and boat wire harnesses
- Lock modules for tail-gate/trunk
- o Sub-assemblies for convertible roofs
- o Tank and hood latch detection

Medical

- Chair lifts
- Foot pedal controls
- o Medical and hospital beds

MICRO SWITCH^M V15W Series Watertight Miniature Switches

SPECIFICATIONS

Characteristic	Parameter					
Electrical rating	0.1 A, 5 A, 10 A					
Circuitry	SPDT, SPNC, SPNO					
Operating force	15 g, 25 g, 50 g, 100 g, 200 g					
Temperature rating	-40 °C to 85 °C [-40 °F to 185 °F]					
Operating speed	0,1 mm to 1 m/s (at plunger)					
Operating frequency	200 operations/minute max. (mechanical) 30 operations/minute max. (electrical)					
Insulation resistance	100 MOhm min. at 500 Vdc					
Contact resistance	100 mOhm max. 300 mOhm max. for lead wire models					
Contacts	Silver nickel, gold-plated option					
Terminals	4,8 mm x 0.8 mm or 4,8 mm x 0.5 mm					
Wiring	300 mm long wire					
Wire sizes	W1 – 24 AWG; W2 – 20 AWG; W3 – 16 AWG					
Electrical life	W1 (0.1 A): 50000 cycles ENEC, 10000 cycles UL W2 (5 A): 50000 cycles ENEC, 10000 cycles UL W3 (10 A): 20000 cycles ENEC, 10000 cycles UL					
Mechanical life	1 million cycles					
Weight	8 g (terminal versions); 18 g (pre-wired versions)					
Approvals	UL, cUL, ENEC, CQC					
Case material	PBT					
Plunger seal	Silicone rubber					
External lever	Stainless steel					
Mounting holes	Metric or USA					

Honeywell

Basic Switches

Figur	e 1. V1	5W1	11 F	Produ	uct N		nclat	ure
1 M	Electrical Rating (must be included)	ENEC/COC: 0.1 A 125/250 Vac 0.1 A 48 Vdc; 40185 5E4 UL(cUL: 0.1 A 125/250 Vac 0.1 A 48 Vdc; (10K cvcles)		2 ENEC/COC: 5 A 125/250 Vac 2 5 A 30 Vdc, 40185 5E4 UL/cUL: 5 A 125/250 Vac	5 A 30 Vdc (10K cycles) 5 ENEC/COC: 10(2) A 125/250 Vac 3 0.5 A 125 Vdc.	ENEC/COC: 10(2) A 125/250 Vac 0.5 A 129 Vdc. 0.25 A 250 Vdc, 40185 2E4 ULGUL: 10.1 A 1/10 HP 125/250 Vac 0.5 A 129 Vdc. (10K cycles) 0.25 A 250 Vdc (10K cycles)		
1		W		>	3			
	Special Codes	Silver-nickel contacts	A Gold-plated	COLLEGER				
	Mounting Holes	Metric (Ø 3,1 mm)	K USA (Ø 2.9 mm)					
I			+					
01	Lever Type	Pin plunger	01 Short straight	02 Standard straight lever	03 Long straight lever	04 Simulated roller lever	05 Roller lever	06 Long roller lever
A	Lever Location	No lever	Lever pivot far from	blunger Lever pivot near plunger				
050	Operating Force	015 fating W1 only	025 25 g max, electrical	050 S0 g max, for all	100 electrical ratings	200 200 g max. for all electrical ratings		
N	Circuitry	Z SPDT	onds d	C SPNC				
	Terminals/Wiring	D 4,8 mm x 0,8 mm	E 4,8 mm x 0,5 mm	W 300 mm long Wiras				
V15W11	Switch type	MICRO SWITCH TM V-Basic	Standard	V15W Watertight _ Switch				

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Part Number	Description
	MICRO SWITCH [™] V15W Series Watertight Miniature Basic
V15W11-EZ200-W3	Switch, 4,8 mm x 0.5 mm terminals, SPDT, 200 g operating
	force, pin plunger, ENEC/CQC: 10(2) A 125/250 Vac; 0.5 A
	125 Vdc, 0.25 A 250 Vdc, 40T85 2E4; UL/cUL: 10.1 A 1/10 HP
	125/250 Vac; 0.5 A 125 Vdc, 0.25 A 250 Vdc (10K cycles)
V15W11-WZ200-W3	MICRO SWITCH [™] V15W Series Watertight Miniature Basic
	Switch, 300 mm long wires, SPDT, 200 g operating force, pin
	plunger, ENEC/CQC: 10(2) A 125/250 Vac; 0.5 A 125 Vdc,
	0.25 A 250 Vdc, 40T85 2E4; UL/cUL: 10.1 A 1/10 HP 125/250 Vac; 0.5 A 125 Vdc, 0.25 A 250 Vdc (10K cycles)
	MICRO SWITCH™ V15W Series Watertight Miniature Basic
V15W11-DZ200-AW1	Switch, 4,8 mm x 0.8 mm terminals, SPDT, 200 g operating
	force, pin plunger, gold-plated contacts, ENEC/CQC: 0.1 A
	125/250 Vac, 0.1 A 48 Vdc, 40T85 5E4; UL/cUL: 0.1 A
	125/250 Vac; 0.1 A 48 Vdc (10K cycles)
V15W11-DZ200A06-AW1	MICRO SWITCH™ V15W Series Watertight Miniature Basic
	Switch, 4,8 mm x 0.8 mm terminals, SPDT, 200 g operating
	force, lever pivot far from plunger, long-roller lever, gold-plated contacts, ENEC/CQC: 0.1 A 125/250 Vac; 0.1 A 48 Vdc,
	40T85 5E4; UL/cUL: 0.1 A 125/250 Vac; 0.1 A 48 Vdc,
	cycles)
V15W11-DZ200A02-AW1	MICRO SWITCH [™] V15W Series Watertight Miniature Basic
V15W11-D2200A02-AW1	Switch, 4,8 mm x 0.8 mm terminals, SPDT, 200 g operating
	force, lever pivot far from plunger, standard straight lever,
	ENEC/CQC: 0.1 A 125/250 Vac; 0.1 A 48 Vdc, 40T85 5E4;
	UL/cUL: 0.1 A 125/250 Vac; 0.1 A 48 Vdc (10K cycles)
V15W11-DZ200A06-W2	MICRO SWITCH™ V15W Series Watertight Miniature Basic Switch, 4,8 mm x 0.8 mm terminals, SPDT, 200 g operating
	force, lever pivot far from plunger, long-roller lever,
	ENEC/CQC: 5 A 125/250 Vac; 5 A 30 Vdc, 40T85 5E4;
	UL/cUL: 5 A 125/250 Vac; 5 A 30 Vdc (10K cycles)
V15W11-DZ200A02-W2	MICRO SWITCH™ V15W Series Watertight Miniature Basic
	Switch, 4,8 mm x 0.8 mm terminals, SPDT, 200 g operating
	force, lever pivot far from plunger, standard straight lever,
	ENEC/CQC: 5 A 125/250 Vac; 5 A 30 Vdc, 40T85 5E4;
	UL/cUL: 5 A 125/250 Vac; 5 A 30 Vdc (10K cycles) MICRO SWITCH™ V15W Series Watertight Miniature Basic
V15W11-WZ200A02-W2	Switch, 300 mm long wires, SPDT, 200 g operating force, lever
	pivot far from plunger, standard straight lever, ENEC/CQC: 5 A
	125/250 Vac; 5 A 30 Vdc, 40T85 5E4; UL/cUL: 5 A 125/250
	Vac; 5 A 30 Vdc (10K cycles)
V15W11-WZ200A06-AW1	MICRO SWITCH [™] V15W Series Watertight Miniature Basic
	Switch, 300 mm long wires, SPDT, 200 g operating force, lever
	pivot far from plunger, long-roller lever, gold-plated contacts,
	ENEC/CQC: 0.1 A 125/250 Vac; 0.1 A 48 Vdc, 40T85 5E4;
	UL/cUL: 0.1 A 125/250 Vac; 0.1 A 48 Vdc (10K cycles) MICRO SWITCH™ V15W Series Watertight Miniature Basic
V15W11-DZ200A05-AW1	Switch, 4.8 mm x 0.8 mm terminals, SPDT, 200 g operating
	force, lever pivot far from plunger, roller lever, gold-plated
	contacts, ENEC/CQC: 0.1 A 125/250 Vac; 0.1 A 48 Vdc,
	40T85 5E4; UL/cUL: 0.1 A 125/250 Vac; 0.1 A 48 Vdc (10K
	cycles)
V15W11-DZ200A04-W2	MICRO SWITCH [™] V15W Series Watertight Miniature Basic
	Switch, 4,8 mm x 0.8 mm terminals, SPDT, 200 g operating
	force, lever pivot far from plunger, simulated roller lever,
	ENEC/CQC: 5 A 125/250 Vac; 5 A 30 Vdc, 40T85 5E4;
	UL/cUL: 5 A 125/250 Vac; 5 A 30 Vdc (10K cycles) MICRO SWITCH™ V15W Series Watertight Miniature Basic
V15W11-WZ200A02-AW1	Switch, 300 mm long wires, SPDT, 200 g operating force, lever
	pivot far from plunger, standard straight lever, gold-plated
	contacts, ENEC/CQC: 0.1 A 125/250 Vac; 0.1 A 48 Vdc,
	40T85 5E4; UL/cUL: 0.1 A 125/250 Vac; 0.1 A 48 Vdc (10K
	cycles)

MICRO SWITCH™ V15W Series Watertight Miniature Switches

Figure 2. MICRO SWITCH™ V15W Series Watertight Miniature Basic Switch Package Dimensions [mm]

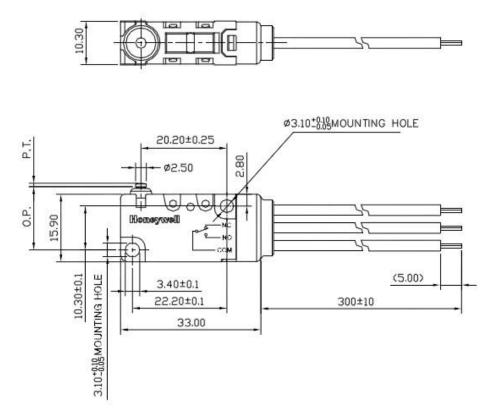
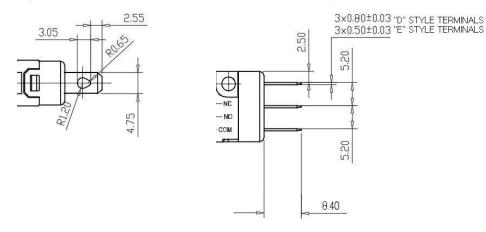
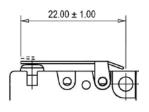


Figure 3. Other MICRO SWITCH™ V15W Series Watertight Miniature Basic Switch Terminal Options

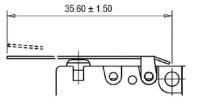


Basic Switches

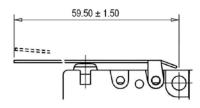
Figure 4. MICRO SWITCH™ V15W Series Watertight Miniature Basic Switch Lever Options



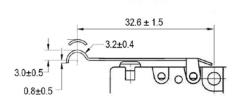
01 Short Straight Lever

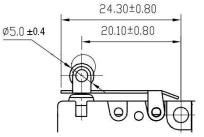


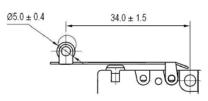
02 Standard Straight Lever



03 Long Straight Lever







04 Simulated Roller Lever

05 Roller Lever

06 Long Roller Lever

Figure 5. MICRO SWITCH™ V15W Series Watertight Miniature Basic Switch Operating Characteristics

	Operate Force Code]			
	15	25	50	100	200	1			
						Maximum	Minimum	Maximum	
						Pretravel	Overtravel	Differential	Operate Point
Maximum Operate Force (Grams)							(mm)	Travel (mm)	(mm)
Pin Plunger	15	25	50	100	200	1.6	0.8	0.4	14.7±0.5
Lever 01	15	25	50	100	200	1.6	0.8	0.4	15.3±0.5
Lever 02	9	15	30	60	120	3.2	1.3	1.2	15.3±1.5
Lever 03	5	7	15	30	60	6.4	2.6	2.4	15.3±3.0
Lever 04	9	15	30	60	120	3.2	1.3	1.2	18.5±1.5
Lever 05	18	30	60	120	240	1.6	0.8	0.4	20.6±0.8
Lever 06	9	15	30	60	120	3.2	1.3	1.2	20.6±1.6
Minimum Release Forc									
Pin Plunger	3	5	10	25	50]			
Lever 01	3	5	10	25	50				
Lever 02	2	2	2	5	10]			
Lever 03	2	2	2	5	10]			
Lever 04	2	2	2	10	20]			
Lever 05	3	5	10	20	40]			
Lever 06	2	2	5	10	20				

🛦 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.

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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