



SWITCHES

- ▶ **Honeywell Sensing and Control**120–132
- ▶ **NKK Switches** 133–136
- ▶ **TT electronics/OPTEK Technology**.....137
- ▶ **Omron Electronics**138
- ▶ **Tyco Electronics**139

Honeywell

Limit Switches

The LS Series fits into places too small for most fully adjustable limit switches. The side rotary models can be adjusted for clockwise and/or counter-clockwise operation. The SZL-VL Series miniature models are designed for applications requiring a small mounting space. The EVN2000 Series limit switch has a new design that eliminates the need to gain access to the inside of the housing, making a housing cover, cover screws, and a gasket obsolete.



Features ▶

- LS: Wide choice of operating heads and actuators
- LS: Globally-accepted mounting pattern
- VL: Two-circuit double break (1NO/1NC)
- VL: Gold-plated silver contacts and integrated cable gland
- EVN: Insulation displacement termination and integrated cable gland

Benefits ▶

- LS: NEMA 1, 3, 4, 6, and 13; UL-recognized, CSA-certified
- VL: IP64; UL-approved; C-UL and CE-approved
- EVN: IP66/67; NEMA 1, 12, and 13; C-UL; UL; CE

Applications ▶

- Machine tool equipment and material handling
- Packaging equipment
- Elevators and moving stairs
- Food and beverage industry
- Conveyors

Product Specifications ▶

Part Number	Description	Voltage Rating		Max. Current (A)		Operating Force	Pretravel	Differential Travel	Overtravel	Operating Temp. (°F)
		VAC	VDC	AC	DC					
1LS1	SPDT-DB, non plug-in, 1.5 inch lever	480	550	10	0.8	4.5 inch/lb.	20°	12°	30°	-20 to +160
1LS19	SPDT-DB, non plug-in, low pretravel, 1.5 inch lever	480	NA	10	NA	4.5 inch/lb.	5°	4°	30°	-20 to +160
1LS1-L	SPDT-DB, non plug-in, 1.5 inch lever, UL/CSA	480	250	10	0.4	4.5 inch/lb.	20°	12°	30°	-20 to +160
1LS2	SPDT-DB, non plug-in, no lever	480	550	10	0.8	4.5 inch/lb.	20°	12°	30°	-20 to +160
1LS3	SPDT-DB, non plug-in, 1.5 inch to 3.5 inch adjustable lever	480	550	10	0.8	4.5 inch/lb.	20°	12°	30°	-20 to +160
1LS53	SPDT-DB, non plug-in, low pretravel, 5 inch rod	480	NA	10	NA	4.5 inch/lb.	5°	4°	30°	-20 to +160
1LS56	SPDT-DB, non plug-in, low pretravel, no lever	480	NA	10	NA	4.5 inch/lb.	5°	4°	30°	-20 to +160
201LS1	SPDT-DB, plug-in, 1.5 inch lever, no base	480	550	10	0.8	4.5 inch/lb.	20°	12°	30°	-20 to +160
208LS1	SPDT-DB, plug-in, wobble actuator, flexible cable, no base	480	550	10	0.8	5 oz.	1.125 inch	NA	NA	-20 to +160
2LS1	SPDT-DB, non plug-in, top plunger	480	550	10	0.8	7 lb.	0.065 inch	0.020 inch	0.250 inch	-20 to +160
5LS1	SPDT-DB, non plug-in, top roller plunger	480	550	10	0.8	7 lb.	0.065 inch	0.020 inch	0.219 inch	-20 to +160
8LS1	SPDT-DB, non plug-in, wobble actuator, flexible cable	480	550	10	0.8	5 oz.	1.125 inch	NA	NA	-20 to +160
8LS3	SPDT-DB, non plug-in, wobble actuator, spring rod	480	550	10	0.8	5 oz.	1.125 inch	NA	NA	-20 to +160
18PA1	Terminal block for plug-in compact limit switches	NA	NA	NA	NA	NA	NA	NA	NA	NA
6PA121	1.5 inch standard roller lever, steel roller	NA	NA	NA	NA	NA	NA	NA	NA	NA
6PA63	13 inch adjustable stainless steel rod lever	NA	NA	NA	NA	NA	NA	NA	NA	NA
9PA15	Operating head, side rotary, 1.5 inch lever	NA	NA	NA	NA	NA	NA	NA	NA	NA
9PA16	Operating head, side rotary, no lever	NA	NA	NA	NA	NA	NA	NA	NA	NA
9PA42	Operating head, wobble actuator, coil spring	NA	NA	NA	NA	NA	NA	NA	NA	NA
9PA58	Operating head, wobble actuator, flexible cable	NA	NA	NA	NA	NA	NA	NA	NA	NA
SZL-VL-A	SPDT-DB, side rotary roller lever standard	250	125	5	NA	1.32	20°	10°	75°	NA
SZL-VL-B	SPDT-DB, side rotary roller lever adjustable	250	125	5	NA	1.76	20°	10°	75°	NA
SZL-VL-C	SPDT-DB, side rotary rod adjustable	250	125	5	NA	1.76	20°	10°	75°	NA
SZL-VL-D	SPDT-DB, top plunger	250	125	5	NA	2.00	0.060 inch	0.028 inch	0.158 inch	NA
SZL-VL-E	SPDT-DB, cross roller plunger	250	125	5	NA	2.00	0.060 inch	0.028 inch	0.158 inch	NA
SZL-VL-F	SPDT-DB, wobble-plastic rod coil spring	250	125	5	NA	0.20	1.180 inch	NA	0.788 inch	NA
SZL-VL-G	SPDT-DB, wobble-coil spring	250	125	5	NA	0.20	1.180 inch	NA	0.788 inch	NA
SZL-VL-H	SPDT-DB, roller plunger	250	125	5	NA	2.00	0.060 inch	0.028 inch	0.158 inch	NA
EVN2000A	Side rotary, fix length lever	NA	NA	10	NA	NA	NA	NA	NA	NA
EVN2000B	Top pin plunger	NA	NA	10	NA	NA	NA	NA	NA	NA
EVN2000C	Top roller plunger, parallel	NA	NA	10	NA	NA	NA	NA	NA	NA
EVN2000D	Top roller plunger, perpendicular	NA	NA	10	NA	NA	NA	NA	NA	NA

Honeywell



HDLS Series

Heavy-Duty Limit Switches

The HDLS Series heavy-duty limit switches are designed for a long life. Housed in a rugged corrosion-resistant zinc body, the switch is epoxy-coated for protection. Its unique, all-metal drive train provides consistent operating characteristics and lasts longer than drive trains with plastic parts. The HDLS offers sintered bronze bearings on 303 stainless steel operating shafts and all versions offer the same actuator lever tracking dimensions for excellent design flexibility.

Features ▶

- Wide variety of operating heads and actuator styles
- Single-pole and double-pole options
- Low-temperature and fluorocarbon seals available
- Power-duty and logic-level switching capability

Benefits ▶

- UL-recognized, file #E37138
- CSA-certified, file #LR57326
- Sealing: NEMA 1, 3, 4, 6, 13, 4X, and 6P
- CE-certified
- CCC approvals

Applications ▶

- Material handling—jet bridges, compactors, and forklifts
- Machine tool equipment
- Heavy-duty outdoor equipment
- Food and beverage industry

Product Specifications ▶

	Part Number	Description	Voltage Rating		Max. Power		Pretravel	Differential Travel	Overtravel	Operating Torque (inches/lb.)	Operating Temp. (°F)
			VAC	VDC	VA	W					
Side Rotary	LSA1E	SPDT-DB, plug-in, gold contacts	250	60	12.5	3	15°	5°	60°	4.0	+10 to +250
	LSA5A	SPDT-DB, plug-in, indicator light	120	120	720.0	30	15°	5°	60°	4.0	+10 to +250
	LSU1A	SPDT-DB, plug-in, low pretravel	120	120	720.0	30	5°	3°	70°	4.0	+10 to +250
	LSP1A	SPDT-DB, plug-in, low differential	600	240	720.0	30	9°	3°	66°	4.0	+10 to +250
	LSP3K	SPDT-DB, Non plug-in, low differential	600	240	720.0	30	9°	3°	66°	4.0	+10 to +250
	LSR1A	SPDT-DB, plug-in, low torque	600	240	720.0	30	15°	5°	60°	1.7	+30 to +250
	LSH1A	SPDT-DB, plug-in, low differential, low torque	600	240	720.0	30	9°	3°	66°	1.7	+30 to +250
	LSN1A	SPDT-DB, plug-in, maintained, 2-position	600	240	720.0	30	65°	40°	20°	4.0	+30 to +250
	LSA2B	DPDT-DB, plug-in, standard, 3/4 inch conduit	600	240	360.0	15	15°	7°	60°	4.0	+10 to +250
	LSA6B	DPDT-DB, plug-in, standard, 1/2 inch conduit	600	240	360.0	15	15°	7°	60°	4.0	+10 to +250
	LSM2D	DPDT-DB, plug-in, center neutral, 3/4 inch conduit	600	240	360.0	15	18°	10°	57°	4.0	+30 to +250
	LSM4N	DPDT-DB, non plug-in, center neutral, 3/4 inch conduit	600	240	360.0	15	18°	10°	57°	4.0	+30 to +250
	LSM6D	DPDT-DB, plug-in, center neutral, 1/2 inch conduit	600	240	360.0	15	18°	10°	57°	4.0	+30 to +250
LSM7N	DPDT-DB, non plug-in, center neutral, 1/2 inch conduit	600	240	360.0	15	18°	10°	57°	4.0	+30 to +250	
Plunger-Actuated	LSD1A	SPDT-DB, top roller plunger	600	240	720	30	0.07 inch	0.015 inch	0.19 inch	4	+10 to +250
	LSW1A	SPDT-DB, plug-in, adjustable side plunger	600	240	360	15	0.10 inch	0.025 inch	0.19 inch	6	+10 to +250
Fully-Potted	LSYAC3KP-FP	Side rotary, SPDT, 12 ft. cable	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LSYAC4LX-FP	Side rotary, DPDT, 12 ft. cable	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LSYCC3KP-FP	Top plunger, SPDT, 12 ft. cable	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LSYCC4LX-FP	Top plunger, DPDT, 12 ft. cable	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stainless Steel	LS2A4K	Side rotary, SPDT, 3/4 inch, 14 NPT conduit	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LS2A4L	Side rotary, DPDT, 3/4-NPT conduit	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LS2M4N	Side rotary, DPDT, 3/4 inch, 14 NPT conduit	NA	NA	NA	NA	NA	NA	NA	NA	NA
	LS2D4K	Top roller plunger, SPDT, 3/4 inch, 14 NPT conduit	NA	NA	NA	NA	NA	NA	NA	NA	NA

Honeywell

Standard Basic Switches

BZ/BA Series standard basic switches are used for simple or precision on/off application needs. DT Series standard basic switches consist of two independent, single-pole, double-throw circuits in one housing actuated by one actuator. The terminals are separated by a non-conductive shield to reduce shorting.



Standard basic switches

Features ▶

- Low operating force and differential travel
- Long mechanical life: up to 20 million cycles at 95 percent survival
- Current rating ranges from 15A to 25A
- Momentary or maintained contact options
- Variety of actuating options and optional sealed plungers

Benefits ▶

- Elongated mounting hole for easier, more accurate mounting
- Operating force as low as 1.00 oz.
- Sensitive differential travel as low as 0.0004 inch

Applications ▶

- Irrigation systems
- Semi-trailer trucks
- Timing devices
- Office equipment
- Test instruments

Product Specifications ▶

	Part Number	Description	Terminal Type	Plunger Loc. Dim. (inches)	Lever Pivot Dim. (inches)	Current Rating (A)	Operating Force (oz.)	Pretravel (inches)	Differential Travel (inches)	Operating Position (inches)
Pin Plunger Switches	BZ-2R	SPDT, standard	Solder	0.92	NA	15	4	0.015	0.0004-0.0020	0.63
	BA-2R-A2	SPDT, standard	Screw	0.75	NA	20	14-22	0.05	0.0020-0.0075	NA
	BA-2R-A4	SPDT, standard, 8-32 terminal screws	Screw	0.75	NA	20	14-22	0.05	0.0020-0.0075	NA
	BZ-2R-A2	SPDT, standard	Screw	0.92	NA	15	4	0.015	0.0004-0.0020	0.63
	BZ-2R72-A2	SPDT, gold contacts	Screw	0.92	NA	1	9-13	0.015	0.0004-0.0020	0.63
	BZ-2R55-A2-S	SPDT, sealed construction	Screw	0.92	NA	15	9-15	0.005	0.0004-0.0025	0.63
	BZ-3AT	2-circuit double break, low voltage DC	Screw	0.92	NA	15	16-26	0.03	0.0020-0.0050	0.63
	BA-3ST	2-circuit double break, low voltage DC	Screw	0.75	NA	25	26-38	0.065	0.0070-0.0150	0.64
	BZ-R88-A2	SPDT, low differential travel	Screw	0.92	NA	10	9	0.012	0.0007	0.63
	DT-2R-A7	DPDT, standard	Screw	0.92	NA	10	12-20	0.075	0.0400-0.0600	0.62
Overtravel Plunger Switches	BZ-2RD-A2	SPDT, large plunger	Screw	0.92	NA	15	9-13	0.015	0.0004-0.0020	9-13
	BZ-2RDS-A2-S	SPDT, large seal boot plunger	Screw	0.92	NA	15	13-19	NA	0.0004-0.0025	13-19
	BA-2RB-A2	SPDT, large plunger	Screw	0.75	NA	15	14-22	0.05	0.0020-0.0075	14-22
	BZ-2RS-A2	SPDT, small plunger	Screw	0.92	NA	15	9-13	0.015	0.0004-0.0025	9-13
	BZ-2RN-A2	SPDT, threaded plunger flange	Screw	0.92	NA	15	9-13	0.015	0.0004-0.0020	9-13
Bushing-Mount Overtravel Plunger Switches	BZ-2RQ-A2	SPDT, added overtravel	Screw	0.92	NA	15	9-13	0.015	0.0004-0.0020	1.5
	BZ-2RQ1	SPDT, bushing-mount	Solder	0.92	NA	15	9-13	0.015	0.0004-0.0021	0.86
	BZ-2RQ1-A2	SPDT, bushing-mount	Screw	0.92	NA	15	9-13	0.015	0.0004-0.0022	0.86
	BZ-2RQ1T	SPDT, bushing-mount	Screw	0.92	NA	15	9-13	0.015	0.0004-0.0023	0.86
	BZ-2RQ181-A2	SPDT, cross roller plunger	Screw	0.92	NA	15	9-13	0.015	0.0004-0.0024	1.31
	BZ-2RQ18-A2	SPDT, roller plunger	Screw	0.92	NA	15	9-13	0.015	0.0004-0.0025	1.31
	BA-2RQ1-A2	SPDT, bushing-mount	Screw	0.75	NA	20	14-22	0.05	0.0020-0.0075	0.86
	BZ-3RQ1-A2	SPDT, bushing-mount, higher operating force	Screw	0.92	NA	15	14-20	0.02	0.0008-0.0030	0.86
Lever Switches	BZ-2RW80-A2	SPDT, 2.50 inch lever	Screw	NA	1.03	15	2.5	NA	0.007-0.050	0.75
	BA-2RV-A2	SPDT, 2.50 inch lever	Screw	NA	0.97	20	2.5	0.625	0.109	0.75
	BZ-2RW863-A2	SPDT, 6.00 inch lever	Screw	NA	1.03	15	1	NA	0.018-0.145	0.75
	BZ-2RW822	SPDT, 1.05 inch roller lever	Solder	NA	1.03	15	6	NA	0.003-0.020	1.19
	BZ-2RW82255-A2-S	SPDT, 1.05 inch roller lever, splash-resist. seal	Screw	NA	1.03	15	6	NA	0.003-0.020	1.19
	BZ-2RW822-P4	SPDT, 1.05 inch roller lever, side-facing screws	Screw	NA	1.03	15	6	NA	0.003-0.020	0.75
	BZ-2RW822T	SPDT, 1.05 inch roller lever, sems lockwashers	Screw	NA	1.03	15	6	NA	0.004-0.040	1.19
	BZ-2RW82	SPDT, 1.90 inch roller lever	Solder	NA	1.03	15	3.5	NA	0.004-0.040	1.19
	BA-2RV22-A2	SPDT, 1.05 inch roller lever	Screw	NA	0.97	20	6	NA	0.045	1.17
	BA-2RV2-A2	SPDT, 1.90 inch roller lever	Screw	NA	0.97	20	3.5	0.25	0.85	1.19
	BZ-2RW826-A2	SPDT, 1.26 inch one-way roller lever	Screw	NA	1.03	15	6	0.468	0.003-0.020	1.625
	BZ-2RW8244-A2	SPDT, 2.50 inch lever, 400°F for 100 hours	Screw	NA	1.03	5	2.5	1.2	0.007-0.050	0.75
	BZ-2RW824-A2	SPDT, 2.50 inch lever, 250°F	Screw	NA	1.03	15	2.5	NA	0.007-0.050	0.75
	BZ-RW80X	SPDT, 2.50 inch lever, manual reset	Solder	NA	1.03	15	2.25	0.328	NA	0.75
	DT-2RV3-A7	DPDT, 2.50 inch lever, reversed	Screw	NA	0.05	10	4-7	0.27	0.115-190	0.72
	DT-2RV212-A7	DPDT, 1.19 inch roller lever, reversed	Screw	NA	0.05	10	9-15	0.13	0.050-0.085	1.16

Honeywell



Solid state basic switch

Solid State Basic Switches

The VX Series combines miniature-size construction, operating, and mounting convenience with solid state reliability. The switching element is a Hall effect transducer with a trigger and amplifier integrated on a silicon chip. An integral magnet molded into the plunger actuates the transducer and produces a digital logic-level output.

Features ▶

- Plunger-operated, non-contact digital output
- Industry-standard mounting holes
- Choice of actuator styles

Benefits ▶

- Accepts AMP connector 512-6170 (mfr.'s type 102241-1)
- Reverse voltage protection
- Transistor state: normally off
- Operating temperature: -40°C to +70°C (-40°F to +158°F)

Applications ▶

- Consumer electronics
- Telecommunications equipment

Product Specifications ▶

Part Number	Description	Level Actuation Point (inches)	Operating Force (oz.)	Overtravel (inches)	Pretravel (inches)	Differential Travel (inches)	Operating Position (inches)
VX10	Pin plunger	NA	0.35	0.040	0.0850	0.012	0.580
VX10-A3	Long lever	2.340	0.10	0.160	0.3920	0.052	0.600
VX10-C1	Short roller	0.810	0.40	0.040	0.0098	0.013	0.814
VX80	Pin plunger	NA	3.00	0.040	0.0850	0.012	0.580
VX80-A2	Medium lever	1.400	1.41	0.085	0.2100	0.028	0.604
VX80-B1	Simulated roller	1.285	1.55	0.075	0.2050	0.025	0.729
VX80-C1	Short roller	0.810	3.00	0.040	0.0980	0.013	0.814

Honeywell

SX Series Subminiature Basic Switches

SX Series subminiature basic switches are used for simple or precision on/off application needs. They are small, precision snap-action switches that are ideal where savings in space and weight are important.



Features ▶

- Available in various voltage and current ratings
- Variety of integral and auxiliary actuators
- Elongated mounting hole for easier mounting
- Cover securely cemented to base

Benefits ▶

- Wear-resistant phenolic base and cover
- Operating temperature: -53°C to +121°C (-65°F to +250°F—standard construction)
- UL-recognized, file #E12252
- CSA-certified, file #LR41372

Applications ▶

- Consumer electronics
- Data transmission and telecommunications equipment
- Electronic gambling machines
- Medical equipment
- Test instruments

Product Specifications ▶

	Part Number	Description	Terminal Type	Voltage Rating		Current Rating (A)		Operating Force (oz.)	Pretravel (inches)	Differential Travel (inches)	Operating Position (inches)
				VAC	VDC	AC	DC				
Pin Plunger Switches	3SX1-T	SPDT, gold contacts	Solder	125	28	1	1.0	5.00	0.020	0.005	0.320
	12SX1-T	SPDT, bifurcated gold contacts	Solder	125	28	1	1.0	5.00	0.020	0.003	0.320
	23SX39-T2	SPDT, gold contacts, MS24547-2	Solder	125	28	1	1.0	5.00	0.020	0.005	0.320
	11SX1-T	SPDT, low differential travel	Solder	250	28	3	3.0	3.50	0.020	0.001	0.320
	11SX21-T	SPDT, most applications	Solder	125	28	5	5.0	2.50-5	0.020	0.002	0.320
	11SX22-T	SPDT, for use in sealed enclosures	Solder	250	28	5	5.0	5.00	0.020	0.003	0.320
	17SX21-T	SPDT, stable under varying humidity	Solder	250	28	5	5.0	5.00	0.020	0.002	0.320
	1SX1-H58	SPDT, quick connect terminal	QC 0.250 inch	250	28	7	7.0	5.00	0.020	0.005	0.320
	1SX1-T	SPDT, standard, high current	Solder	250	28	7	7.0	5.00	0.020	0.005	0.320
	1SX12-T	SPDT, low differential travel, high current	Solder	250	28	7	3.5	5.00	0.020	0.002	0.320
	1SX48-T	SPDT, added overtravel	Solder	250	28	7	7.0	5.00	0.020	0.005	0.320
	2SX1-T	SPDT, low force	Solder	NA	28	NA	7.0	3.00	0.020	0.005	0.320
	4SX1-T	SPDT, high temperature	Solder	250	28	7	7.0	5.00	0.020	0.005	0.320
	21SX1-T	SPDT, stable under varying humidity, high current	Solder	250	28	7	7.0	5.00	0.020	0.005	0.320
	21SX39-T	SPDT, MS24547-1, 180°F	Solder	115	28	7	7.0	5.00	0.020	0.005	0.320
	21SX39-T2	SPDT, MS24547-4, 180°F, longer solder terminal	Solder	115	28	7	7.0	5.00	0.020	0.005	0.320
	1SX74-T	SPDT, added overtravel	Solder	250	28	7	7.0	5.00	0.020	0.005	0.320
	412SX21-T	SPDT, gold contacts, high temp. (400°F)	Solder	125	28	1	1.0	5.00	0.020	0.003	0.320
	91SX39-T	SPDT, 0.056 inch wide version	Solder	115	28	7	7.0	5.00	0.020	0.005	0.320
	Lever Switches	311SX1-T	SPDT, straight lever, 0.135 inch	Solder	250	28	5	5.0	1.76	0.065	0.020
311SX2-T		SPDT, straight lever, 0.505 inch	Solder	250	28	5	5.0	1.0	0.115	0.035	0.325
311SX2-T		SPDT, straight lever, 0.505 inch, gold contacts	Solder	125	28	1	1.0	1.0	0.115	0.035	0.325
311SX3-T		SPDT, straight lever, 0.965 inch	Solder	250	28	5	5.0	0.71	0.185	0.060	0.305
311SX4-T		SPDT, simulated roller lever, 0.042 inch	Solder	250	28	5	5.0	2.10	0.050	0.015	0.557
311SX5-T		SPDT, simulated roller lever, 0.459 inch	Solder	250	28	5	5.0	1.10	0.105	0.035	0.585



V7 Series Miniature Basic Switches

V7 Series basic switches are used for simple or precision on/off, end of limit, presence/absence, pressure, temperature, and manual operator interface application needs. There are also various actuator options to meet different application requirements.

Features ▶

- Physically interchangeable with existing V3 switches
- Quick connect terminals

Benefits ▶

- Operating temperature: -40°F to +300°F
- UL-recognized, file #E12252
- CSA-certified, file #LR41370
- ENEC, SE/0145-3

Applications ▶

- Consumer electronics
- Data transmission and telecommunications equipment
- Vending machines
- Appliances
- Office equipment

Product Specifications ▶

	Part Number	Description	Terminal Type (inches)	Voltage Rating		Current Rating (A)		Operating Force (oz.)	Pretravel (inches)	Differential Travel (inches)	Operating Position (inches)
				VAC	VDC	AC	DC				
Pin Plunger	V7-1S17D8	SPDT, gold contacts	QC 0.187	125	NA	0.1	NA	5.30	0.047	0.002-0.010	0.578
	V7-2B17D8	SPDT, low force	QC 0.187	277	250	11.0	0.25	2.60	0.047	0.002-0.010	0.578
	V7-2B17E9	SPDT, low force, wide terminal spacing	QC 0.250	277	NA	11.0	0.25	2.70	0.047	0.002-0.010	0.578
	V7-1V19E9	SPDT, high AC current rating, wide terminal spacing	QC 0.250	277	NA	21.0	NA	7.90	0.047	0.002-0.010	0.578
	V7-1C17E9	SPDT, standard, wide terminal spacing	QC 0.250	277	250	15.1	0.25	5.30	0.047	0.002-0.010	0.578
	V7-1C27E9	SPNO, wide terminal spacing	QC 0.250	277	250	15.1	0.25	5.30	0.047	0.002-0.010	0.578
	V7-1V29E9	SPNO, high AC current rating, wide terminal spacing	QC 0.250	277	NA	21.0	NA	7.90	0.047	0.002-0.010	0.578
	V7-2B27E9	SPNO, low force, wide terminal spacing	QC 0.250	277	250	11.0	0.25	2.70	0.047	0.002-0.010	0.578
Lever Switches	V7-1B17D8-022	SPDT, straight lever, 1.4 inch	QC 0.187	277	250	11.0	0.25	2.90	0.120	0.027	0.603
	V7-1C17D8-022	SPDT, straight lever, 1.4 inch	QC 0.187	277	250	15.1	0.25	2.90	0.110	0.030	0.600
	V7-1S17D8-022	SPDT, straight lever, 1.4 inch	QC 0.187	125	NA	0.1	NA	3.00	0.120	0.030	0.600
	V7-2B17D8-022	SPDT, straight lever, 1.4 inch, low force	QC 0.187	277	250	11.0	0.25	1.50	0.120	0.027	0.603
	V7-2B17D8-048	SPDT, straight lever, 2.34 inch	QC 0.187	277	250	11.0	0.25	0.70	0.235	0.050	0.603
	V7-1C17D8-048	SPDT, straight lever, 2.34 inch	QC 0.187	277	250	15.1	0.25	1.60	0.085	0.060	0.600
	V7-1C17D8-263	SPDT, simulated roller, 1.29 inch	QC 0.187	277	250	15.1	0.25	3.20	0.110	0.024	0.730
	V7-1C27E9-263	SPDT, simulated roller, 1.29 inch	QC 0.250	277	250	15.1	0.25	3.20	0.107	0.025	0.728
	V7-1B17D8-263	SPDT, simulated roller, 1.29 inch	QC 0.187	277	250	11.0	0.25	3.15	0.120	0.060	0.730
	V7-2B17D8-201	SPDT, roller lever, 0.81 inch	QC 0.187	277	250	11.0	0.25	3.10	0.052	0.012	0.803
	V7-1C17D8-201	SPDT, roller lever, 0.81 inch	QC 0.187	277	250	15.1	0.25	6.20	0.047	0.012	0.810
	V7-7B17D8-201	SPDT, roller lever, 0.81 inch	QC 0.187	277	250	11.0	0.25	10.00	0.056	0.013	0.808
	V7-1C17E9-207	SPDT, roller lever, 1.34 inch	QC 0.250	277	250	15.1	0.25	3.00	0.112	0.025	0.810
	V7-1C17D8-207	SPDT, roller lever, 1.34 inch	QC 0.187	277	250	15.1	0.25	3.20	0.115	0.025	0.810
	V7-2A17D8-207	SPDT, roller lever, 1.34 inch, low force	QC 0.187	277	NA	5.0	NA	1.50	0.115	0.025	0.810
	V7-2B17D8-207	SPDT, roller lever, 1.34 inch	QC 0.187	277	250	11.0	0.25	21.60	0.115	0.025	0.810

Honeywell

Z Series Basic Switches

Z Series basic switches are used for simple on/off application needs. These switches are available in four types: ZM—subminiature, integral levers available; CE: 61058-1, UL: E12252, and CSA: 212438; ZX—sub-subminiature, integral levers available; CE: 61058-1, UL: E12252, and CSA: 212438; ZV—subminiature, snap-on levers available; CE: 61058-1 and UL/c-UL: E12252; ZW—sealed ZV switch style; CE: 61058-1 and UL/c-UL: E12252, ENEC, SE/0145-3.



Features ▶

- Range of voltage and current ratings
- Straight, roller, simulated roller, and special actuators
- Variety of integral and snap-on actuators
- Solder, PCB-straight, and angled, quick connect, special terminations

Benefits ▶

- Application flexibility
- Gold-plated contacts for low-voltage applications
- IP67-sealed construction available for applications in wet environments

Applications ▶

- Consumer electronics
- Data transmission and telecommunications equipment
- Vending machines
- Medical equipment
- Test instruments

Product Specifications ▶

	Part Number	Description	Terminal Type	Voltage Rating		Current Rating (A)		Operating Force (oz.)	Pretravel (inches)	Differential Travel (inches)	Operating Position (inches)
				VAC	VDC	AC	DC				
Pin Plunger	ZM90G20A01	SPDT, silver contacts	PCB	125/250	NA	10.1	NA	8.78	0.043	0.008	0.449 ±0.012
	ZM10B10A01	SPDT, gold-plated contacts	Solder	125	NA	0.1	NA	2.12	0.043	0.008	0.449 ±0.012
	ZX40E30A01	SPDT, silver contacts	PCB	125	NA	3.0	NA	5.30	0.051	0.012	0.276 ±0.012
	ZX10C10A01	SPDT, gold-plated contacts	Solder	NA	48	NA	0.1	3.17	0.051	0.012	0.276 ±0.012
	ZV50E10A01	SPDT, silver contacts	Solder	125/250	NA	6.0	NA	5.15	0.043	0.008	0.449 ±0.012
	ZV10B70A01	SPDT, gold-plated contacts	QC 0.110 inch	125/250	30	5.0	0.1	2.29	0.043	0.008	0.449 ±0.012
	ZW50F15AD1	SPDT, silver contacts	Solder	125/250	NA	6.0	NA	7.16	0.047	0.008	0.331 ±0.012
Lever Switches	ZM50E70D01	SPDT, straight lever, 0.98 inch	QC 0.110 inch	125/250	NA	5.0	NA	0.88	0.240	0.059	0.465 ±0.059
	ZX40E30C01	SPDT, straight lever, 0.51 inch	PCB	125	NA	3.0	NA	1.76	0.134	0.051	0.331 ±0.032
	ZV50E10B01	SPDT, straight lever, 0.69 inch	Solder	125/250	NA	6.0	NA	1.80	0.181	0.032	0.465 ±0.043
	ZV50E70C01	SPDT, straight lever, 0.76 inch	QC 0.110 inch	125/250	NA	6.0	NA	1.59	0.201	0.032	0.645 ±0.047
	ZW10E15CD1	SPDT, straight lever, 0.76 inch, gold-plated contacts	Solder	125/250	NA	0.1	NA	1.94	0.189	0.028	0.347 ±0.047
	ZM50E10E01	SPDT, simulated roller lever, 0.71 inch	Solder	125/250	NA	5.0	NA	1.23	0.205	0.035	0.591 ±0.059
	ZX40E10E01	SPDT, simulated roller lever, 0.47 inch	Solder	125	NA	3.0	NA	1.94	0.150	0.051	0.437 ±0.032
	ZW10E90FW1	SPDT, roller lever, 0.68 inch, gold-plated contacts	Cable	125/250	NA	0.1	NA	2.29	0.169	0.024	0.571 ±0.043

Honeywell



OP and LN enclosed basic switches

OP and LN Series Enclosed Basic Switches

LN switches can withstand rapid hammer-blow actuation because impact on the actuating plunger cannot reach the precision switch unit inside. Individual seals around each leadwire and cover plate protect the switch cavity from condensation, oil, and dust. OP enclosed switches are precision snap-action switches sealed in rugged cast-aluminum housings. The cover and shaft seals keep out moisture and contaminants on rotary-operated switches.

Features ▶

- LN: Cast-zinc housing
- LN: Positioning dowel holes
- OP: Cover seal and captive cover screws
- OP: Mounts from four sides
- OP: Roller arm adjustable through 360°

Benefits ▶

- #14 HWM wire leads (LN Series)
- UL-recognized, file #E12252
- CSA-certified, file #LR41372
- Sealing: NEMA 1, 3, 4, and 13
- Operating temperature: -25°F to +131°F

Applications ▶

- Machine tools
- Stamping machines
- Applications where shock and vibration are present

Product Specifications ▶

Part Number	Description	Mounting	Voltage Rating		Current Rating		Operating Force (lb.)	Pretravel (inches)	Differential Travel (inches)	Overtravel
			VAC	VDC	AC	DC				
BZLN-RH	SPDT, straight plunger, 1 ft. wire leads	Right-hand	480	250	15	0.25	5	0.008-0.020	0.004	0.203 inch
OP-AR	15A, SPDT, adjustable roller lever, clockwise actuation	NA	NA	NA	NA	NA	0.5-1.25	0.219	0.007	90°
OP-AR62	Same as OP-AR except no mounting bracket	NA	NA	NA	NA	NA	1.5-1.25	0.219	0.007	90°
OPD-AR	10A, DPDT, adjustable roller lever, clockwise actuation	NA	NA	NA	NA	NA	0.5-1.50	0.250	0.109	25°

Honeywell

BZ Enclosed Basic Switches

Honeywell's enclosed basic switches are known for high precision and low cost. The BZE6 line is one of the most popular enclosed basic switch lines used in industry today.



BZ enclosed basic switches

Features ▶

- Momentary or maintained contact
- Cast zinc housing
- Side- or flange-mount options
- Gold contacts and low temp. -32°C to +71°C (-25°F to +160°F)
- BZG: mounting holes located outside the switch cavity

Benefits ▶

- #6 mounting screws on typical; #10 mounting screws on BZG
- UL-recognized, file #E12252
- CSA-certified, file #LR41372
- Sealing: E6 style (NEMA 1), V6 style (NEMA 1, 3); BZG style (NEMA 1, 3, 4, 13)
- Operating temperature: -25°F to +160°F
- BZE6 Series is CE-approved

Applications ▶

- Packaging equipment
- Textile machinery
- Conveyors
- Construction machinery and equipment
- Overhead cranes and hoists

Product Specifications ▶

Part Number	Description	Mounting	Voltage Rating		Current Rating (A)		Operating Force (oz.)	Pretravel	Differential Travel (inches)	Overtravel (inches)
			VAC	VDC	AC	DC				
BZE6-2RN	SPDT, straight plunger, seal boot	Side	480	250	15	0.25	9-24	0.078 inch	0.002	0.219
BZE6-2RN18	SPDT, coil spring wobble lever, seal boot	Side	480	250	15	0.25	7	15°	NA	NA
BZE6-2RN2	SPDT, adj. roller lever actuator, seal boot	Side	480	250	15	0.25	10-20	0.188 inch	0.006	0.219
BZE6-2RN28	SPDT, one-way roller lever actuator, seal boot	Side	480	250	15	0.25	8-20	0.234 inch	0.006	0.219
BZE6-2RN7	SPDT, straight plunger, seal boot, #8 mounting screws	Side	480	250	15	0.25	9-24	0.078 inch	0.002	0.219
BZE6-2RN80	SPDT, roller plunger actuator, seal boot	Side	480	250	15	0.25	9-24	0.078 inch	0.002	0.219
BZE6-2RQ	SPDT, straight plunger actuator, no seal boot	Side	480	250	15	0.25	9-13	0.015 inch	0.002	0.219
BZE6-2RQ2	SPDT, adjustable roller lever actuator, no seal boot	Side	480	250	15	0.25	10-18	0.188 inch	0.006	0.219
BZE6-2RQ8	SPDT, roller plunger actuator, no seal boot	Side	480	250	15	0.25	9-13	0.015 inch	0.002	0.140
BZE6-2RQ81	SPDT, cross-roller plunger actuator, no seal boot	Side	480	250	15	0.25	9-13	0.015 inch	0.002	0.140
BZE6-2RQ9	SPDT, field adjustable roller plunger actuator, no seal boot	Side	480	250	15	0.25	9-13	0.015 inch	0.002	0.140
BZE6-RNX1	SPDT, straight plunger, seal boot, manual reset	Side	480	250	15	0.25	6-9.5	0.012 inch	NA	0.187
BZE6-2RN34	SPDT, straight plunger, seal boot, gold contacts, with low temp. -32°C to +71°C (-25°F to +160°F) capabilities	Side	480	250	15	0.25	9-24	0.078 inch	0.002	0.219
BZE6-2RN72	SPDT, straight plunger, seal boot, gold contacts	Side	480	250	15	0.25	9-24	0.078 inch	0.002	0.219
BZV6-2RN	SPDT, straight plunger, seal boot	Flange	480	250	15	0.25	9-24	0.078 inch	0.002	0.219
BZV6-2RN2	SPDT, adjustable roller lever actuator, seal boot	Flange	480	250	15	0.25	10-20	0.188 inch	0.006	0.219
DTE6-2RN	DPDT, straight plunger, seal boot	Side	250	250	10	0.15	26-59	0.125 inch	0.011	0.060
DTE6-2RN2	DPDT, adjustable roller lever actuator, seal boot	Side	250	250	10	0.15	10-30	0.266 inch	0.165	0.219
BZG1-2RN	SPDT, straight plunger, seal boot	Side	480	250	15	0.15	39-49	0.078 inch	0.002	0.219



NT and TL series toggle switches

Toggle Switches

Honeywell toggle switches are designed to achieve a balance between harmonious appearance and ergonomics, and to accommodate a wide range of electrical and display designs. The switches are available in many shapes, sizes, configurations, and colors, which enable a flexible and attractive interface. Honeywell toggle switches meet severe-environment needs for rugged, cost-effective solutions. Construction features include a one-piece seal between the toggle lever and the bushing, and between the cover and base.

Features ▶

- Completely-sealed switching chamber
- 1-, 2-, 4-pole circuitry
- 2 or 3 positions, maintained and momentary action
- Sealed-bushing versions available
- Saves space and weight

Benefits ▶

- RoHS compliant
- Operating temperature: -40°C to +71°C (-40°F to +160°F)
- 15/32 in bushing
- UL-recognized, file #E12252, vol. 1, section 44
- CSA-certified, file #LR4442

Applications ▶

- Industrial equipment
- Military and commercial aviation
- Construction equipment
- Test instruments
- Agricultural machinery

Product Specifications ▶

Electrical Rating Code	28 VDC (ind.)	28 VDC (res.)	28 VDC (lamp)	115 VDC (res.)	250 VDC (res.)	115 VAC, 60 Hz and 400 Hz (ind.)	115 VAC, 60 Hz and 400 Hz (res.)	115 VAC, 60 Hz and 400 Hz (lamp)	230 VAC
1	12	20	5	0.75	0.5	10	15	3	6
2	10	15	4	0.75	0.5	7	15	2	6
3	15	20	7	0.75	0.5	15	15	4	6
4	10	18	5	0.75	0.5	18	11	2	6
5	12	20	5	0.75	0.5	15	15	4	6
6	10	18	4	0.75	0.5	8	11	2	6

Part Number	Description	Electrical Rating Code	Keyway Position	Center Position	Opposite Position	Terminals	Mil-Spec Number
1NT1-2	SPST, 2-position	1	Off	NA	On	Screw	NA
1NT1-6	SPST, 2-position	2	On (mom.)	NA	On	Screw	NA
1NT1-7	SPDT, 3-position	2	On (mom.)	On	On (mom.)	Screw	NA
2NT1-1	DPDT, 3-position	3	On	Off	On	Screw	NA
2NT1-2	DPST, 2-position	3	Off	NA	On	Screw	NA
2NT1-5	DPDT, 3-position	4	On (mom.)	Off	On	Screw	NA
2NT1-12	DPDT, 3-position	3	On	On	On	Screw	NA
2NT91-7	DPDT, 3-position	4	On	Off	On	QC	NA
31NT91-2	SPDT, 3-position	1	Off	NA	On	QC	NA
31NT91-3	SPST, 2-position	1	On	NA	On	QC	NA
32NT91-1	DPDT, 3-position	3	On	Off	On	QC	NA
32NT91-7	DPDT, 3-position	4	On (mom.)	Off	On (mom.)	QC	NA
4NT1-2	4PDT, 3-position	5	On	Off	On	Screw	NA
4NT1-7	4PDT, 3-position	6	On (mom.)	Off	On (mom.)	Screw	NA
61NT1-7	DPDT, 3-position	4	On	Off	On	Screw	NA
1TL1-1	SPDT, 3-position	1	On	Off	On	NA	MS24523-21
1TL1-2 (D - locking)	SPST, 2-position	1	Off	NA	On	NA	MS24523-22
1TL1-3 (locking available)	SPDT, 2-position	1	On	NA	On	NA	MS24523-23
1TL1-5	SPDT, 3-position	1	On (mom.)	Off	On	NA	MS24523-31
1TL1-6	SPST, 2-position	2	On (mom.)	NA	Off	NA	MS24523-30
1TL1-8	SPDT, 2-position	2	On (mom.)	NA	On	NA	MS24523-26
2TL1-1	DPDT, 3-position	3	On	Off	On	NA	MS24524-21
2TL1-1E	DPDT, 3-position	3	On	Off	On	NA	MS24659-21E
2TL1-10 (A - locking)	DPDT, 3-position	3	On	On	On	NA	MS27407-4
2TL1-2	DPDT, 2-position	3	Off	NA	On	NA	MS24524-22
2TL1-3 (D - locking)	DPDT, 2-position	3	On	NA	On	NA	MS24524-23
2TL1-50	DPDT, 3-position	4	On (mom.)	On	On	NA	MS27407-5
2TL1-6	DPDT, 2-position	4	On (mom.)	NA	Off	NA	MS24524-30
2TL1-7	DPDT, 3-position	4	On (mom.)	Off	On (mom.)	NA	MS24524-27
2TL1-70	DPDT, 3-position	4	On (mom.)	On	On (mom.)	NA	MS27407-6
2TL1-8	DPDT, 2-position	4	On (mom.)	NA	On	NA	MS24524-26
4TL1-1	4PDT, 3-position	5	On	Off	On	NA	MS24525-21
4TL1-12	4PDT, 3-position	5	On	On	On	NA	MS27406-1
4TL1-2	4PDT, 2-position	5	Off	NA	On	NA	MS24525-22
4TL1-3 (locking available)	4PDT, 2-position	5	On	NA	On	NA	MS24525-23
4TL1-7	4PDT, 3-position	6	On (mom.)	Off	On (mom.)	NA	MS24525-27

Honeywell

Hobbs Hour Meters

These accurate and dependable meters help customers protect their investments by indicating when equipment needs to be serviced. The meters include LCD, counter, battery-controller, AC electromechanical, and DC electromechanical versions. Products are totally sealed for protection against moisture and dirt, and the rugged design provides excellent shock and vibration resistance.



Features ▶

- Custom, CMOS-integrated circuit (85000 series)
- Totally-sealed case
- Shock and vibration-resistant
- UL-recognized and CSA-certified

Benefits ▶

- Hobbs legendary performance and reliability in a technically advanced package
- Used in a variety of AC or DC applications that require an hour meter, counter, or odometer for maintenance, warranty, renting, and/or leasing
- Custom logo dials available
- Products are sealed for protection against moisture and dirt

Applications ▶

- Lawn and garden tractors, farm equipment
- HVAC and furnaces
- Generators, compressors, and pumps
- Construction equipment, recreational and utility vehicles
- Industrial equipment and business machines

Product Specifications ▶

Part Number	Manufacturer's Type	Series	Description	Voltage Range	Electrical Termination	Frequency (Hz)
611-3000	85094-12	85000	2-screw mount	10 VDC-80 VDC	1/4 inch blade	NA
611-3001	85331-12	85000	2-screw mount	6.5 VDC-16 VDC	1/4 inch blade	NA
611-8512	85127	85000	2-screw mount	10 VDC-80 VDC	#8-32 stud	NA
611-3002	85097-02	85000	3-screw mount	10 VDC-80 VDC	1/4 inch blade	NA
611-3003	85093-03	85000	Round (2.27 inch black bezel)	10 VDC-80 VDC	1/4 inch blade	NA
611-3004	85342-03	85000	Round (2.27 inch chrome bezel)	10 VDC-80 VDC	1/4 inch blade	NA
611-3012	98313 12	98000	2-screw mount	9 VDC-64 VDC	1/4 inch blade	NA
611-0018	98303 92	98000	2-screw mount, resettable	9 VDC-64 VDC	1/4 inch blade	NA
611-0020	98301 94	98000	Retainer-mount, resettable	9 VDC-64 VDC	1/4 inch blade	NA
611-3013	98311 57	98000	Retainer-mount	9 VDC-64 VDC	1/4 inch blade	NA
611-0021	98302 93	98000	Round (2.27 inch black bezel), resettable	9 VDC-64 VDC	1/4 inch blade	NA
611-3014	98312 03	98000	Round (2.27 inch black bezel)	9 VDC-64 VDC	1/4 inch blade	NA
611-0024	98704 100	98000	PCB mount counter, resettable	9 VDC-64 VDC	4 term.	NA
611-0025	98706 100	98000	PCB mount hour meter, resettable	9 VDC-64 VDC	4-pin	NA
611-0026	98706 101	98000	PCB mount hour meter	9 VDC-64 VDC	4-pin	NA
611-0027	98707 100	98000	PCB mount hour meter	4.5 VDC-16 VDC	4-pin	NA
611-9998	20001-17	20000	2-screw mount	108 VAC-132 VAC	8-32	60
611-3006	20007-17	20000	2-screw mount	216 VAC-264 VAC	8-32	60
611-2002	20028-17	20000	2-screw mount	108 VAC-132 VAC	8-32	50
611-0016	20029-17	20000	2-screw mount	216 VAC-264 VAC	8-32	50
611-0017	20035-17	20000	2-screw mount	108 VAC-132 VAC	Wire lead	60
611-2017	20017-14	20000	3-screw mount	108 VAC-132 VAC	8-32	60
611-2019	20019-14	20000	3-screw mount	216 VAC-264 VAC	8-32	60
611-3009	20116-23	20000	Retainer-mount	108 VAC-132 VAC	8-32	60
611-3010	20177-23	20000	Retainer-mount	216 VAC-264 VAC	8-32	60
611-3011	20182-23	20000	Retainer-mount	108 VAC-132 VAC	1/4 inch blade	60

Arrow Industrial Selector Guide

800-349-4960 | www.arrownac.com/industrial

Honeywell



Safety Electromechanical Products— Key-Operated, Cable Pull, and Hinge

Honeywell's safety switch product family has recently been expanded to improve our offering to OEMs. Our products offer functional yet cost-effective safety switching solutions for machines. We draw on 75 years of experience in switch manufacturing to provide outstanding safety switching solutions for your applications. Honeywell now has a complete offering of products for virtually all your safety switching needs.

Features ▶

- Distinctive red body/black head
- Robust enclosure designs
- OEM-focused products

Benefits ▶

- Immediately recognizable in applications as a safety product
- Designed for the rough-and-tumble daily life of a machine

Applications ▶

- Machine tool and plastic molding
- Material handling (conveyors)
- Packaging and wrapping
- Textiles
- Bespoke machine solutions

Product Specifications ▶

Part Number	Series	Description	Contact Configuration (NC is Safety Contact)	Body Material	Actuator	Sealing	Temperature Range °C [°F]	Approvals
GKMA33	GKM	Miniature side-exit 3m cable	1NC+1NO	Glass-filled polyester	GKZ51M or GKZ52M	IP66/67; EN 60529; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKMA36	GKM	Miniature side-exit 3m cable	2NC	Glass-filled polyester	GKZ51M or GKZ52M	IP66/67; EN 60529; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKMB33	GKM	Miniature bottom-exit 3m cable	1NC+1NO	Glass-filled polyester	GKZ51M or GKZ52M	IP66/67; EN 60529; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKMB36	GKM	Miniature bottom-exit 3m cable	2NC	Glass-filled polyester	GKZ51M or GKZ52M	IP66/67; EN 60529; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKMC03	GKM	Miniature side-exit connector	1NC+1NO	Glass-filled polyester	GKZ51M or GKZ52M	IP66/67; EN 60529; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKMD03	GKM	Miniature bottom-exit connector	1NC+1NO	Glass-filled polyester	GKZ51M or GKZ52M	IP66/67; EN 60529; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKZ51M	GKM	Straight key (GKE and GKM)	NA	NA	NA	NA	NA	NA
GKZ52M	GKM	90° key (GKE and GKM)	NA	NA	NA	NA	NA	NA
GKNA21	GKN	3 x 1/2 inch NPT conduit	2NC+1NO	Glass-filled polyester	NA	IP67; NEMA 1, 4, 12, 13	+25 to +70 [-13 to +158]	cULus, CE, CCC
GKNA30	GKN	3 x 1/2 inch NPT conduit	3NC	Glass-filled polyester	NA	IP67; NEMA 1, 4, 12, 13	+25 to +70 [-13 to +158]	cULus, CE, CCC
GKZ41	GKN	Straight key (GKN)	NA	NA	NA	NA	NA	NA
GKZ42	GKN	90° key (GKN)	NA	NA	NA	NA	NA	NA
GKEA03L	GKE	BBM 1/2 inch NPT conduit	1NC+1NO	Glass-filled polyester	GKZ51M or GKZ52M	IP66; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	cULus, CE,
GKEA06L	GKE	1/2 inch NPT conduit	2NC	Glass-filled polyester	GKZ51M or GKZ52M	IP66; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	cULus, CE,
GKBA10LX	GK	1/2 inch NPT conduit	4NC	Zinc diecast	GKZ56 or GKZ57	IP67, NEMA 1, 4, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKBA14LX	GK	1/2 inch NPT conduit	2NC+2NO	Zinc diecast	GKZ56 or GKZ57	IP67, NEMA 1, 4, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKBA1LX	GK	1/2 inch NPT conduit	1NC+1NO	Zinc diecast	GKZ56 or GKZ57	IP67, NEMA 1, 4, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKZ56	GK	Straight key (GK and GKL/GKR)	NA	NA	NA	NA	NA	NA
GKZ57	GK	90° key (GK and GKL/GKR)	NA	NA	NA	NA	NA	NA
GKLE36PXA2	GKL/R	1/2 inch NPT, head left	3NC+1NO	Zinc diecast	GKZ56 or GKZ57	IP68, NEMA 1, 4, 6P, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GKRE36MXA2	GKL/R	1/2 inch NPT, head right	3NC+1NO	Zinc diecast	GKZ56 or GKZ57	IP68, NEMA 1, 4, 6P, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
1CPSA2	1CPS	Cable pull, maintained, 1/2 inch NPT conduit	2NC+2NO	Zinc diecast	Rope	IP67, NEMA 1, 4, 12, 13	+40 to +85 [-40 to +185]	UL, CSA, CE
1CPSA2B	1CPS	Cable pull, maintained, 1/2 inch NPT conduit	2NC+2NO	Zinc diecast	Rope	IP67, NEMA 1, 4, 12, 13	+40 to +85 [-40 to +185]	UL, CSA, CE
2CPSA1A1	2CPS	Two-head cable pull, maintained, 1/2 inch NPT conduit	2NC+2NO	Zinc diecast	Rope	IP67, NEMA 1, 4, 12, 13	+40 to +85 [-40 to +185]	UL, CSA, CE
2CPSA1A1B	2CPS	Two-head cable pull, maintained, 1/2 inch NPT conduit	2NC+2NO	Zinc diecast	Rope	IP67, NEMA 1, 4, 12, 13	+40 to +85 [-40 to +185]	UL, CSA, CE
GSDA01S1	GSS-Hinge	Hinge center-to-left actuation 1/2 inch NPT conduit	1NC+1NO	Glass-filled polyester	Hinge included	IP66; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSDA01S2	GSS-Hinge	Hinge center-to-left/right actuation 1/2 inch NPT conduit	1NC+1NO	Glass-filled polyester	Hinge included	IP66; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSDA01S3	GSS-Hinge	Hinge center-to-right actuation 1/2 inch NPT conduit	1NC+1NO	Glass-filled polyester	Hinge included	IP66; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSEA46S1	GSS-Hinge	Hinge center-to-left actuation 1/2 inch NPT conduit x 3	3NC+1NO	Zinc diecast	Hinge included	IP66; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSEA46S2	GSS-Hinge	Hinge center-to-left/right actuation 1/2 inch NPT conduit x 3	3NC+1NO	Zinc diecast	Hinge included	IP66; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSEA46S3	GSS-Hinge	Hinge center-to-right actuation 1/2 inch NPT conduit x 3	3NC+1NO	Zinc diecast	Hinge included	IP66; NEMA 1, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSAA20A1B	GSS	Safety limit switch 2NC+2NO 1/2 inch NPT conduit	2NC+2NO	NA	Fixed-lever metal roller included	IP67, NEMA 1, 4, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSAA20B	GSS	Metal 2NC+2NO 1/2 inch NPT conduit	2NC+2NO	NA	Pin plunger included	IP67, NEMA 1, 4, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSAA20C	GSS	Metal 2NC+2NO 1/2 inch NPT conduit	2NC+2NO	NA	Roller plunger included	IP67, NEMA 1, 4, 12, 13	+25 to +85 [-13 to +185]	UL, CSA, CE
GSAA20D	GSS	Metal 2NC+ 2NO 1/2 inch NPT conduit	2NC+2NO	NA	Roller lever arm included	IP67, NEMA 1, 4, 12, 13	25 to +85 [-13 to +185]	UL, CSA, CE
GKSA46LA2	GKS	1/2 inch conduit head to front, power to unlock, 24 VDC solenoid	3NC+1NO	Glass-filled polyester	GKZS6 or GKZS7	IP67, NEMA 1, 4, 12, 13	25 to +85 [-13 to +185]	cULus, CE, CCC
GKSA46LA5	GKS	1/2 inch conduit head to front, power to unlock, 110 VAC solenoid	3NC+1NO	Glass-filled polyester	GKZS6 or GKZS7	IP67, NEMA 1, 4, 12, 13	25 to +85 [-13 to +185]	cULus, CE, CCC
GKZS6	GKS	Straight key (GKS)	NA	NA	NA	NA	NA	NA
GKZS7	GKS	90° key (GKS)	NA	NA	NA	NA	NA	NA

Honeywell

Rocker Switches

Honeywell rocker switches are designed to achieve a balance between a harmonious appearance and ergonomics, and to accommodate a wide range of electrical and display designs. They are available in many shapes, sizes, and configurations, allowing customers to enhance manual operation with a flexible and attractive interface. Flush or panel-mount versions with silver or gold contacts meet a variety of electrical load requirements. Military-grade and environment-sealed options are available.



Rocker switches

Features ▶

- Variety of aesthetic and functional options ranging from circuit configurations to AC and DC ratings
- Industry-standard dimensions
- Easy snap-in mounting method
- Single-level termination for ease of wiring
- Easy to relamp from the front of the panel without tools

Benefits ▶

- UL-recognized
- CSA-certified
- RoHS compliant

Applications ▶

- Control boards and panels
- Industrial and test equipment
- Process control
- Medical instrumentation
- Severe environment applications

Product Specifications ▶

Part Number	Description	Terminals	Circuitry	Lighting Option	Button/Lens Style	Voltage Max. (VAC)	Voltage Max. (VDC)	Current Max. (AC)	Current Max. (DC)	Lamp
AML24EBA2BC01	2-position, maint./maint., gold contacts, non-lit	QC/solder	DPDT	NA	AML 54	125	125	0.1	0.1	NA
AML24EBA2AA01	2-position, maint./maint., silver contacts, lit	QC/solder	SPDT	NA	AML 54	250	24	3	2	NA
AML24EBA2AA06	3-position, maint./maint./mom., silver contacts, lit	QC/solder	SPDT	NA	AML 54	250	24	3	2	NA
AML34FBA4AC01	2-position, maint./maint., non-lit	QC/solder	DPDT	NA	AML 54	250	NA	15	NA	NA
MR93-12BBN	2-position, non-lit miniature rocker switch	Quick connect	SPDT	NA	NA	NA	NA	NA	NA	NA
MR93-122B3	2-position, lit miniature rocker switch	Quick connect	SPDT	Clear red	NA	NA	NA	NA	NA	12V LED
MR93-124B3	2-position, lit miniature rocker switch	Quick connect	SPDT	Clear green	NA	NA	NA	NA	NA	12V LED
MR93-122BJ	2-position, lit miniature rocker switch	Quick connect	SPDT	Clear red	NA	NA	NA	NA	NA	125V neon
MR93-121BK	2-position, lit miniature rocker switch	Quick connect	SPDT	Clear amber	NA	NA	NA	NA	NA	250V neon
MRS93-12BB	3-position [off, none, on], non-lit miniature rocker switch	Quick connect	SPDT	NA	NA	NA	NA	NA	NA	NA
MRS93-13BB	3-position [on, none, on], non-lit miniature rocker switch	Quick connect	SPDT	NA	NA	NA	NA	NA	NA	NA
MRS93-11BB	3-position [on, off, on], non-lit miniature rocker switch	Quick connect	SPDT	NA	NA	NA	NA	NA	NA	NA
MRS93-15BB	3-position [(on), off, on], non-lit miniature rocker switch	Quick connect	SPDT	NA	NA	NA	NA	NA	NA	NA
FRN91-12BB (22BB)	3-position [off, none, on], full-sized sealed rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
FRN91-16BB (26BB)	3-position [off, none, (on)], full-sized sealed rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
FRN91-14BB (24BB)	3-position [(off), none, on], full-sized sealed rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
FRN91-13BB (23BB)	3-position [on, none, on], full-sized sealed rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
FRN91-18BB (28BB)	3-position [(on), none, on], full-sized sealed rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
FRN91-11BB (21BB)	3-position [on, off, on], full-sized sealed rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
FRN91-15BB (25BB)	3-position [(on), off, on], full-sized sealed rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
FRN91-17BB (27BB)	3-position [(on), off, (on)], full-sized sealed rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
FRL91-22CGA3-BB79	3-position [off, none, on], full-sized lit sealed rocker switch	Quick connect	DPDT	Green/amber	NA	NA	NA	NA	NA	12V LED
FRL91-21CGG3-BB77	3-position [on, off, on], full-sized lit sealed rocker switch	Quick connect	DPDT	Green/green	NA	NA	NA	NA	NA	12V LED
FRL91-27CGG3-BB77	3-position [(on), off, (on)], lit full-sized sealed rocker switch	Quick connect	DPDT	Green/green	NA	NA	NA	NA	NA	12V LED
SRN91-12BB (22BB)	3-position [off, none, on], full-sized non-lit rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
SRN91-16BB (16BB)	3-position [off, none, (on)], full-sized non-lit rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
SRN91-14BB (24BB)	3-position [(off), none, on], full-sized non-lit rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
SRN91-13BB (23BB)	3-position [on, none, on], full-sized non-lit rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
SRN91-18BB (28BB)	3-position [(on), none, on], full-sized non-lit rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
SRN91-11BB (21BB)	3-position [on, off, on], full-sized non-lit rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
SRN91-15BB (25BB)	3-position [(on), off, on], full-sized non-lit rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
SRN91-17BB (27BB)	3-position [(on), off, (on)], full-sized non-lit rocker switch	Quick connect	SPDT (DPDT)	NA	NA	NA	NA	NA	NA	NA
SRL91-22ARN3-BB9N	3-position [off, none, on], full-sized lit rocker switch	Quick connect	DPDT	Red/none	NA	NA	NA	NA	NA	12V LED
SRL91-23URR3-BB99	3-position [on, none, on], full-sized lit rocker switch	Quick connect	DPDT	Red/red	NA	NA	NA	NA	NA	12V LED
SRL91-21URR3-BB99	3-position [on, off, on], full-sized lit rocker switch	Quick connect	DPDT	Red/red	NA	NA	NA	NA	NA	12V LED
SRL91-27URR3-BB99	3-position [(on), off, (on)], full-sized lit rocker switch	Quick connect	DPDT	Red/red	NA	NA	NA	NA	NA	12V LED
SRL91-22UGA3-BB99	3-position [off, none, on], full-sized lit rocker switch	Quick connect	DPDT	Green/amber	NA	NA	NA	NA	NA	12V LED
SRL91-23UGG3-BB99	3-position [on, none, on], full-sized lit rocker switch	Quick connect	DPDT	Green/green	NA	NA	NA	NA	NA	12V LED
SRL91-22UGG3-BB99	3-position [off, none, on], full-sized lit rocker switch	Quick connect	DPDT	Green/green	NA	NA	NA	NA	NA	12V LED



IP-Rated, Environmentally Sealed Switches

NKK offers a complete series of cost-effective, environmentally sealed switches for use in outdoor or harsh applications. The sealed construction of the standard-size rocker, toggle, and pushbutton switches conforms to IP67 of IEC60529. A recent addition to the rocker series includes a sealed switch with 0.250" quick connect terminals. These terminals reduce and simplify assembly time and allow more widespread use in applications requiring high-current switching.

Features ▶

- Sealed construction meets IP67 and IP60 of IEC60529
- Single-pole rockers and pushbuttons, single- and double-pole toggles
- Specially designed switching mechanism for breaking light welds
- Available with solder lug, screw lug, wire leads; quick connect option for rockers
- Minimal contact bounce

Benefits ▶

- High capacity
- Outer case epoxy seals wire leads
- 12 mm bushing for toggles and pushbuttons
- UL, C-UL, and VDE certifications (rockers only)
- UL94V-0 outer housing

Applications ▶

- AC motor control
- Refrigeration systems
- Monitoring equipment
- Biomedical instruments
- Control panels

Product Specifications ▶

	Part Number	Pole and Throw	Circuit () = Momentary	Front Panel Rating	Back Panel Rating	Terminal	Mechanical Life (Operations Min.)	Electrical Life (Operations Min.)
Toggle Switches with Maximum Power Rating 10A @ 125 VAC	WT11S	SPST	ON-NONE-OFF	IP67	IP60	Solder lug	50,000	15,000
	WT12S	SPDT	ON-NONE-ON	IP67	IP60	Solder lug	50,000	15,000
	WT13S	SPDT	ON-OFF-ON	IP67	IP60	Solder lug	50,000	15,000
	WT11T	SPST	ON-NONE-OFF	IP67	IP60	Screw lug	50,000	15,000
	WT12T	SPDT	ON-NONE-ON	IP67	IP60	Screw lug	50,000	15,000
	WT13T	SPDT	ON-OFF-ON	IP67	IP60	Screw lug	50,000	15,000
	WT11L	SPST	ON-NONE-OFF	IP67	IP67	Wire lead	50,000	15,000
	WT12L	SPDT	ON-NONE-ON	IP67	IP67	Wire lead	50,000	15,000
	WT13L	SPDT	ON-OFF-ON	IP67	IP67	Wire lead	50,000	15,000
Rocker Switches with Maximum Power Rating 15A @ 125/250 VAC	WR11AF	SPST	ON-NONE-OFF	IP67	IP60	Quick connect	30,000	15,000
	WR12AF	SPDT	ON-NONE-ON	IP67	IP60	Quick connect	30,000	15,000
	WR13AF	SPDT	ON-OFF-ON	IP67	IP60	Quick connect	30,000	10,000
	WR11AS	SPST	ON-NONE-OFF	IP67	IP60	Solder lug	30,000	15,000
	WR12AS	SPDT	ON-NONE-ON	IP67	IP60	Solder lug	30,000	15,000
	WR13AS	SPDT	ON-OFF-ON	IP67	IP60	Solder lug	30,000	10,000
	WR11AT	SPST	ON-NONE-OFF	IP67	IP60	Screw lug	30,000	15,000
	WR12AT	SPDT	ON-NONE-ON	IP67	IP60	Screw lug	30,000	15,000
	WR13AT	SPDT	ON-OFF-ON	IP67	IP60	Screw lug	30,000	10,000
	WR11AL	SPST	ON-NONE-OFF	IP67	IP67	Wire lead	30,000	15,000
	WR12AL	SPDT	ON-NONE-ON	IP67	IP67	Wire lead	30,000	15,000
	WR13AL	SPDT	ON-OFF-ON	IP67	IP67	Wire lead	30,000	10,000
Pushbutton Switches with Maximum Power Rating 6A @ 125 VAC	WB12S-DA	SPDT	ON-ON	IP67	IP60	Solder lug	30,000	15,000
	WB15S-DA	SPDT	ON-(ON)	IP67	IP60	Solder lug	30,000	15,000
	WB12T-DA	SPDT	ON-ON	IP67	IP60	Screw lug	30,000	15,000
	WB15T-DA	SPDT	ON-(ON)	IP67	IP60	Screw lug	30,000	15,000
	WB12L-DA	SPDT	ON-ON	IP67	IP67	Wire lead	30,000	15,000
	WB15L-DA	SPDT	ON-(ON)	IP67	IP67	Wire lead	30,000	15,000



High Capacity Toggle Switches

The S series encompasses many circuit configurations. Options include single-pole through four-pole models, in two and three positions. Maintained and momentary versions can be specified. Terminal options are varied and include solder lug, screw lug, and quick connect. Standard hardware is included with each switch device, with optional accessories including splashproof boots.



Features ▶

- 10A to 50A
- Locking lever and panel seal options
- Solder lug, screw, or quick connect terminals
- Available in single-pole, double-pole, three-pole, or four-pole
- UL and CSA certification
(see specific model number for details)

Benefits ▶

- Mechanical life: 30,000 operations minimum
- Electrical life: 10,000 operations minimum
- 12 mm bushing
- Inductive ratings
- Suitable for rugged applications

Applications ▶

- Transportation
- Food service industry
- HVAC
- Control panels
- Instrumentation

Product Specifications ▶

	Part Number	Pole and Throw	Circuit () = Momentary	Resistive Load			Inductive Load 125 VAC PF 0.6 (A)	Terminal
				125 VAC (A)	250 VAC (A)	30 VDC (A)		
Standard Toggle Switches	S302	SPDT	ON-NONE-ON	15	6	20	10	Solder lug
	S303	SPDT	ON-OFF-ON	15	6	20	10	Solder lug
	S305	SPDT	ON-NONE-(ON)	15	6	20	8	Solder lug
	S308	SPDT	(ON)-OFF-(ON)	15	6	20	8	Solder lug
	S309	SPDT	ON-OFF-(ON)	15	6	20	8	Solder lug
	S331	DPST	ON-NONE-OFF	25	25	25	10	Solder lug
	S332	DPDT	ON-NONE-ON	25	15	25	10	Solder lug
	S333	DPDT	ON-OFF-ON	25	15	25	10	Solder lug
	S335	DPDT	ON-NONE-(ON)	15	6	20	8	Solder lug
	S338	DPDT	(ON)-OFF-(ON)	15	6	20	8	Solder lug
	S339	DPDT	ON-OFF-(ON)	15	6	20	8	Solder lug
	S31	3PST	ON-NONE-OFF	25	9	20	10	Solder lug
	S32	3PDT	ON-NONE-ON	25	9	20	10	Solder lug
	S33	3PDT	ON-OFF-ON	25	9	20	10	Solder lug
	S41	4PST	ON-NONE-OFF	25	9	20	10	Solder lug
	S42	4PDT	ON-NONE-ON	25	9	20	10	Solder lug
	S43	4PDT	ON-OFF-ON	25	9	20	10	Solder lug
	S301T	SPST	ON-NONE-OFF	15	6	20	10	Screw lug
	S302T	SPDT	ON-NONE-ON	15	6	20	10	Screw lug
	S303T	SPDT	ON-OFF-ON	15	6	20	10	Screw lug
	S331T	DPST	ON-NONE-OFF	15	15	15	10	Screw lug
	S332T	DPDT	ON-NONE-ON	15	15	15	10	Screw lug
	S333T	DPDT	ON-OFF-ON	15	15	15	10	Screw lug
	S1F	SPST	ON-NONE-OFF	15	6	20	8	Quick connect
	S2F	SPDT	ON-NONE-ON	15	6	20	8	Quick connect
	S3F	SPDT	ON-OFF-ON	15	6	20	8	Quick connect
	S21F	DPST	ON-NONE-OFF	15	15	15	8	Quick connect
	S6F	DPDT	ON-NONE-ON	20	10	20	8	Quick connect
	S7F	DPDT	ON-OFF-ON	20	10	20	8	Quick connect
	S821	DPST	ON-NONE-OFF	30	30	30	30	Screw lug
S822	DPDT	ON-NONE-ON	30	30	30	30	Screw lug	
S823	DPDT	ON-OFF-ON	30	30	30	30	Screw lug	
S732	DPDT	ON-NONE-ON	50	30	50	25	Screw lug	
Locking Lever Toggle Switches	S1AL	SPST	ON-NONE-OFF	15	6	20	8	Solder lug
	S2AL	SPDT	ON-NONE-ON	15	6	20	8	Solder lug
	S3AL	SPDT	ON-OFF-ON	15	6	20	8	Solder lug
	S21AL	DPST	ON-NONE-OFF	15	15	15	8	Solder lug
	S6AL	DPDT	ON-NONE-ON	20	10	20	8	Solder lug
	S7AL	DPDT	ON-OFF-ON	20	10	20	8	Solder lug
Panel Sealed Toggle Switches	S1AW	SPST	ON-NONE-OFF	15	6	20	200W	Solder lug
	S2AW	SPDT	ON-NONE-ON	15	6	20	200W	Solder lug
	S3AW	SPDT	ON-OFF-ON	15	6	20	200W	Solder lug
	S5AW	SPDT	ON-NONE-(ON)	15	6	20	200W	Solder lug
	S8AW	SPDT	(ON)-OFF-(ON)	15	6	20	200W	Solder lug
	S21AW	DPST	ON-NONE-OFF	15	15	15	200W	Solder lug
	S6AW	DPDT	ON-NONE-ON	20	10	20	NA	Solder lug
	S7AW	DPDT	ON-OFF-ON	20	10	20	NA	Solder lug
S25AW	DPDT	ON-NONE-(ON)	15	6	20	NA	Solder lug	
S28AW	DPDT	(ON)-OFF-(ON)	15	6	20	NA	Solder lug	



High Capacity Rocker Switches

Snap-in-mounted JW series devices are designed to handle large inrush currents. JWM models are certified for TV-5 and JWL models for TV-8. This series has UL, CSA, and VDE approvals. Design engineers can configure SPST, SPDT, DPST, or DPDT circuits. All single-throw models can be ordered with international inscriptions for on/off specified in vertical or horizontal orientation. The SW series features a high 30A rating with small packaging.

Features ▶

- UL and CSA approval
- Internationally approved and TV-rated (JW series only)
- Standard and high capacity sizes
- Available in single-pole and double-pole
- Three-pole models available (SW series only)

Benefits ▶

- Inductive load rating (SW series)
- Designed to break light contact welds (JW series)
- 30A capacity (SW series)
- UL94V-0 outer case (JW series)
- Solder lug/quick connect terminals (JW series)

Applications ▶

- Generators
- Commercial refrigeration
- Computer power supplies
- Welding equipment
- Telecommunications

Product Specifications ▶

	Part Number	Pole and Throw	Circuit	Maximum Power Rating (VAC)			TV Rating	Panel Seal	Inscription Orientation	Mechanical Life (Operations Min.)	Electrical Life (Operations Min.)
				125 VAC (A)	250 VAC (A)	30 VDC (A)					
Internationally Approved TV-Rated Rocker Switches	JWM11RAA	SPST	ON-NONE-OFF	10A @ 125/250	TV-5	No	NONE	25,000	25,000		
	JWM11RA1A	SPST	ON-NONE-OFF	10A @ 125/250	TV-5	No	Horizontal O I	25,000	25,000		
	JWM11RA2A	SPST	ON-NONE-OFF	10A @ 125/250	TV-5	No	Vertical O –	25,000	25,000		
	JWM12RAA	SPDT	ON-NONE-ON	10A @ 125/250	TV-5	No	NONE	25,000	25,000		
	JWM21RAA	DPST	ON-NONE-OFF	10A @ 125/250	TV-5	No	NONE	25,000	25,000		
	JWM21RA1A	DPST	ON-NONE-OFF	10A @ 125/250	TV-5	No	Horizontal O I	25,000	25,000		
	JWM21RA2A	DPST	ON-NONE-OFF	10A @ 125/250	TV-5	No	Vertical O –	25,000	25,000		
	JWM22RAA	DPDT	ON-NONE-ON	10A @ 125/250	TV-5	No	NONE	25,000	25,000		
	JWMW11RAA	SPST	ON-NONE-OFF	10A @ 125/250	TV-5	Yes	NONE	25,000	25,000		
	JWMW11RA1A	SPST	ON-NONE-OFF	10A @ 125/250	TV-5	Yes	Vertical O –	25,000	25,000		
	JWMW11RA2A	SPST	ON-NONE-OFF	10A @ 125/250	TV-5	Yes	Horizontal O I	25,000	25,000		
	JWMW12RAA	SPDT	ON-NONE-ON	10A @ 125/250	TV-5	Yes	NONE	25,000	25,000		
	JWMW21RAA	DPST	ON-NONE-OFF	10A @ 125/250	TV-5	Yes	NONE	25,000	25,000		
	JWMW21RA1A	DPST	ON-NONE-OFF	10A @ 125/250	TV-5	Yes	Horizontal O I	25,000	25,000		
	JWMW21RA2A	DPST	ON-NONE-OFF	10A @ 125/250	TV-5	Yes	Vertical O –	25,000	25,000		
	JWMW22RAA	DPDT	ON-NONE-ON	10A @ 125/250	TV-5	Yes	NONE	25,000	25,000		
	JWL11RAA	SPST	ON-NONE-OFF	16A @ 125/250	TV-8	No	NONE	25,000	25,000		
	JWL11RA1A	SPST	ON-NONE-OFF	16A @ 125/250	TV-8	No	Horizontal O I	25,000	25,000		
JWL11RA2A	SPST	ON-NONE-OFF	16A @ 125/250	TV-8	No	Vertical O –	25,000	25,000			
JWL12RAA	SPDT	ON-NONE-ON	16A @ 125/250	TV-8	No	NONE	25,000	25,000			
JWL21RA1A	DPST	ON-NONE-OFF	16A @ 125/250	TV-8	No	Horizontal O I	25,000	25,000			
JWL21RA2A	DPST	ON-NONE-OFF	16A @ 125/250	TV-8	No	Vertical O –	25,000	25,000			
JWL22RAA	DPDT	ON-NONE-ON	16A @ 125/250	TV-8	No	NONE	25,000	25,000			
Medium/High Capacity Rocker Switches	Part Number	Pole and Throw	Circuit () = Momentary	Resistive			Inductive	Mechanical Life (Operations Min.)	Electrical Life (Operations Min.)		
				125 VAC (A)	250 VAC (A)	30 VDC (A)	125 VAC PF 0.6 (A)				
	SW3001A	SPST	ON-NONE-OFF	15	6	15	10	30,000	10,000		
	SW3002A	SPDT	ON-NONE-ON	15	6	15	10	30,000	10,000		
	SW3003A	SPDT	ON-OFF-ON	15	6	15	10	30,000	10,000		
	SW3006A	DPDT	ON-NONE-ON	20	10	20	10	30,000	10,000		
	SW3007A	DPDT	ON-OFF-ON	15	6	15	10	30,000	10,000		
	SW3008A	DPDT	(ON)-OFF-(ON)	15	6	15	10	30,000	10,000		
	SW3821	DPST	ON-NONE-OFF	30	30	30	30	50,000	25,000		
	SW3822	DPDT	ON-NONE-ON	30	30	30	30	50,000	25,000		
	SW3823	DPDT	ON-OFF-ON	30	30	30	30	50,000	25,000		
	SW3831	3PST	ON-NONE-OFF	30	30	30	30	50,000	25,000		
	SW3832	3PDT	ON-NONE-ON	30	30	30	30	50,000	25,000		
	SW3833	3PDT	ON-OFF-ON	30	30	30	30	50,000	25,000		



Panel Seal Illuminated Pushbutton Switches

NKK's panel seal illuminated and nonilluminated pushbutton switches are rated for IP65 of IEC60529 standards (similar to NEMA 4 and 13). The alternate action version features a latch-down mechanism that clearly indicates status, and audible and tactile feedback that guarantee smooth, responsive operation. Accessories, including splash covers and protective guards, are available.



Features ▶

- Panel seal meets IP65 of IEC60529
- Snap-action mechanism
- Momentary and alternate action
- Front panel relamping
- Bushing-mount

Benefits ▶

- Isolated LED circuits
- Visible latch-down position
- Bright LEDs
- Non-illuminated models available
- Long electrical life: 100,000 operations minimum

Applications ▶

- Network equipment
- Instrumentation
- Amusement park systems
- Medical diagnostic equipment
- Security systems

Product Specifications ▶

	Part Number	Pole and Throw	Circuit () = Momentary	LED/Diffuser Color	Mechanical Life (Operations Min.)
22.0 mm Panel Cutout Pushbutton Switches	LB15WKW01-5C-JC	SPDT	ON - (ON)	Red	1,000,000
	LB15WKW01-5D-JD	SPDT	ON - (ON)	Amber	1,000,000
	LB15WKW01-5F-JF	SPDT	ON - (ON)	Green	1,000,000
	LB16WKW01-5C-JC	SPDT	ON - ON	Red	200,000
	LB16WKW01-5D-JD	SPDT	ON - ON	Amber	200,000
	LB16WKW01-5F-JF	SPDT	ON - ON	Green	200,000
	LB25WKW01-5C-JC	DPDT	ON - (ON)	Red	1,000,000
	LB25WKW01-5D-JD	DPDT	ON - (ON)	Amber	1,000,000
	LB25WKW01-5F-JF	DPDT	ON - (ON)	Green	1,000,000
	LB26WKW01-5C-JC	DPDT	ON - ON	Red	200,000
	LB26WKW01-5D-JD	DPDT	ON - ON	Amber	200,000
	LB26WKW01-5F-JF	DPDT	ON - ON	Green	200,000
16.0 mm Panel Cutout Pushbutton Switches	YB15WSKW01-5C-JC	SPDT	ON - (ON)	Red	1,000,000
	YB15WSKW01-5D-JD	SPDT	ON - (ON)	Amber	1,000,000
	YB15WSKW01-5F-JF	SPDT	ON - (ON)	Green	1,000,000
	YB16WSKW01-5C-JC	SPDT	ON - ON	Red	200,000
	YB16WSKW01-5D-JD	SPDT	ON - ON	Amber	200,000
	YB16WSKW01-5F-JF	SPDT	ON - ON	Green	200,000
	YB25WSKW01-5C-JC	DPDT	ON - (ON)	Red	1,000,000
	YB25WSKW01-5D-JD	DPDT	ON - (ON)	Amber	1,000,000
	YB25WSKW01-5F-JF	DPDT	ON - (ON)	Green	1,000,000
	YB26WSKW01-5C-JC	DPDT	ON - ON	Red	200,000
	YB26WSKW01-5D-JD	DPDT	ON - ON	Amber	200,000
	YB26WSKW01-5F-JF	DPDT	ON - ON	Green	200,000



16 mm Illuminated Pushbutton Switches

These sub-assembled pushbutton switches have a modular construction—pushbutton, case, lamp, and switch. The A16 is a panel-mounted pushbutton switch with a short mounting depth of less than 28.5 mm below the panel.

Features ▶

- Termination of 110" solder terminals
- Contact rating of 3A @ 30 VDC/250 VAC
- Minimum load of 1 mA @ 5 VDC
- 16 mm illuminated and non-illuminated types
- Available in square, rectangular, and round versions

Benefits ▶

- 2-piece snap-together construction with latching lever for quick and easy installation and removal
- Short mounting depth—less than 28.5 mm below panel
- Terminal layout simplifies common wiring
- Knob and key-type selector switches, emergency-stop pushbuttons, pilot lights, and buzzers
- IP40 and IP65 versions

Applications ▶

- Control panels
- Contact signal to start an application
- Emergency stop button
- Indicator
- Locking out a particular application

Product Specifications ▶

Part Number	Cap Color	Actuator Type	Switch Unit
A165L-TRM-24D-2	Red	Round extended	DPDT momentary
A165L-TYM-24D-2	Yellow	Round extended	DPDT momentary
A165L-TGM-24D-2	Green	Round extended	DPDT momentary
A165L-TWM-24D-2	White	Round extended	DPDT momentary
A165L-TRA-24D-2	Red	Round extended	DPDT alternate
A165L-TYA-24D-2	Yellow	Round extended	DPDT alternate
A165L-TGA-24D-2	Green	Round extended	DPDT alternate
A165L-TWA-24D-2	White	Round extended	DPDT alternate
A165L-ARM-24D-2	Red	Square, guarded 2 sides	DPDT momentary
A165L-AYM-24D-2	Yellow	Square, guarded 2 sides	DPDT momentary
A165L-AGM-24D-2	Green	Square, guarded 2 sides	DPDT momentary
A165L-AWM-24D-2	White	Square, guarded 2 sides	DPDT momentary
A165L-ARA-24D-2	Red	Square, guarded 2 sides	DPDT alternate
A165L-AYA-24D-2	Yellow	Square, guarded 2 sides	DPDT alternate
A165L-AGA-24D-2	Green	Square, guarded 2 sides	DPDT alternate
A165L-AWA-24D-2	White	Square, guarded 2 sides	DPDT alternate
A165L-JRM-24D-2	Red	Rectangular, guarded 2 sides	DPDT momentary
A165L-JYM-24D-2	Yellow	Rectangular, guarded 2 sides	DPDT momentary
A165L-JGM-24D-2	Green	Rectangular, guarded 2 sides	DPDT momentary
A165L-JWM-24D-2	White	Rectangular, guarded 2 sides	DPDT momentary
A165L-JRA-24D-2	Red	Rectangular, guarded 2 sides	DPDT alternate
A165L-JYA-24D-2	Yellow	Rectangular, guarded 2 sides	DPDT alternate
A165L-JGA-24D-2	Green	Rectangular, guarded 2 sides	DPDT alternate
A165L-JWA-24D-2	White	Rectangular, guarded 2 sides	DPDT alternate



Optoelectronic Sensors/Switches

OPTEK manufactures a wide variety of optoelectronic sensor assemblies that satisfy a broad range of industrial applications for sensing motion, color, and liquids. Our products are also well-suited for applications such as safety/security. OPTEK products are manufactured with the level of quality required to meet the needs of industrial applications.



Features ▶

- Reflective switches
- Flag switches
- Slotted switches

Benefits ▶

- Non-contact identification
- Long life: 10+ years
- Low power required

Applications ▶

- Security/safety
- Target identification
- Power supply isolation
- Encoding linear/rotary

Product Specifications ▶

	Part Number	LED Peak Wavelength (nm)	Sensor	Reflection Distance Typical	$I_{C(ON)}$ (mA) Minimum	I_F (mA) Typical/Maximum	V_{CE} (Volts) Min./Max.	Lead Length/Wire Type	
	Reflective Switch	OPB720A-06Z	850	Open-collector	6"/152 mm	16	Preset	10/30	39"/28 AWG wire
OPB720A-12Z		12"/305 mm							
OPB720A-V30Z		30"/762 mm							
OPB715Z		890	Totem-pole	0.050"/12.7 mm	30	Preset	4.75/5.25	18"/26 AWG wire	
OPB716Z			Open-collector						
OPB717Z			Inverted totem-pole						
OPB718Z			Inverted open-collector						
OPB741		890	Transistor	0.150"/3.81 mm	0.05	20/40	30	0.150"	
OPB741W24Z								24"/26 AWG wire	
OPB770TZ		890	Totem-pole	0.080"-0.220"/ 2.032 mm-5.588 mm	10	25/50	4.75/5.25	12"/26 AWG wire	
OPB771TZ			Open-collector						
OPB772TZ			Inverted totem-pole						
OPB773TZ			Inverted open-collector						
OPB732		850	Transistor	3.0"/76.2 mm	.25	30/50	30	0.150"	
OPB732W								39"/28AWG wire	
OPB725	Open-collector		13"-23"/ 330.2 mm-584.2 mm	16	Preset	10/30	48"/28AWG wire		
Flag Switch	Part Number	LED Peak Wavelength (nm)	Sensor	Flag Travel Degrees Maximum	I_{CC1} / I_{CC2} (mA) Maximum	I_F (mA) Typical/Maximum	V_{CC} (Volts) Minimum/Maximum	Lead Length/Spacing (inches)	
	OPB685	890	10K pull-up	51	12/12	10/50	4.5/16.0	0.100/0.275	
	OPB686		Open-collector						
	OPB687		Inverted 10K pull-up						
	OPB688		Inverted open-collector						
Slotted Switch	Part Number	LED Peak Wavelength (nm)	Sensor	Slot Width/Depth (inches)	$I_{C(ON)}$ (mA) Minimum/Maximum	I_F (mA) Typical/Maximum	V_{CE} (volts) Maximum	Aperture Size Emitter/Sensor (inches)	Lead Length/Spacing
	OPB800W51Z	890	Transistor	0.375/0.345	0.625/NA	20/50	30	0.05/0.01	24"/26 AWG wire
	OPB800W55Z				1.25/NA	10/50		0.05/0.05	
	OPB801W55Z				2.25/NA	20/50			
	OPB900L55	890	Totem-pole	0.375/0.345	15	20/50	4.5/16.0	0.05/0.05	0.425"/0.570"
	OPB901L55		Open-collector						
	OPB902L55		Inv totem-pole						
	OPB903L55		Inv open-collector						
	OPB819Z	890	Transistor	1.26/1.38	.5/12.0	40/50	30	None	24"/26 AWG wire

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Power rocker switches

Power Rocker Switches

The power rocker switches are a full line of snap-in, panel-mounted switches available in current ratings from 7A to 20A. These switches are available in seven different panel cut-out sizes, offering the customer a wide variety of size options. The new 20A PRC series switches are rated IP66, providing a dust-tight and water-resistant seal.

Features ▶

- Available in SPST, SPDT, DPST, and DPDT functions
- Solder lug, screw, or quick connect terminals
- Dual-color rockers and illuminated options available
- Waterproof cover available for PRA-size switches
- UL-recognized to U.S. and Canadian standards

Benefits ▶

- Easy snap-in mounting
- Offers a cost-competitive solution
- Custom markings available
- RoHS compliant

Applications ▶

- HVAC units
- Industrial air cleaners
- Packaging equipment
- Vending machines
- Food processing equipment

Product Specifications ▶

Part Number	Description
2-1571076-0	PRASA1-16F-BB0HW
1571113-4	PRDD3-16F-BB000
1571103-1	PRDDA1-16F-BB000
1571076-9	PRASA1-16F-BB000
1571092-1	PRBSB1-16F-BR000
1571091-1	PRBSA1-16F-BB000
1571091-2	PRBSA1-16F-BB0BW
1571079-4	PRASD1-16F-BB000
1571091-9	PRBSA1-16F-BB0HW
1-1571076-3	PRASA1-16L-BB0BW
1-1571076-0	PRASA1-16F-BB0BW
1571095-2	PRCSA1-20F-BB0BW
1571099-2	PRCDD1-20F-BB0DW
1571100-2	PRCSD1-20F-BB0DW
1571102-2	PRCDA1-20F-BB0BW



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