



MICRO SWITCH™ LS
General Purpose Limit Switches
LS Series



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General Purpose Limit Switches

The Honeywell MICRO SWITCH™ Compact LS Limit Switch Series offers products that have a long record of successful performance in a diverse range of industrial applications. Under severe conditions, its durable and dependable design provides longevity, precision, and consistent repeatability over millions of operations.

The compact size and adjustable features propel the LS Series to flourish in a variety of settings under space constraint without sacrificing reliability. Its construction is oil-tight, water-tight and dust tight, and includes die-cast housing, heads and actuators. An assortment of heads and actuators provides a solution for a variety of applications.

What makes our switches better?

- Small size and universal mounting footprint may allow for use in constricted spaces
- IP67 and NEMA 1, 3, 4, 6 and 13 ratings available provide a dependable solution in most demanding environmental conditions
- Rugged die-cast metal construction with a wide variety of heads and actuators provides long life across numerous applications
- MICRO SWITCH™ legacy and expertise - over 55 years of engineering excellence and experience with industrial limit switches

***Rugged, metal housing
packaged for industrial indoor
and outdoor applications***



QUALITY, RELIABLE
RUGGED, GLOBAL

Features and Benefits

ENHANCED PERFORMANCE COMPACT DESIGN

Along with industry standard mounting dimensions, the LS Series compact design allows installation in applications under space constraint while still providing reliable switching performance

TWO CIRCUIT DOUBLE BREAK CONTACTS

With an AC15, A300 or 10 A electrical rating, the LS Series provides dependable and consistent switching, giving the end users control of two circuits in one switch

One switch controls two circuits!

ACTUATORS FOR YOUR APPLICATION

With many actuators available such as side rotary, plunger, wobble stick and roller plunger, the LS Series is adaptable and has the ability to be applied in a variety of applications

SEALED CONSTRUCTION

In demanding environmental conditions, IP67 or NEMA 1, 3, 4, 6, and 13 sealing protects against oil, dust and water making the LS Series a dependable solution in a variety of conditions for both indoor and outdoor applications

Potential Applications



MACHINE TOOL EQUIPMENT

Part presence, machine slide/table position, panel and door presence

MATERIAL HANDLING

Sensing in overhead doors, door interlock, dock locks, conveyance, storage retrieval, carousels, conveyors, and assembly lines

VALVE ACTUATION

Position sensing of electric valves for waste water treatment plants, power plants, refineries, and pipelines



FOOD AND BEVERAGE

Sensing during bottling, canning, and packaging

SPECIAL MACHINERY

Assembly, packaging and testing applications

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MICRO SWITCH™ LS SERIES PRODUCT NOMENCLATURE

Switch body							
Compact SPDT	SPDT Plug-in less base	Switch style	Product family	Actuator code	Actuator description	Modifications (may be applied to most configurations)	
1	201	side rotary (momentary) CW and CCW actuation. Field adjustable for CW and CCW	LS	1	standard with 38,1 mm fixed length lever with steel roller	(blank) 0.5-14 NPT conduit	
				19	low pretravel with 38,1 mm fixed length lever with steel roller		
				6	low operating torque with 38,1 mm fixed length lever with steel roller		
				131	low pretravel, low operating torque with 38,1 mm fixed length lever with steel roller		
				3	standard with adjustable length lever, 38 mm to 89 mm with nylon roller		
				10	standard with adjustable 127 mm aluminum rod		
				2	standard, no lever		
				9	low pretravel with no lever		
				23	low operating torque with no lever		
2	202	top pin plunger	LS	1	standard	-L UL/CSA certified with 0.5-14 NPT conduit	
	n/a	top pin plunger		111	plunger boot seal		
3	203	side roller plunger	LS	1	standard	-4C CE with 20 mm conduit	
4	204	side pin plunger	LS	1	standard		
5	205	top roller plunger	LS	1	standard	-4PG CE with PG 13,5 mm conduit	
	n/a	top roller plunger		8	plunger boot seal		
6	206	two position side rotary (maintained)	LS	1	standard with 38,1 mm fixed length fork lever with roller		
				2	no lever		
7	n/a	side rotary enclosure mount	LS	1	standard with 38,1 mm fixed length lever with steel roller		
8	208	wobble actuator	LS	1	steel coil spring, 141 mm		
	208	wobble actuator		3	aluminum rod, 141 mm		
	208	wobble actuator		125	cat whisker, 191 mm		
	208	wobble actuator		152	stainless steel coil spring, 141 mm		

Not all combinations are available. Please contact your Honeywell provider/representative for assistance.

MICRO SWITCH™ General Purpose Limit Switches

Table 1. Specifications

Characteristic	North America	EMEA (Europe)
Product type	Honeywell general purpose LS limit switch, compact and plug-in	Honeywell general purpose LS-4 limit switch, compact and plug-in
Acutators	side rotary, side rotary (maintained) top pin plunger, top roller plunger, wobble coil spring, wobble aluminum rod, wobble cat whisker, wobble sst coil spring	
Circuitry	single pole double throw (SPDT) double break,	single pole double throw (SPDT) double break
Electrical	10 A (see Table 2)	AC 15, A300; DC 13, P300
Housing material	compact: epoxy coated zinc die cast plug-in: epoxy coated aluminum die cast	epoxy coated aluminum die cast
Conduit	0.5 – 14 NPT	20 mm or PG13,5
Housing seal rating	NEMA 1,3,4, 6 and 13	IP67, NEMA 1,4 and 13
Operating temperature	standard: -29 °C to 71 °C [-20 °F to 160 °F] high temp.: -29 °C to 120 °C [-20 °F to 248 °F]	standard: -30 °C to 70 °C [-22 °F to 158 °F] high temp.: -30 °C to 120 °C [-22 °F to 248 °F]
Agency certifications	Compact with -L suffix UL file 12252, CSA file 57325	CE, EN60947-5-41, IEC60947-5-4

Table 2. Electrical Ratings

Electrical Code	Electrical Ratings					
A	10 A, 120, 240 or 480 Vac; 1/3 hp 120 Vac; 3/4 hp 240 Vac; 0.8 amp, 115 Vdc; 0.4 amp, 230 Vdc; 0.1 amp, 550 Vdc, Pilot Duty, 600 Vac max.					
B	10 A, 120, 240 or 480 Vac; 1/4 hp 120 Vac; 1/2 hp 240 Vac; Pilot Duty, 600 Vac max.					
C	10 A, 1/3 hp 120 Vac					
D	10 A, 120, 240 or 480 Vac; 1/4 hp 120 Vac; 1/2 hp 240 Vac; 0.8 amp, 115 Vdc; 0.4 amp, 230 Vdc; 0.1 amp, 550 Vdc, Pilot Duty, 600 Vac max.					
E	10 A, 120, 240 or 480 Vac; 1/3 hp 120 Vac; 3/4 hp 240 Vac; Pilot Duty, 600 Vac max.					
F	5 A, 6 V; 1 A, 24 V; 0.4 A, 220 V					
G	UL & CSA; 10 A, 125, 250 or 480 Vac; 1/3 hp 125 Vac; 3/4 hp 250 Vac; 0.8 amp, 115 Vdc; 0.4 amp, 230 Vdc					
H	UL & CSA; 10 A, 125, 250 or 480 Vac; 1/4 hp 125 Vac; 1/2 hp 250 Vac; 0.8 amp, 115 Vdc; 0.4 amp, 230 Vdc					
J	EN60947-5-1, IEC 60947-5-1					
	Designation & Category	Thermal Current, It(Amps)	Rated Operational Voltage, Ue	Rated Operational Amps, Ie	VA rating Make	VA rating Break
	ac					
	AC15, A300	10	120	6	7200	720
	AC15, A300	10	240	3	7200	720
	dc					
	DC13, P300	5	125	1.1	138	138
DC13, P300	5	250	0.55	138	138	

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MICRO SWITCH™ LS SERIES ORDER GUIDE/RECOMMENDED LISTINGS (FOR NORTH AMERICA)

For listings not shown, contact your Honeywell representative.

Table 3. Side Rotary (Momentary), Standard Roller Lever

	Compact, SPDT w 0.5-14 NPT conduit	Plug-in less base*	Description	Electrical Rating (Table 2)
	1LS1	201LS1	side rotary w/ 38,1mm [1.5 in] fixed lever, steel roller	A
	1LS1-L	–	side rotary w/ 38,1mm [1.5 in] fixed lever, steel roller	G
	1LS2	–	side rotary, no lever	A
	1LS2-L	–	side rotary, no lever	G
	1LS243	201LS242	side rotary w/ 38,1mm [1.5 in] fixed lever, steel roller	A
	1LS6	201LS6	side rotary w/ 38,1 mm [1.5 in] fixed lever, steel roller	A
	1LS6-L	–	side rotary w/ 38,1 mm [1.5 in] fixed lever, steel roller	G
	1LS23	201LS23	side rotary, no lever	A
	1LS501	201LS501	side rotary w/ 38,1mm [1.5 in] fixed lever, steel roller	C
	1LS19	201LS19	side rotary w/ 38,1mm [1.5 in] fixed lever, steel roller	B
	1LS9	201SL9	side rotary, no lever	B
	1LS131	–	side rotary w/ 38,1 mm [1.5 in] fixed lever, steel roller	B
	1LS56	201LS56	side rotary, no lever	B

¹Contact closed ■; Contact open □. *Requires an 18PA1 Terminal Block (base receptacle) which must be ordered separately. 18PA1 terminal block has 0.5-14 NPT conduit threads.

Table 4. Side Rotary (Maintained), Standard Fork Roller Lever

	Compact, SPDT w 0.5-14 NPT conduit	Plug-in less base*	Description	Electrical Rating (Table 2)
	6LS1	206LS1	side rotary maintained w/ 38,1mm [1.5 in] fork lever, steel rollers, opposite side	A
	6LS2	206LS2	side rotary maintained, no lever	A
	6LS2-L	–	side rotary maintained, no lever	G
	6LS3	–	side rotary maintained w/ 38,1mm [1.5 in] fork lever, nylon rollers, same side	A

¹Contact closed ■; Contact open □. *Requires an 18PA1 Terminal Block (base receptacle) which must be ordered separately. 18PA1 terminal block has 0.5-14 NPT conduit threads.

MICRO SWITCH™ General Purpose Limit Switches

- O.T. • Operating torque
- O.F. • Operating force
- R.P. • Release point
- P.T. • Pretravel
- O.T. • Overtravel
- D.T. • Differential travel

Operating Torque or Force	Bar Chart ¹	Operate Point	Pretravel (max.)	Overtravel (min.)	Differential Travel (max.)	Notes
0,51 Nm [4.5 in-lb]		–	20°	30°	12°	–
0,51 Nm [4.5 in-lb]		–	20°	30°	12°	UL & CSA
0,51 Nm [4.5 in-lb]		–	20°	30°	12°	–
0,51 Nm [4.5 in-lb]		–	20°	30°	12°	UL & CSA
0,51 Nm [4.5 in-lb]		–	20°	30°	12°	high-temp. 120 °C [248 °F]
0,19 Nm [1.7 in-lb]		–	20°	30°	12°	low torque
0,19 Nm [1.7 in-lb]		–	20°	30°	12°	low torque, UL & CSA
0,19 Nm [1.7 in-lb]		–	20°	30°	12°	low torque
0,51 Nm [4.5 in-lb]		–	20°	30°	12°	indicator for 120 Vac only
0,51 Nm [4.5 in-lb]			–	5°	30°	4°
0,51 Nm [4.5 in-lb]	–		5°	30°	4°	low pretravel
0,19 Nm [1.7 in-lb]	–		5°	30°	4°	low pretravel and low torque
0,19 Nm [1.7 in-lb]	–		5°	30°	4°	low pretravel and low torque

Operating Torque or Force	Bar Chart ¹	Operate Point	Pretravel (max.)	Total travel (nom.)	Differential Travel (max.)	Notes
0,34 Nm [3 in-lb]		–	55°	90°	20°	
0,34 Nm [3 in-lb]		–	55°	90°	20°	
0,34 Nm [3 in-lb]		–	55°	90°	20°	UL & CSA
0,34 Nm [3 in-lb]		–	55°	90°	20°	

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For listings not shown, contact your Honeywell representative.

Table 5. Side Rotary, Adjustable Roller Lever



	Compact, SPDT w 0.5-14 NPT conduit	Plug-in less base*	Description	Electrical Rating (Table 2)
	1LS3	201LS3	side rotary w/ 38,1 mm to 88,9mm [1.5 in to 3.5 in] adjustable lever, nylon roller	A
	1LS3-L	–	side rotary w/ 38,1 mm to 88,9mm [1.5 in to 3.5 in] adjustable lever, nylon roller	G
	1LS58	–	side rotary w/ 38,1 mm to 88,9mm [1.5 in to 3.5 in] adjustable lever, nylon roller	B
	1LS59	–	side rotary w/ 38,1 mm to 88,9mm [1.5 in to 3.5 in] adjustable lever, nylon roller	B

¹Contact closed ■; Contact open □. *Requires an 18PA1 Terminal Block (base receptacle) which must be ordered separately. 18PA1 terminal block has 0.5-14 NPT conduit threads.

Table 6. Side Rotary, Adjustable Rod Lever



	Compact, SPDT w 0.5-14 NPT conduit	Plug-in less base*	Description	Electrical Rating (Table 2)
	1LS10	201LS10	side rotary w/ 140 mm [5.5 in] max. adjustable aluminum rod	A
	1LS10-L	–	side rotary w/ 140 mm [5.5 in] max. adjustable aluminum rod	G
	1LS47	201LS47	side rotary w/ 140 mm [5.5 in] max. adjustable aluminum rod	B
	1LS53	201LS51	side rotary w/ 140 mm [5.5 in] max. adjustable aluminum rod	B

¹Contact closed ■; Contact open □. *Requires an 18PA1 Terminal Block (base receptacle) which must be ordered separately. 18PA1 terminal block has 0.5-14 NPT conduit threads.

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- O.T. • Operating torque
- O.F. • Operating force
- R.P. • Release point
- P.T. • Pretravel
- O.T. • Overtravel
- D.T. • Differential travel

Operating Torque or Force	Bar Chart ¹	Operate Point	Pretravel (max.)	Overtravel (min.)	Differential Travel (max.)	Notes
0,51 Nm [4.5 in-lb]		-	20°	30°	12°	-
0,51 Nm [4.5 in-lb]		-	20°	30°	12°	UL & CSA
0,51 Nm [4.5 in-lb]		-	5°	30°	4°	low pretravel
0,19 Nm [1.7 in-lb]		-	5°	30°	4°	low pretravel and low torque

Operating Torque or Force	Bar Chart ¹	Operate Point	Pretravel (max.)	Overtravel (min.)	Differential Travel (max.)	Notes
0,19 Nm [1.7 in-lb]		-	20°	30°	12°	-
0,19 Nm [1.7 in-lb]		-	20°	30°	12°	UL & CSA
0,19 Nm [1.7 in-lb]		-	5°	30°	4°	low pretravel
0,11 Nm [1.0 in-lb]		-	5°	30°	4°	low pretravel and low torque

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For listings not shown, contact your Honeywell representative.

Table 7. Top Pin Plunger

	Compact, SPDT w 0.5-14 NPT conduit	Plug-in less base*	Description	Electrical Rating (Table 2)	Operating Torque or Force
	2LS1	202LS1	Top pin plunger (hardened SST)	A	31,1 N [7.0 lb]
	2LS1-L	-	Top pin plunger (hardened SST)	G	31,1 N [7.0 lb]
	2LS111	202LS111	Top pin plunger (hardened SST) with boot seal	E	10,0 N [2.2 lb]

†Contact closed ■; Contact open □. NOTE: Bar chart measurements are in millimeters.

*Requires an 18PA1 Terminal Block (base receptacle) which must be ordered separately. 18PA1 terminal block has 0.5-14 NPT conduit threads.


Table 8. Top Roller Plunger

	Compact, SPDT w 0.5-14 NPT conduit	Plug-in less base*	Description	Electrical Rating (Table 2)	Operating Torque or Force
	5LS1	205LS1	Top roller plunger (hardened steel roller)	A	31,1 N [7.0 lb]
	5LS1-L	-	Top roller plunger (hardened steel roller)	G	31,1 N [7.0 lb]
	5LS8	-	Top roller plunger (hardened steel roller) with boot seal		15,57 N [3.5 lb]

†Contact closed ■; Contact open □. NOTE: Bar chart measurements are in millimeters.

*Requires an 18PA1 Terminal Block (base receptacle) which must be ordered separately. 18PA1 terminal block has 0.5-14 NPT conduit threads.


Table 9. Side Pin Plunger

	Compact, SPDT w 0.5-14 NPT conduit	Plug-in less base*	Description	Electrical Rating (Table 2)	Operating Torque or Force
	4LS1	204LS1	Side pin plunger (SST)	A	40,0 N [9.0 lb]

†Contact closed ■; Contact open □. NOTE: Bar chart measurements are in millimeters.

*Requires an 18PA1 Terminal Block (base receptacle) which must be ordered separately. 18PA1 terminal block has 0.5-14 NPT conduit threads.

Table 10. Side Roller Plunger

	Compact, SPDT w 0.5-14 NPT conduit	Plug-in less base*	Description	Electrical Rating (Table 2)	Operating Torque or Force
	3LS1	203LS1	Side roller plunger (hardened steel roller)	A	40,0 N [9.0 lb]