

MICRO SWITCH™ HDLS Series Heavy-Duty Limit Switches

Honeywell Sensing and Control's MICRO SWITCH™ heavy-duty limit switches' modular construction allows for a wide variety of actuator styles, operating heads, and electrical circuitry options. The plug-in versions greatly reduce downtime on production lines with high actuation rates as replacement of the switch is accomplished in seconds. The base receptacle contains all the wiring and conduit connection while the switching component with operating head easily assembles to the base and is attached with two screws.

What makes our switches better?

- Industry-leading breadth-of-product offering: HDLS standard, HDLS harsh-duty epoxy sealed, or the HDLS stainless steel
- NEMA 1, 3, 4, 4X, 6, 6P, 12, 13 and IP65/66/67 environmental sealing for demanding applications
- UL, CSA, CE, and CCC approvals for global use
- Sintered bronze bearing on 303 stainless steel operating shaft for enhanced mechanical life (50 million actuation cycles) and operational reliability
- All-metal drive train for consistent operating characteristics, even at high temperature. Lasts longer (without need for frequent adjustment) than drive trains with plastic parts
- Exclusive teller tab ensures proper torque. When it cannot be moved, the lever is tight enough to prevent slippage


















RELIABILITY • DURABILITY
MODULAR • GLOBAL

MICRO SWITCH™ Heavy-Duty Limit Switches

Table 2. Common levers for use with MICRO SWITCH™ HDLS Rotary Switches






Lever for use with side or top rotary actuated switches are available in a wide choice of sizes and materials. The most common listings are shown below. Rollers may be on either side of the lever to best match the external actuating mechanism.








									
LSZ51A&C fixed rotary lever, nylon roller, front/ back	LSZ51B&D fixed rotary lever, steel roller, front/ back	LSZ59A,LSZ59B, LSZ59C,LSZ59D short fixed lever, front/back		LSZ55A,LSZ55B, LSZ55C,LSZ55D offset lever, front/back	LSZ60 one-way roller lever	LSZ53A, LSZ53B, LSZ53C, LSZ53D yoke lever, nylon and steel rollers, front/back placement	LSZ54R spring wire 305 mm [12 in]	LSZ69CA spoke lever - 152 mm [6 in]	
									
LSZ52A, LSZ52B, LSZ52C, LSZ52D adj. lever, nylon/ steel, front/back	LSZ52J adjustable lever, nylon roller Ø 25,4 mm [Ø 1 in]	LSZ52K adjustable lever, nylon roller Ø 38,1 mm [Ø 1.5 in]	LSZ54M aluminum rod Ø 140 mm [Ø 5.5 in]	LSZ61 loop 152 mm [6 in]	LSZ67AA* Plastic conveyor roller	LSZ68 rod w/ spring 305 mm [12 in]	LSZ54N stainless steel rod 330 mm [13 in]		

* May require orientation of switch and lever to enable gravity to help restore free position of switch.

HDLS Series

Table 3. HDLS SERIES ACTUATOR CODE TABLE (see previous page)

Catalog Listing	Material	Rod/Roller Dia. mm [in]	Rod/Roller Width mm [in]	Roller Mounting	
Fixed 38,1 mm [1.5 in] radius					
	–	Rollerless	n/a	n/a	
LSZ51A	Nylon	19 [0.75]	6,35 [0.25]	Front	
LSZ51B	Steel	19 [0.75]	6,35 [0.25]	Front	
LSZ51C	Nylon	19 [0.75]	6,35 [0.25]	Back	
LSZ51D	Steel	19 [0.75]	6,35 [0.25]	Back	
LSZ51F	Nylon	25,4 [1.0]	12,7 [0.50]	Front	
LSZ51G	Nylon	38,1 [1.5]	6,35 [0.25]	Front	
LSZ51J	Nylon	25,4 [1.0]	12,7 [0.50]	Back	
LSZ51L	Ball bearing	19 [0.75]	6,35 [0.25]	Back	
LSZ51M	Nylon	19 [0.75]	31,7 [1.25]	Back	
LSZ51N	Steel	19 [0.75]	31,7 [1.25]	Front	
LSZ51P	Nylon	19 [0.75]	12,7 [0.50]	Front	
Adjustable 38,1 mm to 89,0 mm [1.5 in to 3.5 in] radius					
	–	Rollerless	n/a	n/a	
LSZ52A	Nylon	19 [0.75]	6,35 [0.25]	Back	
LSZ52B	Steel	19 [0.75]	6,35 [0.25]	Back	
LSZ52C	Nylon	19 [0.75]	6,35 [0.25]	Front	
LSZ52D	Steel	19 [0.75]	6,35 [0.25]	Front	
LSZ52E	Nylon	19 [0.75]	33,0 [1.30]	Front	
LSZ52J	Nylon	25,4 [1.0]	12,7 [0.50]	Front	
LSZ52K	Nylon	38,1 [1.5]	6,35 [0.25]	Front	
LSZ52L	Ball bearing	19 [0.75]	6,35 [0.25]	Front	
LSZ52M	Nylon	50,8 [2.0]	6,35 [0.25]	Front	
LSZ52N	Nylon	19 [0.75]	12,7 [0.50]	Front	
Yoke – 38,1 mm [1.5 in] radius					
	LSZ53A	Nylon	19 [0.75]	6,35 [0.25]	Front/Back
	LSZ53B	Steel	19 [0.75]	6,35 [0.25]	Front/Back
	LSZ53D	Steel	19 [0.75]	6,35 [0.25]	Front/Front
	LSZ53E	Nylon	19 [0.75]	6,35 [0.25]	Back/Front
	LSZ53M	Nylon	19 [0.75]	31,7 [1.25]	Back/Front
	LSZ53P	Steel	19 [0.75]	6,35 [0.25]	Back/Back
	LSZ53S	Nylon	19 [0.75]	6,35 [0.25]	Back/Back
Rod					
	–	Hub only	n/a	n/a	
	LSZ54M	Alum, 140 mm [5.5 in]	Ø 3.2 [Ø 0.125]	n/a	n/a
	LSZ54N	Stainless, 330 mm [13 in]	Ø 3.2 [Ø 0.125]	n/a	n/a
	LSZ54R	SST spring wire, 305 mm [12 in]	Ø 1.9 [Ø 0.075]	n/a	n/a
	LSZ54V	Flex cable (tin plated steel), 122 mm [4.8 in]	Ø 4.8 [Ø 0.19]	n/a	n/a
	LSZ54P	Plastic rod, 305 mm [12 in]	Ø 6,85 [Ø 0.27]	n/a	n/a
	LSZ54W	Plastic rod, 183 mm [7.2 in]	Ø 6,85 [Ø 0.27]	n/a	n/a
	LSZ59T	330 [13] stainless steel	Ø 4,8 [Ø 0.19]	n/a	n/a
Spoke					
	LSZ69CA	152 mm [6.0 in] Stainless	3,2 [0.125]	n/a	n/a

Catalog Listing	Material	Rod/Roller Dia. mm [in]	Rod/Roller Width mm [in]	Roller Mounting	
Fixed 38,1 mm [1.5 in] radius					
	–	Rollerless	n/a	n/a	
LSZ55A	Nylon	19 [0.75]	6,35 [0.25]	Back	
LSZ55B	Steel	19 [0.75]	6,35 [0.25]	Back	
LSZ55C	Nylon	19 [0.75]	6,35 [0.25]	Front	
LSZ55D	Steel	19 [0.75]	6,35 [0.25]	Front	
LSZ55E	Nylon	19 [0.75]	12,7 [0.50]	Front	
LSZ55K	Nylon	38,1 [1.5]	6,35 [0.25]	Front	
Short fixed - 33 mm [1.3 in] radius					
	LSZ59A	Nylon	19 [0.75]	6,35 [0.25]	Front
	LSZ59B	Steel	19 [0.75]	6,35 [0.25]	Front
	LSZ59C	Nylon	19 [0.75]	6,35 [0.25]	Back
	LSZ59D	Steel	19 [0.75]	6,35 [0.25]	Back
38,1 mm [1.5 in] radius one-way roller lever					
	LSZ60A	Nylon	19 [0.75]	6,35 [0.25]	Front
	LSZ60B	Steel	19 [0.75]	6,35 [0.25]	Front
Flexible loop					
	LSZ61	Ø 4,8 [Ø 0.19] Nylatron	152 mm [6 in] flexible loop		
	LSZ618	Ø 4,8 [Ø 0.19] Nylatron	241 mm [9.5 in] flexible loop		
	LSZ54	Hub only	n/a	n/a	
Spring rod					
	LSZ68	Delrin rod, 305 [12]	Ø 6,35 [Ø 0.25]	n/a	n/a
	LSZ617	Delrin rod, 406 [16]	Ø 6,35 [Ø 0.25]	n/a	n/a
	LSZ686	Delrin rod, 152 [6]	Ø 6,35 [Ø 0.25]	n/a	n/a
Rubber roller levers					
	LSZ51Y	Rubber	50 [2.0]	12,7 [0.50]	front
	LSZ55Y	Rubber	50 [2.0]	12,7 [0.50]	front
	LSZ52Y	Rubber	50 [2.0]	12,7 [0.50]	front
Plastic roller levers					
	LSZ67AA* (conveyor)	Plastic	38,1 [1.5]	96,5 [3.8]	n/a

* may require orientation of switch and lever to enable gravity to help restore free position of switch.

MICRO SWITCH™ Heavy-Duty Limit Switches

MICRO SWITCH™ HDLS SIDE ROTARY LEVERS' CAM TRACKING

Levers for side and top rotary switches are normally ordered as separate catalog listings. They also may be ordered by including a suffix to the switch catalog listing (see nomenclature tree in this document) and adding the lever price.

Figure 6. LSZ51 type levers cam tracking

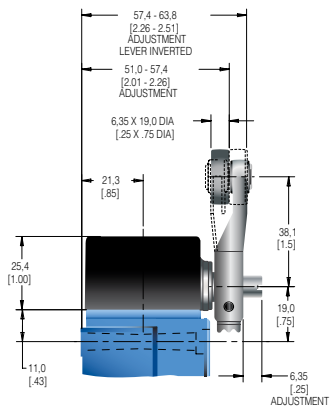


Figure 7. LSZ52 type levers cam tracking

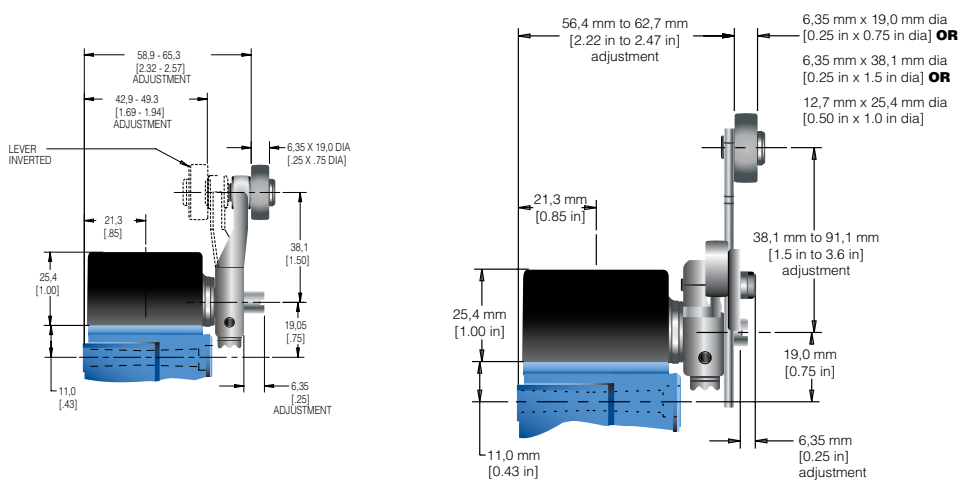


Figure 8. LSZ54 type levers cam tracking

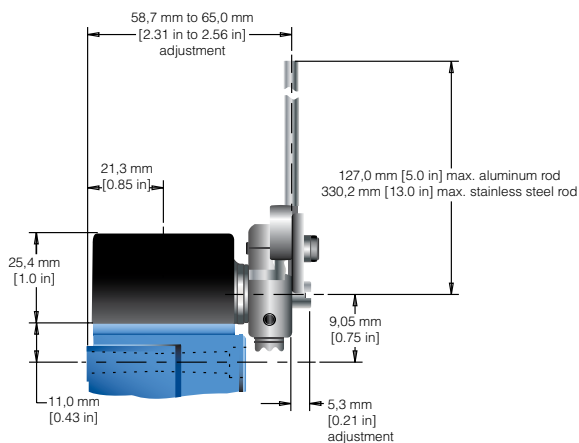


Figure 9. LSZ55 type levers cam tracking

