

# **LIMIT SWITCHES & MACHINE SAFETY**

Product Range Guide



**Honeywell**

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With more than 50,000 products ranging from snap-action, limit, toggle, and pressure switches to position, speed, pressure, and airflow sensors, Honeywell has one of the broadest sensing and switching portfolios.

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# HEAVY-DUTY LIMIT SWITCHES

Offer a rugged, die-cast body with multiple mounting and actuator options. Low- and high-temp construction and factory-sealed, pre-wired versions available. Potential applications include food and beverage, construction and agriculture equipment, material handling, rail, industrial valves, chemical and food processing, shipboard, caustic waste handling, and power generation.



HDLS SERIES	STANDARD	316L STAINLESS STEEL	FULLY POTTED, EPOXY SEALED
Housing type	HDLS plug-in and non-plug-in	316L stainless steel non plug-in	sealed HDLS body
Sealing	IP65/66/67; NEMA 1, 3, 4, 4X, 6, 6P, 12, 13	IP65/66/67; NEMA 1, 3, 3R, 4, 4X, 6, 6P, 12, 13	IP65/66/67; NEMA 1, 3, 4, 6, 6P, 12, 13
Temperature range (standard)	-12 °C to 121 °C [10 °F to 250 °F]	-12 °C to 121 °C [10 °F to 250 °F]	-12 °C to 121 °C [10 °F to 250 °F]
Low temperature range (optional)	-40 °C to 121 °C [-40 °F to 250 °F]	-40 °C to 121 °C [-40 °F to 250 °F]	-40 °C to 121 °C [-40 °F to 250 °F]
Housing material	zinc die-cast w/ epoxy coating	stainless steel	zinc die-cast w/ epoxy coating
Actuators/levers	<ul style="list-style-type: none"> <li>• top pin plunger</li> <li>• top pin plunger, adjustable</li> <li>• top roller plunger</li> <li>• top rotary</li> <li>• side rotary</li> <li>• side rotary (maintained)</li> <li>• side pin plunger</li> <li>• side pin plunger, adjustable</li> <li>• side pin plunger, maintained</li> <li>• side roller plunger</li> <li>• wobble</li> </ul>	<ul style="list-style-type: none"> <li>• top pin plunger</li> <li>• top roller plunger</li> <li>• side rotary</li> <li>• side rotary (maintained)</li> <li>• side pin plunger</li> <li>• side roller plunger</li> </ul>	<ul style="list-style-type: none"> <li>• top pin plunger</li> <li>• top pin plunger, adjustable</li> <li>• top roller plunger</li> <li>• top rotary</li> <li>• side rotary</li> <li>• side rotary (maintained)</li> <li>• side pin plunger</li> <li>• side pin plunger, adjustable</li> <li>• side pin plunger, maintained</li> <li>• side roller plunger</li> <li>• wobble</li> </ul>
Termination	<ul style="list-style-type: none"> <li>• 0.5 in/0.75 in-14NPT conduit</li> <li>• 20 mm conduit</li> <li>• PG13.5</li> <li>• 6-ft and 12-ft cable</li> <li>• manifold</li> <li>• 4, 5, and 9-pin mini-connector</li> <li>• 4-pin micro-connector</li> </ul>	<ul style="list-style-type: none"> <li>• 0.5 in/0.75 in-14NPT conduit</li> <li>• 12-ft cable</li> </ul>	<ul style="list-style-type: none"> <li>• cable (various lengths)</li> <li>• 4, 5, and 9-pin mini-connector</li> </ul>
Approvals	UL, CE, CSA, CCC, EN60947-1, EN60947-5-1	UL, CE, CSA, CCC, EN60947-1, EN60947-5-1	UL, CE, CSA, CCC, EN60947-1, EN60947-5-1
Circuitry (double break contacts)	<ul style="list-style-type: none"> <li>• 1NC 1NO SPDT, snap action</li> <li>• 1NC direct acting,</li> <li>• 2NC 2NO DPDT, snap action</li> <li>• 2NC 2NO DPDT sequential, snap action</li> <li>• 2NC 2NO DPDT center neutral, snap action</li> </ul>	<ul style="list-style-type: none"> <li>• 1NC 1NO SPDT, snap action</li> <li>• 1NC direct acting,</li> <li>• 2NC 2NO DPDT, snap action</li> <li>• 2NC 2NO DPDT sequential, snap action</li> <li>• 2NC 2NO DPDT center neutral, snap action</li> </ul>	<ul style="list-style-type: none"> <li>• 1NC 1NO SPDT, snap action</li> <li>• 1NC direct acting,</li> <li>• 2NC 2NO DPDT, snap action</li> <li>• 2NC 2NO DPDT sequential, snap action</li> <li>• 2NC 2NO DPDT center neutral, snap action</li> </ul>
Contacts	silver, gold	silver, gold	silver, gold
Electrical rating	10 A (thermal) AC15, A600; DC13, R300	10 A (thermal) AC15, A600; DC13, R300	10 A (thermal) AC15, A600; DC13, R300
Measurements (H x W x D)	106,7 mm x 41,1 mm x 44,4 mm [4.20 in x 1.62 in x 1.75 in]	122,9 mm x 47,63 mm x 45,2 mm [4.84 in x 1.875 in x 1.78 in]	106,7 mm x 41,1 mm x 44,4 mm [4.20 in x 1.62 in x 1.75 in]
Features	wide variety of actuators, circuitry options, and connectivity; rugged and dependable, models in service for over 40 years	series 316L 300 stainless steel housing suitable for corrosive environment and wash down food and beverage applications	construction guards against fluid penetration into switch body; suitable for harsh-duty applications

# GENERAL PURPOSE LIMIT SWITCHES

Meet IEC standards for world-wide acceptance – often used in injection molding, PLC interface, machine tooling, escalators, packaging, food and beverage, industrial, lifts and elevators, electronic assembly, construction and agriculture equipment, material handling, and rail.



SERIES	GLA	GLC
Housing type	EN 50041	EN 50047
Sealing	IP67; NEMA 1, 3, 4, 12, 13	IP66/IP67; NEMA 1, 4, 12, 13
Temperature range	-25 °C to 85 °C [-13 °F to 185 °F] side rotary: -40 °C to 85 °C [-40 °F to 185 °F]	-40 °C to 85 °C [-40 °F to 185 °F]
Housing material	zinc die-cast, epoxy coated	zinc die-cast, epoxy coated
Actuators/levers	side rotary, top pin plunger, top roller lever, top roller plunger, wobble	side rotary, top pin plunger, top roller lever, top roller plunger, wobble
Termination	conduit: 0.5 in - 14NPT, 20 mm, PG13.5	conduit: 0.5 in - 14NPT, 20 mm, PG13.5, Deutsch-style connector (4-pin)
Approvals	UL, CE, CSA, CCC, IEC 947-5-1, EN60947-5-1, UL508	UL, CE, CSA, CCC, IEC 947-5-1, EN60947-5-1, UL508
Circuitry (double break contacts)	<ul style="list-style-type: none"> <li>• SPDT snap action</li> <li>• SPDT slow action, BBM/MBB</li> <li>• DPDT snap action</li> <li>• DPDT sequential</li> <li>• DPDT center neutral</li> <li>• 2NO or 2NC</li> </ul>	<ul style="list-style-type: none"> <li>• SPDT snap action</li> <li>• SPDT slow action, BBM/MBB</li> <li>• 2NC slow action</li> <li>• 2NO slow action</li> </ul>
Contacts	silver, gold	silver, gold
Electrical rating	10 A (thermal) AC15, A600; DC13, Q300	10 A (thermal) AC15, A300; DC13, Q300
Measurements (H x W x D)	103 mm x 42,0 mm x 42,0 mm [4.06 in x 1.65 in x 1.65 in]	85,6 mm x 30,5 mm x 31,1 mm [3.37 in x 1.20 in x 1.23 in]
Features	positive-opening NC contacts ➡	positive-opening NC contacts ➡



GLD	GLE	LS/LS-4	SERIES
EN 50047	EN 50047 compatible	compact/non-plug-in, plug-in	Housing type
IP66/IP67; NEMA 1, 4X (indoor), 12, 13	IP66; NEMA 1, 4, 12, 13	NEMA 1, 3, 4, 6, 13	Sealing
-40 °C to 85 °C [-40 °F to 185 °F]	-40 °C to 85 °C [-40 °F to 185 °F]	-29 °C to 71 °C [-20 °F to 160 °F] -29 °C to 120 °C [-20 °F to 298 °F] (optional)	Temperature range
high-strength thermoplastic	zinc die-cast, epoxy coated	zinc die-cast/aluminum die cast epoxy coated	Housing material
side rotary, top pin plunger, top roller plunger, wobble	side rotary, top pin plunger, top roller plunger, wobble	side rotary, side rotary (maintained), top pin plunger, top roller plunger, side roller plunger, side roller, wobble	Actuators/levers
conduit: 0.5 in - 14NPT, 20 mm, PG13.5, Deutsch-style connector (4-pin)	conduit: 0.5 in - 14NPT, 20 mm, PG13.5, Deutsch-style connector (4-pin)	conduit: 0.5 in - 14NPT, 20 mm, PG13.5	Termination
UL, CE, CSA, CCC, IEC 60947-5-1, EN60947-5-1, UL508, UL746-C	UL, CE, CSA, CCC, IEC 60947-5-1, EN60947-5-1, UL508	LS: UL, CSA (select listings) LS-4: CE (select listings)	Approvals
<ul style="list-style-type: none"> <li>1NC 1NO SPDT snap action</li> <li>1NC 1NO SPDT slow action, BBM/MBB</li> <li>2NC</li> <li>2NO</li> </ul>	<ul style="list-style-type: none"> <li>1NC 1NO SPDT snap action</li> <li>1NC 1NO SPDT slow action, BBM/MBB</li> <li>2NC 2NO DPDT snap action</li> <li>2NC</li> <li>2NO</li> </ul>	SPDT double break, DPDT double break	Circuitry (double break contacts)
silver, gold	silver, gold	silver	Contacts
10 A (thermal) AC15, A300; DC13, Q300	10 A (thermal) AC15, A300; DC13, Q300	LS: 10 A (125, 250 or 480 Vac) LS-4: AC15, A300; DC13, P300	Electrical rating
84,05 mm x 30,5 mm x 32,6 mm [3.31 in x 1.20 in x 1.28 in]	85,9 mm x 65 mm x 31,1 mm [3.38 in x 2.56 in x 1.23 in]	102,9 mm x 30,2 mm x 28,7 mm [4.05 in x 1.19 in x 1.13 in]	Measurements (H x W x D)
positive-opening NC contacts ➡	positive-opening NC contacts ➡	mode of operation is field adjustable; variety of operating characteristics; models in service for more than 60 years	Features

# MINIATURE LIMIT SWITCHES

Miniature switches – each with unique housing and operational characteristics. Designed for modern industrial OEMs, the miniature and compact package sizes fit in applications where space is limited. The mounting pattern meets most globally accepted mounting standards.



SERIES	NGC
Housing type	miniature, metal and plastic options
Sealing	NEMA 1, 4, 12, 13; IP67 per IEC 60529 suitable for outdoor applications
Temperature range	-25 °C to 75 °C [-13 °F to 167 °F]
Housing material	metal and plastic housing options
Actuators/levers	side rotary (standard & short), side rotary with adjustable length roller lever, reversed side rotary (standard & short), pin plunger (standard & long), roller plunger (standard & long), cross roller plunger (standard & long), pin plunger with boot seal, panel-mount pin plunger, panel-mount roller plunger, panel-mount cross roller plunger, panel-mount pin plunger with boot seal, top roller lever arm
Termination	<ul style="list-style-type: none"> <li>• cable 0,75 mm<sup>2</sup> (18 AWG),</li> <li>• PUR cable 0,75 mm<sup>2</sup> (18 AWG),</li> <li>• special application cable, 4 &amp; 5 x 0,75 mm<sup>2</sup> (18 AWG) non-halogen,</li> <li>• connector, 4-pin male, M12 thread,</li> <li>• connector, 5-pin male, M12 thread,</li> <li>• cable 0,50 mm<sup>2</sup> (20 AWG)</li> <li>• PUR cable, 0,50 mm<sup>2</sup> (20 AWG)</li> <li>• special application cable, 8 &amp; 9 x 0,50 mm<sup>2</sup> (20 AWG) non-halogen</li> </ul>
Approvals	UL (UL508), cUL, CE (IEC 60947-5-1), CCC (GB14048.5-2008)
Circuitry	SPDT, DPDT; snap action contacts (1NC/1NO, 2NC/2NO)
Contacts	snap action, positive break standard: silver alloy; gold: gold-plated
Electrical rating	various (refer to datasheet)
Measurements (H x W x D)	55,8 mm x 30 mm x 16,7 mm [2.2 in x 1.19 in x 0.66 in]
Features	can be configured more than 380,000 ways, carries global approvals, and are sealed to IP67 for potential use in indoor and outdoor applications



14CE/914CE	SZL-VL-S	SL1	SERIES
miniature	miniature	side mount	Housing type
IP65, IP66, IP67; IP68 NEMA 1, 3, 3R, 4, 6, 6P, 12 (boot seal), 13	IP67	IP67; NEMA 3, 4, 13	Sealing
0 °C to 70 °C [35 °F to 158 °F] -40 °C [-40 °F] low temp (optional)	-20°C to 70°C [-4°F to 158°F] (with no icing)	-10 °C to 70 °C [14 °F to 158 °F]	Temperature range
zinc die-cast, epoxy coated	die-cast metal housing with glass-filled, flame-retardant thermoplastic cover; UL 94 flame spread testing: V-0 rated	zinc die-cast	Housing material
side rotary, top pin plunger, top roller plunger, pushbutton, wobble, panel mount	side rotary (positive-opening contacts), top pin plunger, top roller plunger, wobble, wobble cat whisker	top pin plunger, top roller plunger, top cross roller plunger, top roller lever	Actuators/levers
cable, micro-connector	conduit entry or cable gland	cable gland (cable diameter 5,8 mm to 9,6 mm)	Termination
14CE: CE, IEC947-5-1, EN60947-5-1 914CE: UL, CE, CSA, IEC947-5-1, EN60947-5-1	CCC, CE, cULus	UL, CSA	Approvals
SPDT	1NC 1NO SPDT	SPDT	Circuitry
silver, gold	silver alloy	silver, gold	Contacts
5 A (thermal) AC14, D300; DC13, R300	AC-15 A300 (380 Vac/0.5 A) DC-13 Q300 (220 Vdc/0.05 A)	5 A	Electrical rating
49 mm x 40 mm x 16 mm [1.93 in x 1.58 in x 0.63 in]	64 mm x 28,5 mm x 25,7 mm 2.52 in x 1.12 in x 1.01 in	59,8 mm x 44,2 mm x 18 mm [2.35 in x 1.74 in x 0.71 in]	Measurements (H x W x D)
rugged metal housing; miniature size; pre-leaded or various quick-connect terminations; low-temperature available	stainless steel levers with either steel and nylon rollers; variety of actuators; positive-opening contacts (side-rotary version only)	often ideal source for replacement parts for machine tools; rugged housing; snap-in terminal enclosures; standard and low temperature ranges	Features

# COMPACT PRECISION LIMIT SWITCHES

Featuring a small-to-medium metal and plastic package sizes. Potential applications include material handling, printing, machine tools, agricultural equipment, cranes, packaging, earth moving, conveyors, surtran, textile, and printing.



SERIES	E6	V6
Housing type	side mount	flange mount
Sealing	E6/V6-RQ: IP40; NEMA 1 E6/V6-RN: IP66; NEMA 1, 3, 4	E6/V6-RQ: IP40; NEMA 1 E6/V6-RN: IP66; NEMA 1, 3, 4
Temperature range	-32 °C to 71 °C [-25 °F to 160 °F] -40 °C [-40 °F] low temp (optional)	-32 °C to 71 °C [-25 °F to 160 °F] -40 °C [-40 °F] low temp (optional)
Housing material	zinc die-cast, epoxy coated	zinc die-cast, epoxy coated
Actuators/levers	top pin plunger, maint. with reset plunger, wobble, top roller lever, top roller plunger, cross roller plunger, one-way roller lever	top pin plunger, maint. with reset plunger, wobble, top roller lever, top roller plunger, cross roller plunger, one-way roller lever
Termination	0.5 in - 14NPT (or NPSM) conduit, mini-connector, cable	0.5 in - 14NPT (or NPSM) conduit, mini-connector, cable
Approvals	UL, CSA, CE	UL, CSA, CE
Circuitry	SPDT, DPDT	SPDT, DPDT
Contacts	silver, gold	silver, gold
Electrical rating	10 A, 15 A, 22 A @ 125, 250, or 480 Vac EN 60947-5-1; IEC 60947-5-1; AC15, B300	10 A, 15 A, 22 A @ 125, 250, or 480 Vac EN 60947-5-1; IEC 60947-5-1; AC15, B300
Measurements (H x W x D)	63,5 mm x 25,4 mm x 77,2 mm [2.50 in x 1.00 in x 3.04 in]	63,5 mm x 25,4 mm x 77,2 mm [2.50 in x 1.00 in x 3.04 in]
Features	rugged electrostatic, epoxy-coated housing; booted versions sealed to IP66; unsealed actuators sealed to IP40; side or flange mount; low temperature options; models in service for more than 60 years	rugged electrostatic, epoxy-coated housing; booted versions sealed to IP66; unsealed actuators sealed to IP40; side or flange mount; low temperature options; models in service for more than 60 years



E7	V7	SERIES
side mount,	flange mount	Housing type
E7/V7-RQ: IP50 E7/V7-RN or RQN: IP65	E7/V7-RQ: IP50 E7/V7-RN or RQN: IP65	Sealing
-30 °C to 70 °C [22 °F to 158 °F]	-30 °C to 70 °C [22 °F to 158 °F]	Temperature range
aluminum die-cast, epoxy coated	aluminum die-cast, epoxy coated	Housing material
top pin plunger, top roller plunger, top roller lever, one-way roller lever, wobble, cross-roller plunger	top pin plunger, top roller plunger, top roller lever, one-way roller lever, wobble, cross-roller plunger	Actuators/levers
20 mm, PG13.5 single or double conduit	20 mm, PG13.5 single or double conduit	Termination
CE	CE	Approvals
SPDT, DPDT	SPDT, DPDT	Circuitry
silver	silver	Contacts
SPDT: AC15, A300; DC13, Q300 DPDT: AC15, B300; DC13, R300	SPDT: AC15, A300; DC13, Q300 DPDT: AC15, B300; DC13, R300	Electrical rating
single conduit: 45,3 mm x 76,4 mm x 25,4 mm [1.79 in x 3.01 in x 1.00 in] double conduit: 45,2 mm x 84,6 mm x 25,4 mm [1.78 in x 3.33 in x 1.00 in]	single conduit: 45,3 mm x 76,4 mm x 25,4 mm [1.79 in x 3.01 in x 1.00 in] double conduit: 45,2 mm x 84,6 mm x 25,4 mm [1.78 in x 3.33 in x 1.00 in]	Measurements (H x W x D)
compact, general-purpose limit switch for medium-duty indoor or outdoor applications	compact, general-purpose limit switch for medium-duty indoor or outdoor applications	Features

# HAZARDOUS AREA LIMIT SWITCHES

Designed to extinguish the flame path in a potentially explosive environment, MICRO SWITCH hazardous area switches are weatherproof, water-tight, and dust-tight. These highly reliable, rugged switches are often used in control valves, petrochemical, conveyors, grain elevators, and material handling.



SERIES	BX	BX2
Approvals	BX (1/2 NPT or 3/4 NPT): UL, CSA, ATEX, IEC Ex, NEPSI (China) BX (20 mm): ATEX, IEC Ex, NEPSI (China), KOSHA/KTL (Korea), IN METRO (Brasil)	BX2 (1/2 NPT, 3/4 NPT, 20 mm): UL, cUL, ATEX, IEC Ex, NEPSI (China), KOSHA/KTL (Korea), IN METRO (Brasil)
Designations	NEMA 7, Div. 1 & 2, Class I, Groups B, C, & D NEMA 9, Div. 1 & 2, Class II, Groups E, F, & G II 2 G Ex d IIC T6 Gb II 2 D Ex tb IIIC T85°C Db	NEMA 7, Div. 1 & 2, Class I, Groups B, C, & D NEMA 9, Div. 1 & 2, Class II, Groups E, F, & G II 2 G Ex d IIC T6 Gb II 2 D Ex tb IIIC T85°C Db
Sealing	P67; NEMA 1, 3, 4, 6, 13	IP67; NEMA 1, 3, 4, 6, 13
Housing material	aluminum, epoxy coated	stainless steel
Actuators/levers	side rotary, side rotary (maintained), side pin plunger, side pin plunger - adjustable, side roller plunger, top rotary, top pin plunger, top pin plunger - adjustable, top roller plunger, wobble	side rotary, side rotary (maintained), side pin plunger, side roller plunger, top pin plunger, top roller plunger
Termination	0.5 in - 14NPT conduit, 0.75 in - 14NPT conduit, 20 mm conduit	conduit: 0.5 in - 14NPT, 0.75 in - 14NPT, 20 mm
Circuitry (double break contacts)	<ul style="list-style-type: none"> <li>1NC 1NO SPDT snap action</li> <li>2NC 2NO DPDT snap action</li> <li>2NC 2NO DPDT snap action, center neutral</li> <li>2NC 2NO DPDT snap action, sequential</li> </ul>	<ul style="list-style-type: none"> <li>1NC 1NO SPDT snap action</li> <li>2NC 2NO DPDT snap action</li> <li>2NC 2NO DPDT snap action, center neutral</li> <li>2NC 2NO DPDT snap action, sequential</li> </ul>
Operating temperature	-40 °C to 70 °C [-40 °F to 158 °F]	-40 °C to 70 °C [-40 °F to 158 °F]
Electrical rating	10 A (thermal) AC15, A600; DC13, R300	10 A (thermal) AC15, A600; DC13, R300
Measurements (H x W x D)	146,1 mm x 76,2 mm x 72,9 mm] [5.75 in x 3.00 in x 2.87 in]	146,1 mm x 76,2 mm x 72,9 mm] [5.75 in x 3.00 in x 2.87 in]
Features	diverse conduit selection; compatible with LSX; tracking interchangeability with MICRO SWITCH HDLS; variety of heads and non-sparking actuators; 10 A thermal electrical rating; silver or gold contacts; ATEX-required external ground screw; global agency approvals	corrosion-resistant stainless steel housing; diverse conduit selection; tracking interchangeability with MICRO SWITCH LSX and BX series products; variety of heads and non-sparking actuators; 10 A thermal electrical rating; silver or gold contacts; ATEX-required external ground screw; global agency approvals



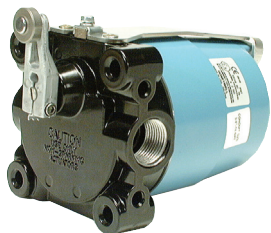
LSX	GSX	CLSX	SERIES
UL, CSA	cULus, ATEX, IEC Ex, KOSHA/KTL (Korea), IN METRO (Brasil), SIL3 capable	UL, CSA	Approvals
NEMA 7, Div. 1 & 2, Class I, Groups B, C, & D NEMA 9, Div. 1 & 2, Class II, Groups E, F, & G	NEMA 7, Div. 1 & 2, Class I, Groups B, C, & D NEMA 9, Div. 1 & 2, Class II, Groups E, F, & G II 2 G; Ex d IIC T6 II 2 D; Ex d tD A21 T85°C	NEMA 7, Div. 1 & 2, Class I, Groups B, C, & D NEMA 9, Div. 1 & 2, Class II, Groups E, F, & G	Designations
IP67; NEMA 1, 3, 4, 6, 13	IP67; NEMA 1, 4, 12, 13	NEMA 1, 3, 4, 13	Sealing
aluminum, epoxy coated	aluminum, epoxy coated	aluminum, epoxy coated	Housing material
side rotary, side rotary (maintained), side pin plunger, side pin plunger - adjustable, side roller plunger, top rotary, top pin plunger, top pin plunger - adjustable, top roller plunger, wobble	side rotary, top pin plunger, top roller plunger, top roller lever	cable/rope pull, maintained	Actuators/levers
0.5 in - 14NPT conduit, 0.75 in - 14NPT conduit	conduit: 0.5 in - 14NPT, 20 mm, PG13,5	conduit: 0.5 in - 14NPT, 0.75 in - 14NPT	Termination
<ul style="list-style-type: none"> <li>1NC 1NO SPDT snap action</li> <li>2NC 2NO DPDT snap action</li> <li>2NC 2NO DPDT snap action, center neutral</li> <li>2NC 2NO DPDT snap action, sequential</li> </ul>	<ul style="list-style-type: none"> <li>1NC 1NO snap action</li> <li>2NC 2NO snap action</li> <li>2NC slow action</li> <li>2NO slow action</li> <li>1NC 1NO BBM slow action</li> <li>1NC 1NO MBB slow action</li> <li>2NC 1NO BBM slow action</li> <li>2NC 2NO BBM slow action</li> <li>3NC 1NO BBM slow action</li> <li>4NC slow action</li> </ul>	<ul style="list-style-type: none"> <li>1NC</li> <li>1NC 1NO</li> <li>2NC</li> </ul>	Circuitry (double break contacts)
-12 °C to 121 °C [10 °F to 250 °F] -40 °C to 121 °C [-40 °F to 250 °F] (optional)	-40 °C to 70 °C [-40 °F to 158 °F]	-1 °C to 70 °C [-30 °F to 158 °F]	Operating temperature
10 A (thermal) AC15, A600; DC13, R300	10 A (thermal) AC15, A300/A600; DC13, Q300	10 A (thermal) AC15, A300/A600; DC13, Q300	Electrical rating
146,1 mm x 76,2 mm x 72,9 mm] [5.75 in x 3.00 in x 2.87 in]	154,2 mm x 76,2 mm x 72 mm [6.07 in x 3.00 in x 2.84 in]	158,24 mm x 76,2 mm x 73,2 mm [6.23 in x 3.00 in x 2.88 in]	Measurements (H x W x D)
10 A thermal electrical rating; variety of actuators and circuitry options; silver or gold contacts; field adjustable to meet various application needs	snap-action or slow-action contacts with positive break of NC contacts; simple installation; positive action push plunger; global agency approvals; silver or gold contacts ➡	positive-opening operating of NC contacts; cable length may be 200 ft in straight line; internal grounding screw ➡	Features

# HAZARDOUS AREA LIMIT SWITCHES

Designed to extinguish the flame path in a potentially explosive environment, MICRO SWITCH hazardous area switches are weatherproof, water-tight, and dust-tight. These highly reliable, rugged switches are often used in control valves, petrochemical, conveyors, grain elevators, and material handling.



Series	EX	VPX
Approvals	UL, CSA, ATEX (CE), IEC Ex, IN METRO (Brasil)	cULus, ATEX, IEC Ex, CE, KOSHA/KTL (Korea), NEPSI, SIL3 capable
Designations	NEMA 7, Div. 1 & 2, Class I, Groups B, C, & D (select catalog listings) NEMA 9, Div. 1 & 2, Class II, Groups E, F, & G II 2 G; EEx d IIB + H2 T6	<b>snap-action switches:</b> II 2 G, II 2 D (ATEX Rating) Ex db IIC T6 Gb (Gas) Ex tb IIIC T85°C Db (Dust) Ta -40 °C to +50 °C (Switch Code 4A or 4B) Ta -40 °C to +60 °C (Switch Code 2A or 2B)  <b>proximity switches:</b> II 1 G, II 1 D (ATEX Rating) Ex ia IIC T4 Ga (Gas) Ex ia IIIC T135°C Da (Dust) Ta -40 °C to 80 °C
Sealing	NEMA 1	IP66 per IEC 60079-0; IP67 per IEC 60529 (self-certified by Honeywell) NEMA 4, 4X, 6, and 13 per UL 50E
Housing material	aluminum, epoxy coated	aluminum with protective paint finish
Actuators/levers	side rotary, top pin plunger, top roller plunger, manual	indicator shafts: NAMUR, 1/4 in flats, Knurl
Termination	0.5 in - 14NPT conduit, lead wires	conduit: 1/2-14 NPT, 3/4-14 NPT, M20 x 1.5, M25 x 1.5
Circuitry	1NC 1NO SPDT snap action; 1NC 1NO SPDT maintained; 2NC 2NO DPDT snap action	-
Operating temperature (standard)	-40 °C to 71 °C [-40 °F to 160 °F] -40 °C to 204 °C [-40 °F to 400 °F] optional EXHT catalog listing	4 EM switches: -40 °C to 50 °C [-40 °F to 122 °F] 2 EM switches: -40 °C to 60 °C [-40 °F to 140 °F] Proximity switches: -40 °C to 80 °C [-40 °F to 176 °F]
Electrical rating	1 A, 10 A, 15 A, 20 A	<b>snap-action switches:</b> UL: 15 A 150 Vac 10 A 250 Vac 0.5 A 250 Vdc  CE: 16 A 250 Vac 0.5 A 250 Vdc  <b>proximity switches:</b> switch element function: NAMUR, NC Nominal voltage: 8.2 V Current cons. (On) ≤ 1 mA Current cons. (Off) ≥ 3 mA
Measurements (H x W x D)	65,0 mm x 93,0 mm x 51,3 mm [2.56 in x 3.66 in x 2.02 in]	152,3 mm H x 140 mm W x 140 mm D [6.0 in H x 5.5 in W x 5.5 in D] ref.
Features	smallest metal housing intended for indoor applications; ample wiring space; mounts from any of four sides; used in temperature range of -40 °C to 71 °C [-40 °F to 160 °F]; global agency approvals	valve position indicator; certified flame-proof, explosion-proof and intrinsically safe (optional); VPX with proximity switches carry an Intrinsically Safe (IS) rating; well suited for up to 500,000 actuation cycles; available in multiple indicator colors that is visible from all directions



CX	GXA	GXE	14CE100	Series
UL, CSA, ATEX (CE), IN METRO, IEC Ex (consult factory for applicable listings)	ATEX (CE), IEC Ex	ATEX (CE), IEC Ex EN 50041 mounting compatible	ATEX (CE)	Approvals
NEMA 7, Div. 1 & 2, Class I, Groups B, C, & D (select catalog listings) NEMA 9, Div. 1 & 2, Class II, Groups E, F, & G II 2 G; Ex d IIC T6 II 2 D; Ex d tD A21 T85°C	II 2 G; EEx d IIC T6 II 2 D; Ex tD A21 T85°C	II 2 G; EEx d IIC T6 II 2 D; Ex tD A21 T85°C	II 2 G; Ex d IIC T6 II 2 D; Ex tD A21 T85°C	Designations
IP66; NEMA 1, 3, 4, 4X, 6, 6P, 13	IP66	IP66	IP65 IP66 (select catalog listings)	Sealing
aluminum (epoxy coated), bronze	zinc, epoxy coated	zinc, epoxy coated	zinc, epoxy coated	Housing material
side rotary, pin plunger	side rotary, top pin plunger, top roller plunger	side rotary, top pin plunger, top roller plunger	top pin plunger, top roller plunger, cross-roller plunger	Actuators/levers
0.75 in - 14 NPT conduit, 25 mm conduit	5 m of harmonised Cenelec cable (three conductor)	5 m of harmonised Cenelec cable (three conductor)	harmonised Cenelec cable (various lengths)	Termination
max. of 6NC/6NO	1NC 1NO SPDT snap action	1NC 1NO SPDT snap action	1NC 1NO SPDT snap action	Circuitry
-25 °C to 85 °C [-13 °F to 185 °F] -40 °C to 85 °C [-40 °F to 185 °F] (optional)	-20 °C to 75 °C [-4 °F to 167 °F]	-20 °C to 75 °C [-4 °F to 167 °F]	0 °C to 70 °C [32 °F to 158 °F]	Operating temperature (standard)
1 A, 10 A, 15 A, 20 A	AC15, 4 A, 250 V; DC13, 0.15 A, 250 V	AC15, 4 A, 250 V; DC13, 0.15 A, 250 V	AC14, D300; DC13, R300	Electrical rating
short cover: 101,6 mm x 101,6 mm x 104 mm [4.00 in x 4.00 in x 4.09 in] standard cover: 101,6 mm x 101,6 mm x 145,0 mm [4.00 in x 4.00 in x 5.71 in]	103 mm x 42,0 mm x 42,0 mm [4.06 in x 1.65 in x 1.65 in]	85,9 mm x 65 mm x 30,0 mm [3.38 in x 2.56 in x 1,18 in]	49,0 mm x 40,0 mm x 16,0 mm [1.93 in x 1.57 in x 0.63 in]	Measurements (H x W x D)
operate point field adjustable; low temp seals; available models for on/off position switching or continuous analog output sensing; single or double pole, double-throw available; global agency approvals	EN 50041 mounting compatible; double-insulated switch element; snap-action basic switch; A-P and European approvals	EN 50047 mounting compatible; double-insulated switch element; snap-action basic switch; A-P and European approvals	pre-wired versions; gang-mounting capability; cable length variations; simple two screw mounting; A-P and European approvals	Features

# MACHINE SAFETY LIMIT SWITCHES

From factory floor to assembly line, from packaging machinery to robot cells, Honeywell delivers reliability and safety in compact, cost-effective safety switches. Enhanced performance, extended productivity, and full-line flexibility. Most models are SIL 3 capable.



SERIES	2CCP	CPS/2CPS	GSX
Attributes	single/dual head cable pull designed to provide emergency stop protection; often used for exposed conveyor and assembly lines along with material handling	single/dual head cable pull designed to provide emergency stop protection; often used for exposed conveyor and assembly lines	switch characteristics to EN50041, heavy-duty metal body, explosion-proof safety switch designed for hazardous area applications
Potential applications	conveyor applications, perimeter guard	conveyor applications, perimeter guard	gates, doors, access panels, cages
Housing	epoxy-coated aluminum housing; plastic face	zinc, epoxy coated	aluminum, epoxy coated
Approvals	UL, cUL, CE, SIL 3 capable	UL, CSA, CE, SIL 3 capable	cULus, ATEX, IEC Ex, IN METRO (Brasil) SIL 3 capable
Sealing	IP54; NEMA 1	IP67; NEMA 1, 4, 12, 13	IP67; NEMA 1, 4, 6, 12, 13
Contacts	fine silver	silver, gold	silver, gold
Circuitry (double break contacts, except FF and FFS)	<ul style="list-style-type: none"> <li>• 1NC 1NO</li> <li>• 2NC 2NO</li> <li>• 3NC 1NO</li> </ul>	<ul style="list-style-type: none"> <li>• 1NC 1NO</li> <li>• 2NC 2NO</li> <li>• 3NC 1NO</li> <li>• 4NC</li> </ul>	<ul style="list-style-type: none"> <li>• 1NC 1NO snap action</li> <li>• 1NC 1NO slow action BBM</li> <li>• 1NC 1NO slow action MBB</li> <li>• 2NC slow action</li> <li>• 2NC 2NO snap action</li> <li>• 4NC slow action</li> <li>• 2NC 1NO slow action BBM</li> <li>• 2NC 2NO slow action BBM</li> <li>• 3NC 1NO slow action BBM</li> </ul>
Differentiator	wide temperature tolerance to avoid nuisance trips, redesigned bright LEDs to indicate cable status	rugged, sealed, large wiring cavity; indicators; wide temperature tolerance; longest span available (up to 500 feet/152 m on dual head 2CPS)	hazardous location and positive-break safety switch with cULus, ATEX, IEC Ex, IN METRO approvals
Measurements (less levers) H x W x D	127,0 mm x 187,0 mm x 60,0 mm [5.0 in x 7.34 in x 2.35 in]	1CPS: 178,2 mm x 99,1 mm x 65,3 mm [6.8 in x 3.9 in x 2.57 in] 2CPS: 152,4 mm x 165,1 mm x 84,1 mm [6.0 in x 6.5 in x 3.31 in]	154,2 mm x 76,2 mm x 72 mm [6.07 in x 3.00 in x 2.84 in]
Temperature	-40 °C to 85 °C [-40 °F to 185 °F]	-40 °C to 85 °C [-40 °F to 185 °F]	-40 °C to 70 °C [-40 °F to 158 °F]
Electrical rating	10 A (thermal); AC15, A300; DC13, Q300	10 A (thermal); AC15, A300; DC13, Q300	
Features	optional hardware packs; large wiring cavity; easy-to-read cable tension windows; improved LEDs for cable status; positive opening NC contacts ➡	optional hardware packs; heavy-duty terminals: gold contacts; positive opening of NC contacts (up to 4 contacts); LED status lights; positive opening NC contacts ➡	extensive switching and actuating options; designed so even welded contacts will open and machine will stop in emergency with positive opening NC contacts (direct mechanical linkage) ➡





GSS	24CE/924CE	FF AND FFS	SERIES
EN50047 (metal or plastic), EN50041 (metal), designed to global standards	miniature, compact die-cast zinc housing construction with a wide variety of actuators, IEC945-5-1, EN60947-5-1	non-contact safety switches either magnetically operated or by electronically coded magnets providing high degree of tamper-resistant, reliable operation	Attributes
medium/large doors and apertures	small doors and apertures	small doors and apertures	Potential applications
glass-filled polyester, zinc epoxy coated	zinc, epoxy coated	ABS resin-filled, stainless steel	Housing
UL, CSA, CE, SIL 3 capable	24CE: CE; 924CE: UL, CE, SIL 3 capable	UL, CE	Approvals
metal: IP66; NEMA 1, 4, 12, 13 plastic: IP66/IP67; NEMA 1, 4 (indoor), 12, 13	IP66	IP67, NEMA 4	Sealing
silver, gold	silver	–	Contacts
EN50041 <ul style="list-style-type: none"> <li>• 1NC 1NO snap action</li> <li>• 1NC 1NO slow action BBM</li> <li>• 1NC 1NO slow action MBB</li> <li>• 2NC slow action</li> <li>• 2NC 2NO snap action</li> <li>• 4NC slow action</li> <li>• 2NC 1NO slow action BBM</li> <li>• 2NC 2NO slow action BBM</li> <li>• 3NC 1NO slow action BBM</li> </ul>	EN50047 <ul style="list-style-type: none"> <li>• 1NC 1NO snap action</li> <li>• 1NC 1NO slow action BBM</li> <li>• 1NC 1NO slow action MBB</li> <li>• 2NC slow action</li> </ul>	<ul style="list-style-type: none"> <li>• 1NC slow action,</li> <li>• 1NC 1NO slow action BBM</li> <li>• 1NC 1NO slow action MBB</li> </ul>	1 or 2 safety contacts. Select catalog listings offer an auxiliary contact  Circuitry (double break contacts, except FF and FFS)
highly visible red housing; snap action and slow action basic switches	smallest safety switch offering from Honeywell; tough and rugged switch, designed to operate in harsh operating environments	large actuation window from almost any angle (ranges ~6 mm to 20 mm); sealed, compact and rugged design	Differentiator
83,0 mm x 30,5 mm x 30,0 mm [3.27 in x 1.20 in x 1.18 in]	49,0 mm x 40,0 mm x 16,0 mm [1.93 in x 1.57 in x 0.63 in]	87 mm x 24 mm x 19 mm [3.43 in x 0.95 in x 0.75 in]	Measurements (less levers) H x W x D
-25 °C to 85 °C [-13 °F to 185 °F] -40 °C to 85 °C [-40 °F to 185 °F] (side rotary operating heads)	0 °C to 70 °C [32 °F to 158 °F] -40 °C to 70 °C [-40 °F to 158 °F] (optional)	-10 °C to 55 °C [14 °F to 131 °F]	Temperature
	AC15, B300; DC13, R300		Electrical rating
multiple contact options (up to 4 NC); full range of actuator heads and levers; reliable low energy switching; tested to 15 million operations; positive opening NC contacts	simple two screw mounting; available pre-wired with choice of cable lengths or connector fitted; side and bottom cable entry; positive opening NC contacts	guard status indication; small, easy to mount; either pre-wired or connector fitted; allows for door misalignment with door closed sensing	Features

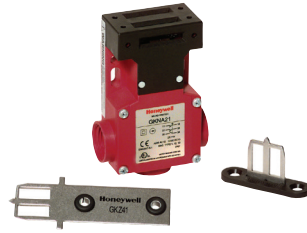


# MACHINE SAFETY LIMIT SWITCHES

Designed to help pass any test with the most impressive safety switch portfolio and solutions for application-specific needs. Widest range of sizing, sealing alternatives, enclosure materials, actuator styles, and contact options available.



SERIES	GK	GKE
Attributes	heavy duty metal body keyed interlock switch designed for large doors and cages	compact housing size, standard IEC 20 mm mounting
Potential applications	large, heavy door cage and gate applications	small doors and apertures
Housing	zinc, epoxy coated	glass-filled polyester
Approvals	UL, CSA, CE, SIL 3 capable	cULus, CE, S-mark, SIL 3 capable
Sealing	IP67; NEMA 1, 4, 12, 13	IP66/IP67; NEMA 1, 4X (indoor), 12, 13
Contacts	silver, gold	silver
Circuitry (double break contacts)	<ul style="list-style-type: none"> <li>• 1NC 1NO snap action</li> <li>• 2NC 2NO snap action</li> <li>• 1NC 1NO slow action BBM</li> <li>• 1NC 1NO slow action MBB</li> <li>• 2NC 1NO slow action BBM</li> <li>• 2NC 2NO slow action BBM</li> <li>• 3NC 1NO slow action BBM</li> <li>• 2NC slow action</li> <li>• 4NC slow action</li> </ul>	<ul style="list-style-type: none"> <li>• 1NC 1NO snap action</li> <li>• 1NC 1NO slow action BBM</li> <li>• 2NC slow action</li> </ul>
Differentiator	unique friction feature for key retention; rugged design withstands vibration, harsh environments, and provides long-term durability (tested 15 million cycles)	small MIN-DIN footprint; simple wiring and mounting; double insulated
Measurements (less levers) H x W x D	121,6 mm x 42 mm x 42,6 mm [1.79 in x 1.652 in x 1.68 in]	95,7 mm x 30,5 mm x 32,9 mm [3.77 in x 1.20 in x 1.30 in]
Temperature	-25 °C to 85 °C [-13 °F to 185 °F]	-25 °C to 85 °C [-13 °F to 185 °F]
Electrical rating	AC15, A300/A600; DC13, Q300	AC15, A300/A600; DC13, Q300
Features	top or side entry lockout device options available; LED indicator; up to four contacts; positive opening NC contacts 	medium duty switch covers most common 1NC/1NO and 2NC applications key entry from top and front 



GKM	GKN	SERIES
most compact key-operated safety product available; fully sealed construction	common footprint safety switch for multiple applicability; multiple contacts, multiple key and wiring entry points	Attributes
small doors and apertures	small/medium doors and apertures	Potential applications
glass-filled polyester	glass-filled polyester	Housing
UL, CSA, CE, SIL 3 capable	cULus, CE, CCC, S-mark, SIL 3 capable	Approvals
IP67; NEMA 1, 12, 13	IP67; NEMA 1, 4X (indoor use only), 12, 13	Sealing
silver, gold	silver	Contacts
<ul style="list-style-type: none"> <li>1NC 1NO BBM</li> <li>2NC</li> </ul>	<ul style="list-style-type: none"> <li>2NC 1NO slow action BBM</li> <li>3NC slow action</li> </ul>	Circuitry (double break contacts)
can be used for doors as small as 160 mm [6.3 in] with small closed radius; available cabled or with integrated M12 connectors for plug-and-play install	one switch stocking for multiple contact, key entry, and wiring application combinations; large wiring cavity	Differentiator
69,4 mm x 34,0 mm x 16,0 mm [2.73 in x 1.34 in x 0.63 in]	90,0 mm x 64,0 mm x 30,0 mm [3.55 in x 2.52 in x 1.18 in]	Measurements (less levers) H x W x D
-25 °C to 85 °C [-13 °F to 185 °F]	-25 °C to 70 °C [-13 °F to 158 °F]	Temperature
AC15, A300; DC13, Q300	AC15, A600; DC13, Q300	Electrical rating
double insulated, no ground wiring required; wiring entrance options from bottom, side, or both (dual entry GKME for daisy chain capability); variety of keys available for top or front entry options; positive opening NC contact	multi-use, multi-option; up to 3 contacts for additional monitoring; 4 key head entries; knock-out points for wiring entry; double insulated body; rigid and flexible key options available	Features



# RELIALIGN™ DOOR INTERLOCK SWITCHES

Designed specifically for residential and commercial swing-door applications, including swing-door elevators, platform lifts, dumbwaiters, and lifts for the mobility impaired. Holds the door in place and prevents it from being opened when not desired. Design contributes to increase safety, reduce nuisance stoppages and call-backs, and simplified wiring and installation.



DOOR INTERLOCK	RELIALIGN™ RDI SERIES	RELIALIGN™ CDI SERIES
Description	door interlock for residential swing-style doors, elevators, and vertical lifts. available with metal housing	door interlock for commercial swing-style doors, elevators, and vertical lifts. available with metal housing
Use	<b>In the USA:</b> residential swing door applications, specifically dumbwaiters, lifts for the mobility impaired, and swing-door elevators <b>In Canada:</b> residential swing door applications, specifically elevators and dumbwaiters	<b>In the USA:</b> swing door applications, specifically dumbwaiters, material lifts, lifts for the mobility impaired and private residence swing-door elevators <b>In Canada:</b> swing door applications, specifically dumbwaiters, material lifts, and residential elevators
Housing	metal (white and architectural bronze)	metal (white)
Approvals	compliant to ASME A17.1 and UL 104	compliant to ASME A17.1, ASME A18.1, cULus, and CAN/CSA B44
Voltage	24 Vdc; 24 Vac	24 Vac/Vdc, ±5 %
Connection	terminal strip or cat 5 available	terminal strip or cat 5 available
Measurements (H x W x D)	247,65 mm x 51,44 mm x 49,23 mm [9.75 in x 2.025 in x 1.938 in]	247,65 mm x 51,44 mm x 49,23 mm [9.75 in x 2.025 in x 1.938 in]
Features	two separate mechanisms to indicate door closure; metal key; internal solenoid control; no open or exposed contacts; configurable product platform	long life of 1 million operations minimum; exceeds commercial pull force standard of 675 pound pull force by 2X

## 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 that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is customer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

## FOR MORE INFORMATION

Honeywell Sensing and Internet of Things services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing, or the nearest Authorized Distributor, visit [sensing.honeywell.com](http://sensing.honeywell.com) or call:

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