# LIMIT SWITCHES \& MACHINE SAFETY 



## FORINNOVATION THAT${ }^{\top}$ SWELLAPART, THERE'S ONLY HONEYWELL.

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.

Honeywell sensor, switch, and control components are tailored to exact specifications for stronger performance, longer productivity, and increased safety. Enhanced accuracy and durability are built into every part, improving output and endurance. For our customers, this can reduce expenditures and operational costs. Our global footprint and channels help to competitively price such components for your chosen application and provide immediate technical support.

While Honeywell's switch and sensor solutions are suitable for a wide array of basic and complex applications, our custom-engineered solutions offer enhanced precision, repeatability, and ruggedness. We offer domain knowledge and technology resources, along with a close working relationship, to develop and deliver cost-effective, individually tailored solutions. Whether clean-slate development or simple modifications to an existing design are needed, our expertly engineered solutions help to meet the most stringent requirements with world-class product designs, technology integration, and customer-specific manufacturing.

Global service, sourcing, and manufacturing. Industry-leading engineers. Value-added assemblies and solutions. A one-stop, full-service, globally competitive supplier.

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## HDLS SERIES

Housing type

| Sealing | - |
| :--- | :--- |
| Temperature range <br> (standard) | -1 |

## STANDARD

HDLS plug-in and non-plug-in
IP65/66/67;
NEMA 1, 3, 4, 4X, 6, 6P, 12, 13
$-12{ }^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}$
$\left[10^{\circ} \mathrm{F}\right.$ to $\left.250^{\circ} \mathrm{F}\right]$
$-40^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}$
[-40 ${ }^{\circ} \mathrm{F}$ to $\left.250^{\circ} \mathrm{F}\right]$
zinc die-cast w/ epoxy coating

- top pin plunger
- top pin plunger, adjustable
- top roller plunger
- top rotary
- side rotary
- side rotary (maintained)
- side pin plunger
- side pin plunger, adjustable
- side pin plunger, maintained
- side roller plunger
- wobble
- 0.5 in/ 0.75 in-14NPT conduit
- 20 mm conduit
- PG13.5
- 6 -ft and 12 -ft cable
- manifold
- 4, 5, and 9-pin mini-connector
- 4-pin micro-connector


## Approvals

Approvals
Circuitry
(double break
contacts)

\section*{| Contacts |
| :--- |
| Electrical rating |}

## Measurements

( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ )

## Features

UL, CE, UKCA, CSA, CCC, EN60947-1, EN60947-5-1

- 1NC 1NO SPDT, snap action
- 1NC direct acting,
- 2NC 2NO DPDT, snap action
- 2NC 2NO DPDT sequential, snap action
- 2NC 2NO DPDT center neutral, snap action
silver, gold
10 A (thermal)
AC15, A600; DC13, R300
$106,7 \mathrm{~mm} \times 41,1 \mathrm{~mm} \times 44,4 \mathrm{~mm}$ [4.20 in $\times$ $1.62 \mathrm{in} \times 1.75 \mathrm{in}$ ]
wide variety of actuators, circuitry options, and connectivity; rugged and dependable, models in service for over 40 years

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.


## 316L STAINLESS STEEL

316L stainless steel non plug-in IP65/66/67; NEMA 1, 3, 3R, 4, 4X, 6, 6P, 12, 13

| $-12^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}$ |
| :--- |
| $\left[10^{\circ} \mathrm{F}\right.$ to $\left.250^{\circ} \mathrm{F}\right]$ |
| $-40^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}$ |
| $\left[-40^{\circ} \mathrm{F}\right.$ to $\left.250^{\circ} \mathrm{F}\right]$ |
| stainless steel |

## stainless steel

- top pin plunger
- top roller plunger
- side rotary
- side rotary (maintained)
- side pin plunger
- side roller plunger


## FULLY POTTED, EPOXY SEALED

sealed HDLS body
|P65/66/67;
NEMA 1, 3, 4, 6, 6P, 12, 13
$-12^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}$
[10 ${ }^{\circ} \mathrm{F}$ to $250^{\circ} \mathrm{F}$ ]
$-40^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}$
[-40 ${ }^{\circ} \mathrm{F}$ to $250^{\circ} \mathrm{F}$ ]
zinc die-cast w/ epoxy coating

- top pin plunger
- top pin plunger, adjustable
- top roller plunger
- top rotary
- side rotary
- side rotary (maintained)
- side pin plunger
- side pin plunger, adjustable
- side pin plunger, maintained
- side roller plunger
- wobble
- cable (various lengths)
- 4, 5, and 9-pin mini-connector

UL, CE, UKCA, CSA, CCC, EN60947-1, EN60947-5-1

- 1NC 1NO SPDT, snap action
- 1 NC direct acting,
- 2NC 2NO DPDT, snap action
- 2NC 2NO DPDT sequential, snap action
- 2NC 2NO DPDT center neutral, snap action
silver, gold
10 A (thermal)
AC15, A600; DC13, R300
$122,9 \mathrm{~mm} \times 47,63 \mathrm{~mm} \times 45,2 \mathrm{~mm}[4.84 \mathrm{in} \times$ $1.875 \mathrm{in} \times 1.78 \mathrm{in}]$
series 316L 300 stainless steel housing suitable for corrosive environment and wash down food and beverage applications


## UL, CE, UKCA, CSA, CCC, EN60947-1,

 EN60947-5-1- 1NC 1NO SPDT, snap action
- 1 NC direct acting,
- 2NC 2NO DPDT, snap action
- 2NC 2NO DPDT sequential, snap action
- 2NC 2NO DPDT center neutral, snap action
silver, gold
10 A (thermal)
AC15, A600; DC13, R300
$106,7 \mathrm{~mm} \times 41,1 \mathrm{~mm} \times 44,4 \mathrm{~mm}[4.20 \mathrm{in} \times$ $1.62 \mathrm{in} \times 1.75 \mathrm{in}]$
construction guards aganst fluid penetration into switch body; suitable for harsh-duty applications

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.


CLA
EN 50041
IP67; NEMA 1, 3, 4, 12, 13
$-25^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-13{ }^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$ side rotary: $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$
zinc die-cast, epoxy coated
side rotary, top pin plunger, top roller lever, top roller plunger, wobble
conduit: 0.5 in - 14NPT, 20 mm, PG13.5
UL, CE, UKCA, CSA, CCC, IEC 947-5-1,
EN60947-5-1, UL508

- SPDT snap action

| Housing material | zinc die-cast, epoxy coated | zinc die-cast, epoxy coated |
| :--- | :--- | :--- |
| Actuators/levers | side rotary, top pin plunger, top roller lever, <br> top roller plunger, wobble | side rotary, top pin plunger, top roller lever, <br> top roller plunger, wobble |
| Termination | conduit: 0.5 in - 14NPT, 20 mm, PG13.5 | conduit: 0.5 in $-14 \mathrm{NPT}, 20 \mathrm{~mm}, \mathrm{PG} 13.5$, |
|  | UL, CE, UKCA, CSA, CCC, IEC 947-5-1, | Deutsch-style connector (4-pin) |

Circuitry
(double break contacts)

- SPDT slow action, BBM/MBB
- DPDT snap action
- DPDT sequential
- DPDT center neutral
- 2NO or 2NC

Electrical rating
Measurements
( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ )
silver, gold
10 A (thermal)
AC15, A600; DC13, Q300
$103 \mathrm{~mm} \times 42,0 \mathrm{~mm} \times 42,0 \mathrm{~mm}$
[ $4.06 \mathrm{in} \times 1.65 \mathrm{in} \times 1.65 \mathrm{in}$ ]


CLC
EN 50047
IP66/IP67; NEMA 1, 4, 12, 13
$-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$

Features
positive-opening NC contacts
positive-opening NC contacts


| CLD | CLE | 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 |
| $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right]$ | $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right]$ | $-29^{\circ} \mathrm{C}$ to $71^{\circ} \mathrm{C}\left[-20^{\circ} \mathrm{F}\right.$ to $\left.160^{\circ} \mathrm{F}\right]$ <br> $-29^{\circ} \mathrm{C}$ to $120^{\circ} \mathrm{C}\left[-20^{\circ} \mathrm{F}\right.$ to $\left.298^{\circ} \mathrm{F}\right]$ (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: $0.5 \mathrm{in}-14 \mathrm{NPT}, 20 \mathrm{~mm}$, PG13.5, Deutsch-style connector (4-pin) | conduit: 0.5 in - $14 \mathrm{NPT}, 20 \mathrm{~mm}$, PG13.5, Deutsch-style connector (4-pin) | conduit: 0.5 in - 14NPT, $20 \mathrm{~mm}, \mathrm{PG13.5}$ | Termination |
| UL, CE, UKCA, CSA, CCC, IEC 60947-5-1, EN60947-5-1, UL508, UL746-C | UL, CE, UKCA, CSA, CCC, IEC 60947-5-1, EN60947-5-1, UL508 | LS: UL, CSA (select listings) LS-4: CE, UKCA (select listings) | Approvals |
| - 1NC 1NO SPDT snap action <br> - 1NC 1NO SPDT slow action, BBM/MBB <br> - 2NC <br> - 2NO | - 1NC 1NO SPDT snap action <br> - 1NC 1NO SPDT slow action, BBM/MBB <br> - 2NC 2NO DPDT snap action <br> - 2NC <br> - 2NO | SPDT double break, DPDT double break | Circuitry <br> (double break contacts) |
| silver, gold | silver, gold | silver | Contacts |
| 10 A (thermal) <br> AC15, A300; DC13, Q300 | 10 A (thermal) <br> AC15, A300; DC13, Q300 | LS: $10 \mathrm{~A}(125,250$ or 480 Vac$)$ LS-4:AC15,A300; DC13, P300 | Electrical rating |
| $\begin{aligned} & 84,05 \mathrm{~mm} \times 30,5 \mathrm{~mm} \times 32,6 \mathrm{~mm} \\ & {[3.31 \mathrm{in} \times 1.20 \mathrm{in} \times 1.28 \mathrm{in}]} \end{aligned}$ | $\begin{aligned} & 85,9 \mathrm{~mm} \times 65 \mathrm{~mm} \times 31,1 \mathrm{~mm} \\ & {[3.38 \mathrm{in} \times 2.56 \mathrm{in} \times 1.23 \mathrm{in}]} \end{aligned}$ | $\begin{aligned} & 102,9 \mathrm{~mm} \times 30,2 \mathrm{~mm} \times 28,7 \mathrm{~mm} \\ & {[4.05 \mathrm{in} \times 1.19 \mathrm{in} \times 1.13 \mathrm{in}]} \end{aligned}$ | Measurements $(H \times W \times D)$ |
| positive-opening NC contacts $\oplus$ | positive-opening NC contacts $\oplus$ | mode of operation is field adjustable; variety of operating characteristics; models in service for more than 60 years | Features |

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


| SERIES | NGC |
| :--- | :--- |
| Housing type | minature, metal and plastic options |
| Sealing | NEMA $1,4,12,13$; IP67 per IEC 60529 <br> suitable for outdoor applications |
| Temperature range | $-25^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}\left[-13^{\circ} \mathrm{F}\right.$ to $\left.167^{\circ} \mathrm{F}\right]$ |


| 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, panelmount cross roller plunger, panel-mount pin plunger with boot seal, top roller lever arm |
| Termination | - cable $0,75 \mathrm{~mm}^{2}$ ( 18 AWG ), <br> - PUR cable $0,75 \mathrm{~mm}^{2}$ ( 18 AWG), <br> - special application cable, $4 \& 5 \times 0,75 \mathrm{~mm}^{2}$ ( 18 AWG ) non-halogen, <br> - connector, 4-pin male, M12 thread, <br> - connector, 5-pin male, M12 thread, <br> - cable $0,50 \mathrm{~mm}^{2}$ (20 AWG) <br> - PUR cable, $0,50 \mathrm{~mm}^{2}$ (20 AWG) <br> - special application cable, 8 \& $9 \times 0,50 \mathrm{~mm}^{2}(20 \mathrm{AWG})$ non-halogen |
| Approvals | UL (UL508), cUL, CE (IEC 60947-5-1), UKCA, 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 datsheet) |
| Measurements $(H \times W \times D)$ | $\begin{aligned} & 55,8 \mathrm{~mm} \times 30 \mathrm{~mm} \times 16,7 \mathrm{~mm} \\ & {[2.2 \mathrm{in} \times 1.19 \mathrm{in} \times 0.66 \mathrm{in}]} \end{aligned}$ |

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 |
| minature | 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 |
| $0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ [ $35^{\circ} \mathrm{F}$ to $158^{\circ} \mathrm{F}$ ] <br> $-40^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right]$ low temp (optional) | $-20^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ [-40 F to $\left.158^{\circ} \mathrm{F}\right]$ (with no icing) | $-10^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[14^{\circ} \mathrm{F}\right.$ to $\left.158{ }^{\circ} \mathrm{F}\right]$ | Temperature range |
| zinc die-cast, epoxy coated | die-cast metal housing with glass-filled, flameretardant 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 gland
(cable diameter 5,8 mm to 9,6 mm)

Termination

| ```14CE: CE, UKCA, IEC947-5-1, EN60947-5-1 914CE:UL, CE, UKCA, CSA, IEC947-5-1, EN60947-5-1``` | CCC, CE, UKCA, 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 |
| $49 \mathrm{~mm} \times 40 \mathrm{~mm} \times 16 \mathrm{~mm}$ [1.93 in $\times 1.58$ in $\times 0.63$ in] | $\begin{aligned} & 64 \mathrm{~mm} \times 28,5 \mathrm{~mm} \times 25,7 \mathrm{~mm} \\ & 2.52 \mathrm{in} \times 1.12 \mathrm{in} \times 1.01 \mathrm{in} \end{aligned}$ | $\begin{aligned} & 59,8 \mathrm{~mm} \times 44,2 \mathrm{~mm} \times 18 \mathrm{~mm} \\ & {[2.35 \mathrm{in} \times 1.74 \mathrm{in} \times 0.71 \mathrm{in}]} \end{aligned}$ | Measurements $(H \times W \times D)$ |
| rugged metal housing; miniature size; pre-leaded or various quick-connect terminations; lowtemperature 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 |

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 <br> Housing type <br> Sealing Temperature range <br> Actuators/levers <br> Termination <br> Approvals

## E6

side mount
E6/V6-RQ:IP40; NEMA 1 E6/V6-RN: IP66; NEMA 1, 3, 4
$-32^{\circ} \mathrm{C}$ to $71^{\circ} \mathrm{C}\left[-25^{\circ} \mathrm{F}\right.$ to $\left.160^{\circ} \mathrm{F}\right]$
$-40^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right]$ low temp (optional)
zinc die-cast, epoxy coated
top pin plunger, maint. with reset plunger, wobble, top roller lever, top roller plunger, cross roller plunger, one-way roller lever
0.5 in - 14NPT (or NPSM) conduit, mini-connector, cable

UL, CSA, CE, UKCA
SPDT, DPDT
silver, gold
10 A, 15 A, 22 A @ 125, 250, or 480 Vac
EN 60947-5-1; IEC 60947-5-1;AC15, B300
$63,5 \mathrm{~mm} \times 25,4 \mathrm{~mm} \times 77,2 \mathrm{~mm}$
[ $2.50 \mathrm{in} \times 1.00 \mathrm{in} \times 3.04 \mathrm{in}$ ]


## V6

flange mount
E6/V6-RQ:IP40; NEMA 1
E6/V6-RN: IP66; NEMA 1, 3, 4
$-32^{\circ} \mathrm{C}$ to $71^{\circ} \mathrm{C}$ [-25 ${ }^{\circ} \mathrm{F}$ to $\left.160^{\circ} \mathrm{F}\right]$
$-40^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right]$ low temp (optional)
zinc die-cast, epoxy coated
top pin plunger, maint. with reset plunger, wobble, top roller lever, top roller plunger, cross roller plunger, one-way roller lever
0.5 in - 14NPT (or NPSM) conduit,
mini-connector, cable
UL, CSA, CE, UKCA
SPDT, DPDT
silver, gold
10 A, 15 A, 22 A @ 125, 250, or 480 Vac
EN 60947-5-1; IEC 60947-5-1; AC15, B300
$63,5 \mathrm{~mm} \times 25,4 \mathrm{~mm} \times 77,2 \mathrm{~mm}$
[2.50 in $\times 1.00 \mathrm{in} \times 3.04 \mathrm{in}$ ]

## 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 |
| $\begin{aligned} & \text { E7/V7-RQ: IP50 } \\ & \text { E7/V7-RN or RQN: IP65 } \end{aligned}$ | $\begin{aligned} & \text { E7/V7-RQ: IP50 } \\ & \text { E7/V7-RN or RQN: IP65 } \end{aligned}$ | Sealing |
| $-30{ }^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[22{ }^{\circ} \mathrm{F}\right.$ to $\left.158{ }^{\circ} \mathrm{F}\right]$ | $-30^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[22^{\circ} \mathrm{F}\right.$ to $\left.158{ }^{\circ} \mathrm{F}\right]$ | 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 <br> single or double conduit | $20 \mathrm{~mm}, \mathrm{PG} 13.5$ <br> single or double conduit | Termination |
| CE, UKCA | CE, UKCA | Approvals |
| SPDT, DPDT | SPDT, DPDT | Circuitry |
| silver | silver | Contacts |
| SPDT:AC15, A300; DC13, Q300 <br> 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: $45,3 \mathrm{~mm} \times 76,4 \mathrm{~mm} \times 25,4 \mathrm{~mm}$ [1.79 $\mathrm{in} \times 3.01 \mathrm{in} \times 1.00$ in] double conduit: $45,2 \mathrm{~mm} \times 84,6 \mathrm{~mm} \times 25,4 \mathrm{~mm}$ [1.78 in $\times 3.33 \mathrm{in} \times 1.00$ in] | Measurements $(H \times W \times D)$ |
| 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 |

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), UKCA | BX2 (1/2 NPT, $3 / 4$ NPT, 20 mm ): UL, cUL, ATEX, IEC Ex, NEPSI (China), KOSHA/KTL (Korea), IN METRO (Brasil), UKCA |
| Designations | NEMA 7, Div. 1 \& 2, Class I, Groups B, C, \& D NEMA 9, Div. 1 \& 2, Class II, Groups E, F, \& G \|| 2 G Exd IIC T6 Gb II 2 D Ex tb IIIC $\mathrm{T} 85^{\circ} \mathrm{CDb}$ | NEMA 7, Div. 1 \& 2, Class I, Groups B, C, \& D NEMA 9, Div. 1 \& 2, Class II, Groups E, F, \& G \|| 2 G Exd IIC T6 Gb \|I 2 DEx tb IIIC $85^{\circ} \mathrm{CDb}$ |
| 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 - 14 NPT conduit, 0.75 in - 14 NPT conduit, 20 mm conduit | conduit: 0.5 in - 14NPT, 0.75 in - 14NPT, 20 mm |
| Circuitry (double break contacts) | - 1NC 1NO SPDT snap action <br> - 2NC 2NO DPDT snap action <br> - 2NC 2NO DPDT snap action, center neutral <br> - 2NC 2NO DPDT snap action, sequential | - 1NC 1NO SPDT snap action <br> - 2NC 2NO DPDT snap action <br> - 2NC 2NO DPDT snap action, center neutral <br> - 2NC 2NO DPDT snap action, sequential |
| Operating temperature | $\begin{aligned} & -40^{\circ} \mathrm{C} \text { to } 70^{\circ} \mathrm{C} \\ & {\left[-40^{\circ} \mathrm{F} \text { to } 158^{\circ} \mathrm{F}\right]} \end{aligned}$ | $\begin{aligned} & -40^{\circ} \mathrm{C} \text { to } 70^{\circ} \mathrm{C} \\ & {\left[-40^{\circ} \mathrm{F} \text { to } 158^{\circ} \mathrm{F}\right]} \end{aligned}$ |
| Electrical rating | $\begin{aligned} & 10 \mathrm{~A} \text { (thermal) } \\ & \text { AC15, A600; DC13, R300 } \end{aligned}$ | $\begin{aligned} & 10 \mathrm{~A} \text { (thermal) } \\ & \text { AC15, A600; DC13, R300 } \end{aligned}$ |
| Measurements $(H \times W \times D)$ | $\begin{aligned} & 146,1 \mathrm{~mm} \times 76,2 \mathrm{~mm} \times 72,9 \mathrm{~mm}] \\ & {[5.75 \mathrm{in} \times 3.00 \mathrm{in} \times 2.87 \mathrm{in}]} \end{aligned}$ | $\begin{aligned} & 146,1 \mathrm{~mm} \times 76,2 \mathrm{~mm} \times 72,9 \mathrm{~mm}] \\ & {[5.75 \mathrm{in} \times 3.00 \mathrm{in} \times 2.87 \mathrm{in}]} \end{aligned}$ |
| 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

UL, CSA

GSX
cULus, ATEX, IEC Ex, KOSHA/KTL (Korea), IN METRO (Brasil), SIL3 capable

NEMA 9, Div. 1 \& 2, Class II, Groups E, F, \& G
|| 2 G; Exd |IC T6
II 2 D ; ExdtD A21 $\mathrm{T} 85^{\circ} \mathrm{C}$
IP67; NEMA 1, 3, 4, 6, 13
aluminum, epoxy coated
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
IP67; NEMA 1, 4, 12,13
aluminum, epoxy coated
side rotary, top pin plunger, top roller plunger, top roller lever

- 1NC 1NO SPDT snap action
- 2NC 2NO DPDT snap action
- 2NC 2NO DPDT snap action, center neutral
- 2NC 2NO DPDT snap action, sequential
$-12^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}\left[10^{\circ} \mathrm{F}\right.$ to $\left.250^{\circ} \mathrm{F}\right]$
$-40^{\circ} \mathrm{C}$ to $121^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.250^{\circ} \mathrm{F}\right]$ (optional)
10 A (thermal)
AC15, A600; DC13, R300
$146,1 \mathrm{~mm} \times 76,2 \mathrm{~mm} \times 72,9 \mathrm{~mm}]$
[5.75 in $\times 3.00 \mathrm{in} \times 2.87 \mathrm{in}$ ]
- 1NC 1NO snap action
- 2NC 2NO snap action
- 2NC slow action
- 2NO slow action
- 1NC
- 1NC 1NO BBM slow action
- 1NC 1NO MBB slow action
- 1NC 1NO
- 2NC 1NO BBM slow action
- 2NC 2NO BBM slow action
- 3NC 1NO BBM slow action
- 4NC slow action

| $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ | $-1^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ | Operating <br> $\left[-40^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right]$ |
| :--- | :--- | :--- |
| $\left[-30^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right]$ | temperature |  |

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

10 A thermal electrical rating; variety of actuators and circuitry options; silver or gold contacts; field adjustable to meet various application needs
adjustable to meet various application needs

CLSX
UL, CSA

NEMA 7, Div. 1 \& 2, Class I, Groups B, C, \& D NEMA 9, Div. 1 \& 2, Class II, Groups E, F, \& G

## SERIES

## Approvals

## Designations

| NEMA $1,3,4,13$ | Sealing |
| :--- | :--- |
| aluminum, epoxy coated | Housing <br> material |

cable/rope pull, maintained
Actuators/levers

Circuitry (double break contacts) -

## HAZARDOUS AREA <br> LIMIT <br> SWITCHES


Termination
Circuitry $\quad$ 1NC 1NO SPDT maintained;

| Series | $\mathbf{E X}$ |
| :--- | :--- |
| Approvals | UL, CSA, ATEX (CE), UKCA, IEC Ex, IN METRO (Brasil) |


|  |  |
| :--- | :--- |
|  |  |
|  |  |
| DemA 7, Div. 1 \& 2, Class I, Groups B, C, \& D (select catalog listings) |  |
| Designations | NEMA 9, Div. 1 \& 2, Class II, Groups E, F, \& G |
|  | II G; EEx d IIB + H2 T6 |

Sealing NEMA 1
Housing $\quad$ aluminum, epoxy coated
material

Actuators/levers side rotary, top pin plunger, top roller plunger, manual
0.5 in - 14NPT conduit, lead wires

1NC 1NO SPDT snap action;

| Operating | $-40^{\circ} \mathrm{C}$ to $71^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.160^{\circ} \mathrm{F}\right]$ |
| :--- | :--- |
| temperature | $-40^{\circ} \mathrm{C}$ to $204^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.400^{\circ} \mathrm{F}\right]$ optional EXHT catalog listing |
| (standard) |  |

NEMA 9, Div. 1 \& 2, Class II, Groups E, F, \& G
2 G; EEx dIIB + H2 T6

1NC 1NO SPDT maintained;
2NC 2NO DPDT snap action
$-40^{\circ} \mathrm{C}$ to $71^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.160^{\circ} \mathrm{F}\right]$
$-40^{\circ} \mathrm{C}$ to $204^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.400^{\circ} \mathrm{F}\right]$ optional EXHT catalog listing

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.

Electrical rating $\quad 1 \mathrm{~A}, 10 \mathrm{~A}, 15 \mathrm{~A}, 20 \mathrm{~A}$

## Measurements

( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ )
$65,0 \mathrm{~mm} \times 93,0 \mathrm{~mm} \times 51,3 \mathrm{~mm}$
[2.56 in $\times 3.66$ in $\times 2.02 \mathrm{in}$ ]


## VPX

cULus, ATEX, IEC Ex, CE, UKCA, KOSHA/KTL (Korea), NEPSI, SIL3 capable

## snap-action switches:

|| 2 G, II 2 D (ATEX Rating) Ex db IIC T6 Gb (Gas) Ex tb IIIC $785^{\circ} \mathrm{CDb}$ (Dust) Ta $-40^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ (Switch Code 4A or 4B)
Ta $-40^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$ (Switch Code 2A or 2B)

## proximity switches:

|| 1 G, II 1 D (ATEX Rating)
Ex ia IIC T4 Ga (Gas)
Exia IIIC T135 ${ }^{\circ} \mathrm{CDa}$ (Dust)
Ta $-40^{\circ} \mathrm{C}$ to $80^{\circ} \mathrm{C}$

IP66 per IEC 60079-0;
IP67 per IEC 60529 (self-certified by Honeywell)
NEMA 4, 4X, 6, and 13 per UL 50E
aluminum with protective paint finish

```
indicator shafts: NAMUR, \(1 / 4\) in flats, Knurl
```

conduit: 1/2-14 NPT, 3/4-14 NPT,
$\mathrm{M} 20 \times 1.5, \mathrm{M} 25 \times 1.5$
4 EM switches: $-40^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.122^{\circ} \mathrm{F}\right]$
2 EM switches: $-40^{\circ} \mathrm{C}$ to $60^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.140^{\circ} \mathrm{F}\right]$
Proximity switches: $-40^{\circ} \mathrm{C}$ to $80^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.176^{\circ} \mathrm{F}\right]$
snap-action switches:

| UL: 15 A 150 Vac |  |
| :--- | :--- |
| 10 A 250 Vac | proximity switches: |
| 0.5 A 250 Vdc | switch element function: NAMUR, NC |
| CE/UKCA: 16 A 250 Vac | Nominal voltage: 8.2 V |
| 0.5 A 250 Vdc | Current cons. (On) 1 mA |
|  | Current cons. (Off) $\geq 3 \mathrm{~mA}$ |

$152,3 \mathrm{~mm} \mathrm{H} \times 140 \mathrm{~mm} \mathrm{~W} \times 140 \mathrm{~mm} \mathrm{D}$
[6.0 in Hx 5.5 in W x 5.5 in D] ref.
smallest metal housing intended for indoor applications; ample wiring
Features space; mounts from any of four sides; used in temperature range of $-40^{\circ} \mathrm{C}$ to $71^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.160^{\circ} \mathrm{F}\right]$; 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


CXA
CXE
14CE100
Series
CX
UL, CSA, ATEX (CE), UKCA, IN
METRO, IEC Ex (consult factory for
applicable listings)

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
$\| 2$ G: EEx d IIC T6
$\| 2 \mathrm{D}$ : ExtD A21 $\mathrm{T} 85^{\circ} \mathrm{C}$
|| 2 G; EEx d IIC T6
|| 2 G; Exd IIC T6
II 2 D ; ExtD A21 $\mathrm{T} 85^{\circ} \mathrm{C}$
II 2 D ; ExtD A21 T85 ${ }^{\circ} \mathrm{C}$

## Designations

|| 2 G; Exd IIC T6
II 2 D; ExdtD A21 T85 ${ }^{\circ} \mathrm{C}$

| \|P66; <br> NEMA 1, 3, 4, 4X, 6, 6P, 13 | IP66 | IP66 | $\begin{aligned} & \text { IP65 } \\ & \text { IP66 (select catalog listings) } \end{aligned}$ | 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/6N0 | 1NC 1NO SPDT snap action | 1NC 1NO SPDT snap action | 1NC 1NO SPDT snap action | Circuitry |

$-25^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-13{ }^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$
$-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$
(ontional)
$-20^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}$
$\left[-4^{\circ} \mathrm{F}\right.$ to $\left.167^{\circ} \mathrm{F}\right]$
$-20^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}$
[-4 ${ }^{\circ} \mathrm{F}$ to $167^{\circ} \mathrm{F}$ ]
$0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$
[ $32^{\circ} \mathrm{F}$ to $158^{\circ} \mathrm{F}$ ]
Operating
[-4 ${ }^{\circ} \mathrm{F}$ to $167^{\circ} \mathrm{F}$ ]
[32 ${ }^{\circ}$ to $158^{\circ} \mathrm{F}$ ]
temperature
(standard)
$1 \mathrm{~A}, 10 \mathrm{~A}, 15 \mathrm{~A}, 20 \mathrm{~A}$
AC15, $4 \mathrm{~A}, 250 \mathrm{~V}$;
AC15, 4 A, 250 V ;
DC13, 0.15 A, 250 V
AC14, D300; DC13, R300
Electrical rating
short cover: $101,6 \mathrm{~mm} \times 101,6$ $\mathrm{mm} \times 104 \mathrm{~mm}$ [4.00 in $\times 4.00 \mathrm{in} \mathrm{x}$ $4.09 \mathrm{in}]$
standard cover: $101,6 \mathrm{~mm} \times 101,6$
$\mathrm{mm} \times 145,0 \mathrm{~mm}[4.00 \mathrm{in} \times 4.00 \mathrm{in}$ $\times 5.71 \mathrm{in}]$
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
$103 \mathrm{~mm} \times 42,0 \mathrm{~mm} \times$
$42,0 \mathrm{~mm}[4.06 \mathrm{in} \times 1.65 \mathrm{in}$
$\times 1.65 \mathrm{in}$ ]
$85,9 \mathrm{~mm} \times 65 \mathrm{~mm} \times 30,0 \mathrm{~mm}$ [3.38 in $\times 2.56 \mathrm{in} \times 1,18 \mathrm{in}$ ]
$49,0 \mathrm{~mm} \times 40,0 \mathrm{~mm} \times 16,0 \mathrm{~mm}$ [1.93 in $\times 1.57$ in $\times 0.63 \mathrm{in}$ ]

## Measurements ( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ )

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

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.

| SERIE |
| :--- |
| Attributes |
| Potential |
| Housing |
| Approvals |
| Sealing |
| Contacts |
| Circuitry | contacts, except FF and FFS)

rugged, sealed, large wiring cavity; indicators; wide temperature tolerance; longest span available (up to 500 feet/ 152 m on dual head 2CPS)

1CPS: $178,2 \mathrm{~mm} \times 99,1 \mathrm{~mm} \times 65,3 \mathrm{~mm}$
[6.8 in $\times 3.9 \mathrm{in} \times 2.57 \mathrm{in}$ ]
2CPS: $152,4 \mathrm{~mm} \times 165,1 \mathrm{~mm} \times 84,1 \mathrm{~mm}$ [ 6.0 in $\times 6.5$ in $\times 3.31 \mathrm{in}$ ]
hazardous location and positive-break safety switch with cULus, ATEX, IEC Ex, IN METRO approvals
$154,2 \mathrm{~mm} \times 76,2 \mathrm{~mm} \times 72 \mathrm{~mm}$ [6.07 in $\times 3.00 \mathrm{in} \times 2.84 \mathrm{in}$ ]

10 A (thermal); AC15, A300; DC13, Q300
optional hardware packs; heavy-duty terminals: gold contacts; positive opening of NC contacts (up to 4 contacts); LED status lights; positive opening NC contacts

## $-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right]$

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)

## Features

## $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$

10 A (thermal); AC15, A300; DC13, Q300
optional hardware packs; large wiring cavity; easy-to-read cable tension windows; improved LEDs for cable status; positive opening NC contacts


## 2CCP

single/dual head cable pull designed to provide emergency stop protection; often used for exposed conveyor and assembly lines along with material handling
conveyor applications, perimeter guard
epoxy-coated aluminum housing; plastic face
UL, cUL, CE, UKCA, SIL 3 capable

IP54; NEMA 1


CPS/2CPS
single/dual head cable pull designed to provide emergency stop protection; often used for exposed conveyor and assembly lines
conveyor applications, perimeter guard
zinc, epoxy coated

UL, CSA, CE, UKCA, SIL 3 capable
IP67; NEMA 1, 4, 12, 13
silver, gold

- 1NC 1NO snap action
- 1NC 1NO slow action BBM
- 1NC 1NO slow action MBB
- 2NC slow action
- 2NC 2NO snap action
- 4NC slow action
- 2NC 1NO slow action BBM
- 2NC 2NO slow action BBM
- 3NC 1NO slow action BBM
- 1NC 1NO
- 2NC 2NO
- 3NC 1NO
- 4NC


CSX
switch characteristics to EN50041, heavyduty metal body, explosion-proof safety switch designed for hazardous area applications
gates, doors, access panels, cages
aluminum, epoxy coated
cULus, ATEX, UKCA, IEC Ex, IN METRO (Brasil) SIL 3 capable

IP67; NEMA 1, 4, 6, 12, 13

1NC 1 NO snap action
$\qquad$

- 1NC 1NO
- 2NC 2NO
- 3NC 1NO
wide temperature tolerance to avoid nuisance trips, redesigned bright LEDs to indicate cable status
$127,0 \mathrm{~mm} \times 187,0 \mathrm{~mm} \times 60,0 \mathrm{~mm}$ [ $5.0 \mathrm{in} \times 7.34 \mathrm{in} \times 2.35 \mathrm{in}$ ]



## 24CE/924CE

miniature, compact die-cast zinc housing construction with a wide variety of actuators, IEC945-5-1, EN60947-5-1
small doors and apertures
zinc, epoxy coated
24CE. CE

24CE: CE, UKCA;
924CE: UL, CE, UKCA, SIL 3 capable
IP66
silver

## FF AND FFS

non-contact safety switches either magnetically operated or by electronically coded magnets providing high degree of tamper-resistant, reliable operation

| medium/large doors and apertures |
| :--- |
| glass-filled polyester, zinc epoxy coated |
| UL, CSA, CE, UKCA, SIL 3 capable |

metal: IP66; NEMA 1, 4, 12, 13
plastic: IP66/IP67; NEMA 1, 4 (indoor), 12, 13
silver, gold

EN50041

- 1NC 1NO snap action
- 1NC 1NO slow action BBM
- 1NC 1NO slow action MBB
- 2NC slow action
- 2NC 2NO snap action
- 4NC slow action
- 2NC 1NO slow action BBM
- 2NC 2NO slow action BBM
- 3NC 1NO slow action BBM

EN50047

- 1NC 1NO snap action
- 1NC 1NO slow action BBM
- 1NC 1NO slow action MBB
- 2NC slow action
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 $\sim 6 \mathrm{~mm}$ to 20 mm ); sealed, compact and rugged design

SERIES

Attributes

Potential applications
Housing
Approvals
Sealing
Contacts

| $\begin{aligned} & 83,0 \mathrm{~mm} \times 30,5 \mathrm{~mm} \times 30,0 \mathrm{~mm} \\ & {[3.27 \mathrm{in} \times 1.20 \mathrm{in} \times 1.18 \mathrm{in}]} \end{aligned}$ | $\begin{aligned} & 49,0 \mathrm{~mm} \times 40,0 \mathrm{~mm} \times 16,0 \mathrm{~mm} \\ & {[1.93 \mathrm{in} \times 1.57 \mathrm{in} \times 0.63 \mathrm{in}]} \end{aligned}$ | $\begin{aligned} & 87 \mathrm{~mm} \times 24 \mathrm{~mm} \times 19 \mathrm{~mm} \\ & {[3.43 \mathrm{in} \times 0.95 \mathrm{in} \times 0.75 \mathrm{in}]} \end{aligned}$ | Measurements (less <br> levers) H xW x D |
| :---: | :---: | :---: | :---: |
| $-25^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-13{ }^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$ <br> $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$ (side rotary operating heads) | $0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[32^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right]-40^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[-40^{\circ} \mathrm{F}\right.$ to $\left.158^{\circ} \mathrm{F}\right]$ (optional) | $\begin{aligned} & -10{ }^{\circ} \mathrm{C} \text { to } 55^{\circ} \mathrm{C} \\ & {\left[14^{\circ} \mathrm{F} \text { to } 131^{\circ} \mathrm{F}\right]} \end{aligned}$ | 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 |



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 | CK | CK= |
| :---: | :---: | :---: |
| 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, UKCA, SIL 3 capable | cULus, CE, UKCA, 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 <br> (double break contacts) | - 1NC 1 NO snap action <br> - 2NC 2NO snap action <br> - 1NC 1NO slow action BBM <br> - 1NC 1 NO slow action MBB <br> - 2NC 1 NO slow action BBM <br> - 2NC 2NO slow action BBM <br> - 3NC 1NO slow action BBM <br> - 2NC slow action <br> - 4NC slow action | - 1NC 1 NO snap action <br> - 1NC 1NO slow action BBM <br> - 2NC slow action |
| 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 | $121,6 \mathrm{~mm} \times 42 \mathrm{~mm} \times 42,6 \mathrm{~mm}$ [1.79 in $\times 1.652$ in $\times 1.68 \mathrm{in}$ ] | $95,7 \mathrm{~mm} \times 30,5 \mathrm{~mm} \times 32,9 \mathrm{~mm}$ <br> [ 3.77 in $\times 1.20$ in $\times 1.30 \mathrm{in}$ ] |
| Temperature | $-25^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-13^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$ | $-25^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ [-13 ${ }^{\circ} \mathrm{F}$ to $\left.185^{\circ} \mathrm{F}\right]$ |
| 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


| CKM | CKN | SERIES |
| :--- | :--- | :--- |
| most compact key-operated safety product available; fully sealed construc- <br> tion | common footprint safety switch for multiple applicability; multiple contacts, <br> 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, UKCA, SIL 3 capable | cULus, CE, UKCA, 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 |

- 1NC 1NO BBM
- 2NC 1NO slow action BBM


## Circuitry

-3NC slow action

## (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

| $69,4 \mathrm{~mm} \times 34,0 \mathrm{~mm} \times 16,0 \mathrm{~mm}$ | $90,0 \mathrm{~mm} \times 64,0 \mathrm{~mm} \times 30,0 \mathrm{~mm}$ | Measurements (less <br> $[2.73 \mathrm{in} \times 1.34 \mathrm{in} \times 0.63 \mathrm{in}]$ |
| :--- | :--- | :--- |
| $-25^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}\left[-13^{\circ} \mathrm{F}\right.$ to $\left.185^{\circ} \mathrm{F}\right]$ | $-25^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left[-13^{\circ} \mathrm{Fto} 158^{\circ} \mathrm{F}\right]$ | levers) $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ |

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

## Differentiator

Measurements (less evers) HxWxD

Electrical rating
$\oplus$

## Features

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 callbacks, and simplified wiring and installation.


DOOR INTERLOCK

## Description

Use

| Housing |
| :--- |
| Approvals |
| Voltage |
| Connection |

## Measurements

 ( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ )Features

## RELIALIGN™ RDI SERIES

door interlock for residential swing-style doors, elevators, and vertical lifts. available with metal housing

In the USA: residential swing door applications, specifically dumbwaiters, lifts for the mobility impaired, and swing-door elevators
In Canada: residential swing door applications, specifically elevators and dumbwaiters
metal (white and architectural bronze)
compliant to ASME A17.1 and UL 104
$24 \mathrm{Vdc} ; 24 \mathrm{Vac}$
terminal strip or cat 5 available
$247,65 \mathrm{~mm} \times 51,44 \mathrm{~mm} \times 49,23 \mathrm{~mm}$
[9.75 in $\times 2.025$ in $\times 1.938 \mathrm{in}$ ]
two separate mechanisms to indicate door closure; metal key; internal solenoid control; no open or exposed contacts; configurable product platform

## RELIALIGN ${ }^{T M}$ CDI SERIES

door interlock for commercial swing-style doors, elevators, and vertical lifts. available with metal housing

In the USA: swing door applications, specifically dumbwaiters, material lifts, lifts for the mobility impaired and private residence swing-door elevators
In Canada: swing door applications, specifically dumbwaiters, material lifts, and residential elevators
metal (white)
compliant to ASMEA17.1, ASMEA18.1, cULus, and CAN/CSA B44
$24 \mathrm{Vac} / \mathrm{Vdc}, \pm 5 \%$
terminal strip or cat 5 available
$247,65 \mathrm{~mm} \times 51,44 \mathrm{~mm} \times 49,23 \mathrm{~mm}$
[9.75 in $\times 2.025$ in $\times 1.938 \mathrm{in}$ ]
long life of 1 million operations minimum; exceeds commercial pull force standard of 675 pound pull force by 2 X

## 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 Advanced Sensing Technologies services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing, or the nearest Authorized Distributor, visit sps.honeywell.com/ast or call:

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