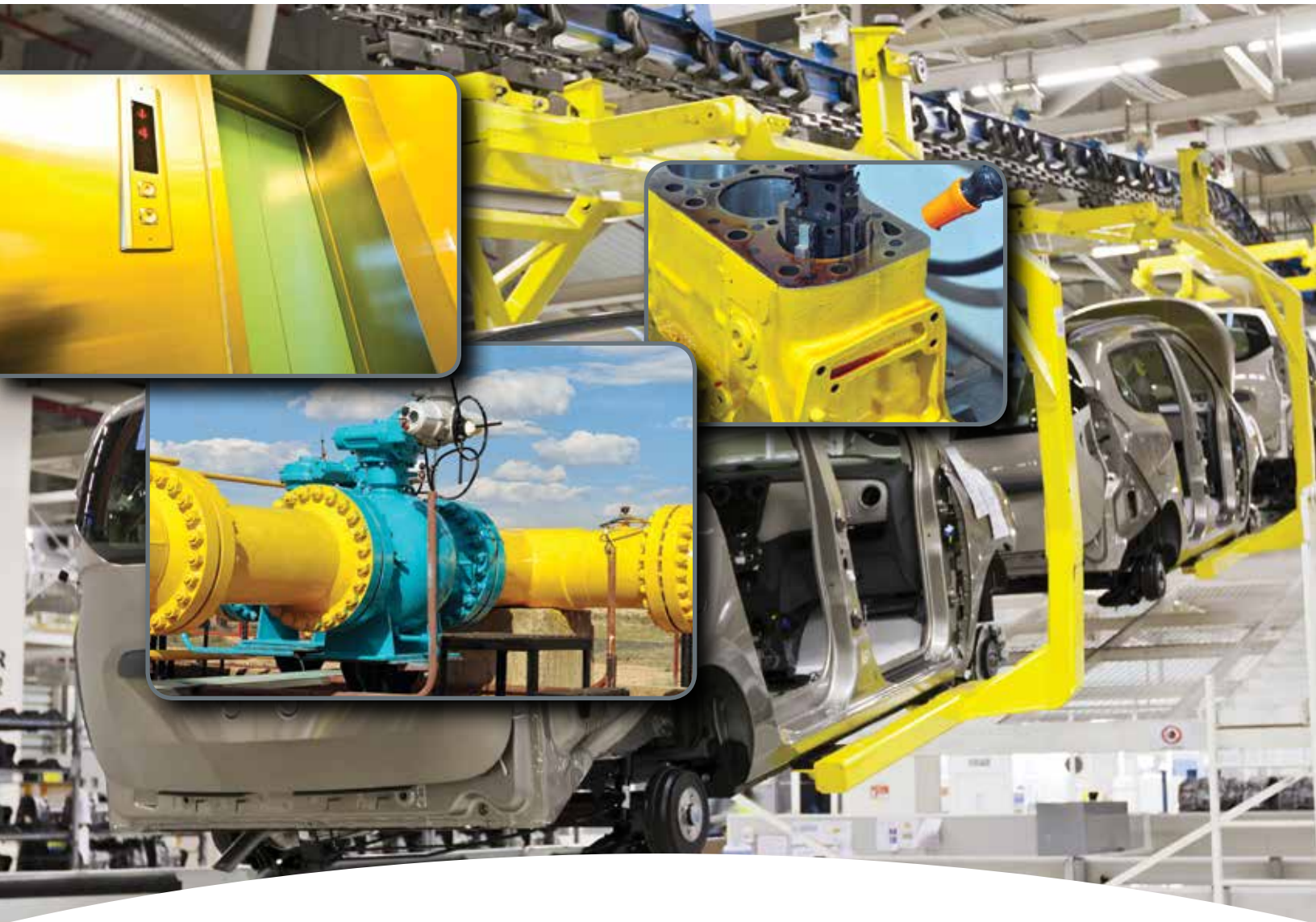




**MICRO SWITCH™**  
**General Purpose Limit Switches**  
**SZL-WL Series**



# MICRO SWITCH™ SZL-WL Series

## General Purpose Limit Switches

MICRO SWITCH™ SZL-WL Series general purpose limit switches are cost effective switches that may be used in a wide range of applications from general purpose conveyors to heavy-duty machinery. Rugged and reliable, the SZL-WL Series switches are specially designed for world-wide use and supported by Honeywell's vast experience in serving industries around the globe.

High quality product offerings combined with Honeywell's global sales and service resources makes the SZL-WL Series the smart choice for industries whose goal is to minimize plant downtime and reduce overall maintenance costs.

### *What makes our switches better?*

- Small size and universal mounting footprint typically allows for use in constricted spaces and reduces replacement costs by providing interchangeability with similar style switches
- Wide variety of actuator heads and an assortment of actuators typically allows the SZL-WL Series to be applied in many types of applications
- IP67 construction often allows for use in dusty and dirty indoor and outdoor applications
- Mechanical service life of up to 10,000,000 operations promotes the durability required for use in many types of industries from factory floor to agriculture and/or machinery



COST OPTIMIZATION • EASE OF USE  
RELIABILITY • GLOBAL ACCEPTANCE

# Features and Benefits

## INDUSTRIAL GLOBAL DESIGN

The SZL-WL Series is designed to the EN50041 mounting standard which promotes interchangeability between other brands of limit switches.

***Robust and reliable.***

## TWO CIRCUIT DOUBLE BREAK CONTACTS

The SZL-WL Series promotes reliable switching under industrial 10 amp current loads and typically allows end users the ability to control two circuits within one switch.

## WIDE CHOICE OF ACTUATORS

Honeywell's SZL-WL Series offers side rotary, top and side plunger, and wobble stick style actuators that makes the switch reasonably adaptable to numerous types of applications.

## OIL TIGHT, WATER TIGHT, DUST TIGHT

IP67 sealing protects against dust and moisture, and allows the SZL-WL Series to be used in dirty and rugged environments found in both indoor and outdoor applications.

## Potential Applications



### INDUSTRIAL

- Counting and position sensing on conveyors and assembly lines
- Fixture and tooling position sensing on automated metal removing machines
- Position indication on electric valves on pipelines
- Position indication on dampers, fume hoods, and HVAC/R equipment
- Truck ramp position and elevator car position/leveling control



# SZL-WL Series

## PRODUCT NOMENCLATURE

Figure 1. SZL-WL for Asia-Pacific Use Only

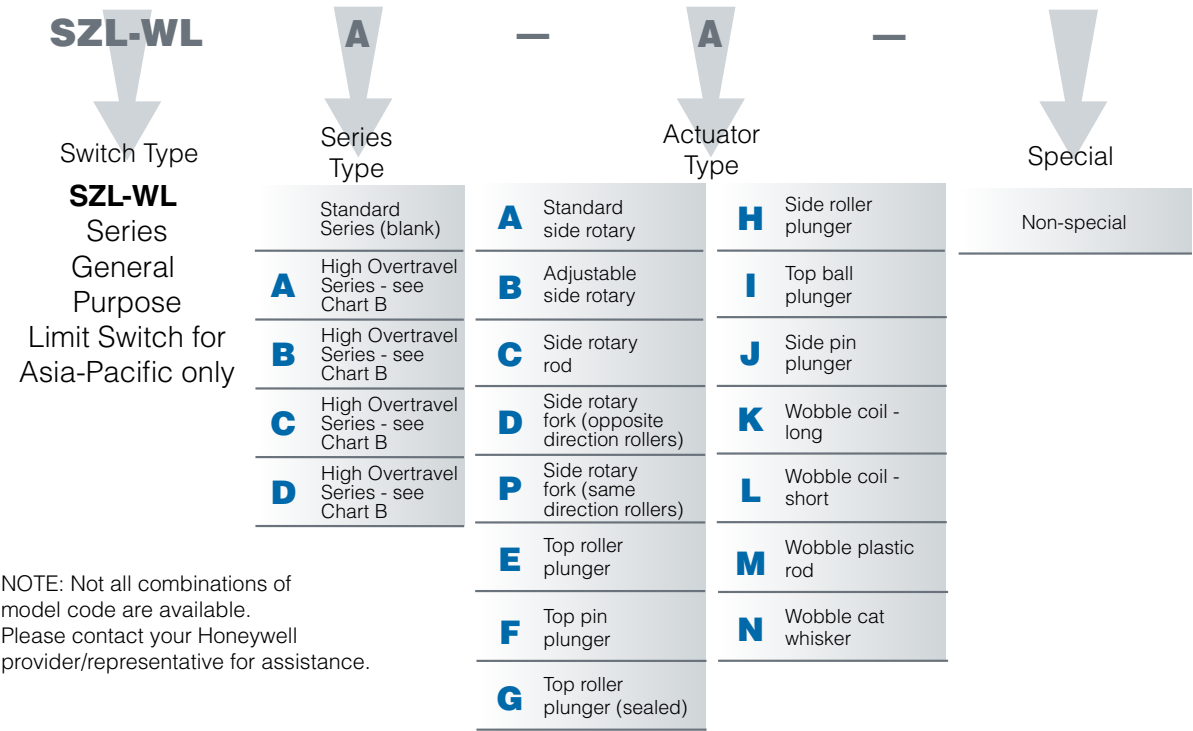
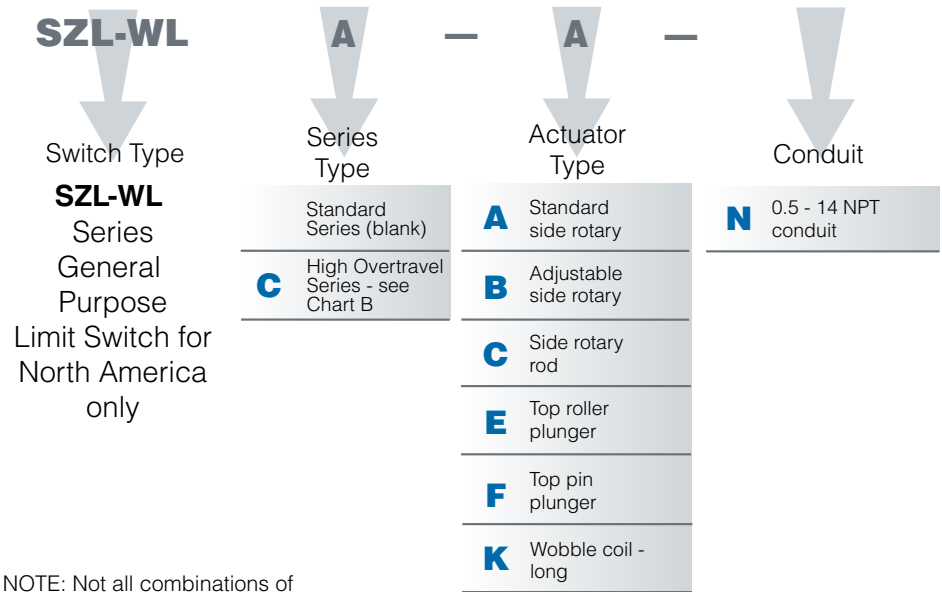


Figure 2. SZL-WL for North American Use Only



# MICRO SWITCH™ General Purpose Limit Switches

**Table 1. Chart A • Standard Type**

|                     | WL-A                   | WL-B <sup>1</sup>      | WL-C <sup>2</sup>        | WL-D, P                 | WL-E                      | WL-F                      | WL-G                         |
|---------------------|------------------------|------------------------|--------------------------|-------------------------|---------------------------|---------------------------|------------------------------|
| Pretravel           | 15° ±5°                | 15° ±5°                | 15° ±5°                  | 50° ±5°                 | 1,7 mm [0.07 in]<br>max.  | 1,7 mm [0.07 in]<br>max.  | 1,7 mm [0.07 in]<br>max.     |
| Differential Travel | 12°                    | 12°                    | 12°                      | –                       | 1 mm [0.04 in]            | 1 mm [0.04 in]            | 1 mm [0.04 in]               |
| Overtravel          | 30°                    | 30°                    | 30°                      | 35°                     | 5,6 mm [0.22]             | 6,4 mm [0.25]             | 5,6 mm [0.22]                |
| Total travel        | 40°                    | 40°                    | 40°                      | 90°                     | –                         | –                         | –                            |
| Operating torque    | 0,51 Nm<br>[4.5 in-lb] | 0,51 Nm<br>[4.5 in-lb] | 0,195 Nm<br>[1.72 in-lb] | 0,447 Nm<br>[4.0 in-lb] | 26,67 N [6 lb]<br>(force) | 26,67 N [6 lb]<br>(force) | 16,67 N [3.75 lb]<br>(force) |

|                      | WL-H                | WL-I                        | WL-J                        | WL-K <sup>3</sup>                   | WL-L <sup>3</sup>                   | WL-M <sup>3</sup>                  | WL-N <sup>3</sup>                  |
|----------------------|---------------------|-----------------------------|-----------------------------|-------------------------------------|-------------------------------------|------------------------------------|------------------------------------|
| Pretravel            | 2,8 mm<br>[0.11 in] | 1,7 mm<br>[0.07 in]<br>max. | 2,8 mm<br>[0.11 in]<br>max. | 20 mm ±10 mm<br>[0.79 in ±0.039 in] | 20 mm ±10 mm<br>[0.79 in ±0.039 in] | 40 mm ±20 mm<br>[1.57 in ±0.79 in] | 40 mm ±20 mm<br>[1.57 in ±0.79 in] |
| Differential travel  | 1 mm<br>[0.04 in]   | 1 mm<br>[0.04 in]           | 1 mm<br>[0.04 in]           | –                                   | –                                   | –                                  | –                                  |
| Overtravel           | 5,6 mm<br>[0.22 in] | 6,4 mm<br>[0.25 in]         | 4,0 mm<br>[0.16 in]         | –                                   | –                                   | –                                  | –                                  |
| Total travel         | 8,4 mm<br>[0.33 in] | 9,2 mm<br>[0.36 in]         | 5,7 mm<br>[0.22 in]         | –                                   | –                                   | –                                  | –                                  |
| Operating force max. | 40,03 N<br>[9 lb]   | 26,67 N<br>[6 lb]           | 40,03 N<br>[9 lb]           | 1,47 N [0.33 lb]                    | 1,47 N [0.33 lb]                    | 1,47 N [0.33 lb]                   | 0,28 N [0.06 lb]                   |

<sup>1</sup> Operating characteristics of the WL-B are measured at the arm length of 38 mm [1.5 in]

<sup>2</sup> Operating characteristics of the WL-C are measured at the lever length of 140 mm [5.5 in]

<sup>3</sup> Operating characteristics of these types are measured at the tip of the actuator

**Table 2. Chart B • Overtravel/High Precision Type**

|                       | WLA-A                  | WLB-A                  | WLA-B <sup>1</sup>     | WLB-B <sup>1</sup>     | WLA-C <sup>2</sup>       | WLB-C <sup>2</sup>       | WLC-A                  |
|-----------------------|------------------------|------------------------|------------------------|------------------------|--------------------------|--------------------------|------------------------|
| Pretravel             | 18° ±4°                | 10° (-1°/+2°)          | 18° ±4°                | 10° (-1°/+2°)          | 18° ±4°                  | 10° (-1°/+2°)            | 25° ±5°                |
| Differential travel   | 10°                    | 7°                     | 10°                    | –                      | 10°                      | 7°                       | 16°                    |
| Overtravel            | 55°                    | 65°                    | 55°                    | 65°                    | 55°                      | 65°                      | 60°                    |
| Total travel          | 80°                    | 80°                    | 80°                    | 80°                    | 80°                      | 80°                      | 90°                    |
| Operating torque max. | 0,37 Nm<br>[3.3 in-lb] | 0,37 Nm<br>[3.3 in-lb] | 0,37 Nm<br>[3.3 in-lb] | 0,37 Nm<br>[3.3 in-lb] | 0,398 Nm<br>[3.52 in-lb] | 0,398 Nm<br>[3.52 in-lb] | 0,34 Nm<br>[3.0 in-lb] |

|                       | WLC-B <sup>1</sup>     | WLC-C <sup>2</sup>      | WLD-A                    | WLD-B <sup>1</sup>       | WLD-C <sup>2</sup>       | WLE-A                  | WLE-B                  | WLE-C                    |
|-----------------------|------------------------|-------------------------|--------------------------|--------------------------|--------------------------|------------------------|------------------------|--------------------------|
| Pretravel             | 25° ± 5°               | 25° ± 5°                | 20° max.                 | 20° max.                 | 20° max.                 | 6° ±1°                 | 5° (+2°/-0°)           | 5° (+2°/-0°)             |
| Differential travel   | 16°                    | 16°                     | 10°                      | 10°                      | 10°                      | 3°                     | 3°                     | 3°                       |
| Overtravel            | 60°                    | 60°                     | 70°                      | 70°                      | 70°                      | 40°                    | 40°                    | 40°                      |
| Total travel          | 90°                    | 90°                     | 90°                      | 90°                      | 90°                      | 40°                    | 40°                    | 40°                      |
| Operating torque max. | 0,34 Nm<br>[3.0 in-lb] | 0,36 Nm<br>[3.16 in-lb] | 0,365 Nm<br>[3.23 in-lb] | 0,365 Nm<br>[3.23 in-lb] | 0,398 Nm<br>[3.52 in-lb] | 0,51 Nm<br>[4.5 in-lb] | 0,51 Nm<br>[4.5 in-lb] | 0,195 Nm<br>[1.72 in-lb] |

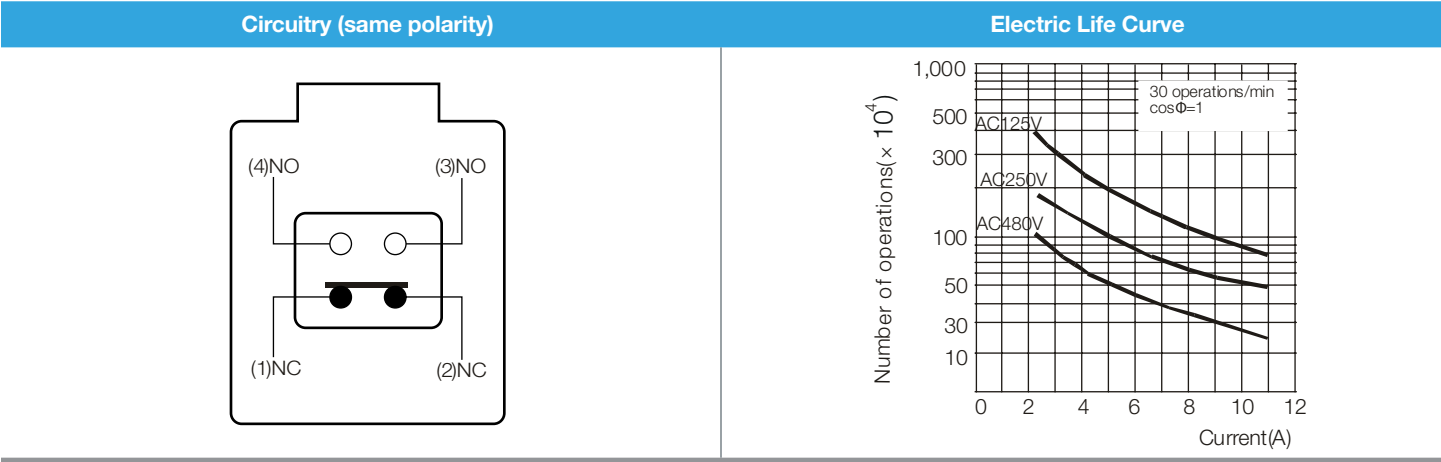
<sup>1</sup> Operating characteristics are measured at the arm length of 38 mm [1.5 in]

<sup>2</sup> Operating characteristics are measured at the lever length of 140 mm [5.5 in]

# SZL-WL Series

Table 3. Specifications

| Characteristic                 | Parameter                                                                                                                                                                                    |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product type                   | Honeywell General Purpose Limit Switch                                                                                                                                                       |
| Actuators                      | side rotary, top roller plunger, top plunger, sealed top roller plunger, side roller plunger, side pin plunger, top ball plunger, wobble/cat whisker, wobble/plastic rod, wobble/coil spring |
| Circuitry                      | single pole double throw double break                                                                                                                                                        |
| Electrical                     | 10 A                                                                                                                                                                                         |
| Housing material               | aluminum die-cast                                                                                                                                                                            |
| Housing type                   | industrial                                                                                                                                                                                   |
| Conduit                        | PF 1/2, 1/2 in-14 NPT                                                                                                                                                                        |
| Sealing                        | IP67                                                                                                                                                                                         |
| Operating temperature          | -10 °C to 80 °C [14 °F to 176 °F]                                                                                                                                                            |
| Mechanical life                | 10,000,000 operations                                                                                                                                                                        |
| Agency approvals and standards | UL, CE, CSA                                                                                                                                                                                  |
| Sealed                         | Industrial                                                                                                                                                                                   |

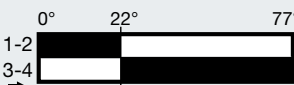
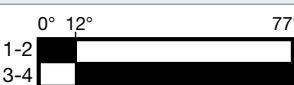
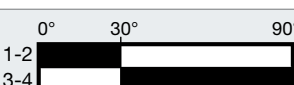


# MICRO SWITCH™ General Purpose Limit Switches

## ORDER GUIDE/RECOMMENDED LISTINGS

Table 4. Product listings

O.T. • Operating torque  
O.F. • Operating force  
P.T. • Pretravel  
O.T. • Overtravel  
D.T. • Differential travel

|                                                                                    | Part Number        | Actuation                                   | Note | O.T.<br>Nm<br>[in-lb] | Bar chart                                                                            | P.T.<br>(max.) | O.T. | D.T.<br>(max.) | Conduit    |
|------------------------------------------------------------------------------------|--------------------|---------------------------------------------|------|-----------------------|--------------------------------------------------------------------------------------|----------------|------|----------------|------------|
|  | <b>SZL-WL-A</b>    | side rotary standard lever, standard        | —    | 0,51<br>[4.5]         |    | 20°            | 30°  | 12°            | PF 1/2     |
|                                                                                    | <b>SZL-WL-A-N</b>  |                                             |      |                       |    |                |      |                | 1/2 in NPT |
|                                                                                    | <b>SZL-WLA-A</b>   | side rotary standard lever, high overtravel | —    | 0,37<br>[3.3]         |    | 22°            | 55°  | 10°            | PF 1/2     |
|                                                                                    | <b>SZL-WLB-A</b>   | side rotary standard lever, high overtravel | —    | 0,37<br>[3.3]         |    | 12°            | 65°  | 7°             | PF 1/2     |
|                                                                                    | <b>SZL-WLC-A</b>   | side rotary standard lever, high overtravel | —    | 0,34<br>[3.0]         |    | 30°            | 60°  | 16°            | PF 1/2     |
|                                                                                    | <b>SZL-WLC-A-N</b> |                                             |      |                       |    |                |      |                | 1/2 in NPT |
|                                                                                    | <b>SZL-WLD-A</b>   | side rotary standard lever, high overtravel | —    | 0,37<br>[3.23]        |   | 20°            | 70°  | 10°            | PF 1/2     |
|                                                                                    | <b>SZL-WLE-A</b>   | side rotary standard lever, high precision  | 1    | 0,51<br>[4.5]         |  | 7°             | 40°  | 3°             | PF 1/2     |

Note:

1. Operating characteristics are measured at the actuator arm length of 38 mm [1.5 in]

# SZL-WL Series

O.T. • Operating torque  
O.F. • Operating force  
P.T. • Pretravel  
O.T. • Overtravel  
D.T. • Differential travel

Table 4. Product listings, continued

|                                                                                    | Part Number        | Actuation                                           | Note | O.T.<br>Nm<br>[in-lb] | Bar chart                                            | P.T.<br>(max.) | O.T. | D.T.<br>(max.) | Conduit    |
|------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------|------|-----------------------|------------------------------------------------------|----------------|------|----------------|------------|
|  | <b>SZL-WL-B</b>    | side rotary adjustable lever, standard              | 1    | 0,51<br>[4.5]         | 0° 20° 50°<br>1-2<br>3-4                             | 20°            | 30°  | 12°            | PF 1/2     |
|                                                                                    | <b>SZL-WL-B-N</b>  |                                                     |      |                       | 0° 8° 50°<br>3-4<br>1-2                              |                |      |                | 1/2 in NPT |
|                                                                                    | <b>SZL-WLA-B</b>   | side rotary adjustable lever, high overtravel       | 1    | 0,37<br>[3.3]         | 0° 22° 77°<br>1-2<br>3-4<br>0° 12° 77°<br>3-4<br>1-2 | 22°            | 55°  | 10°            | PF 1/2     |
|                                                                                    | <b>SZL-WLB-B</b>   | side rotary adjustable lever, high overtravel       | 1    | 0,37<br>[3.3]         | 0° 12° 77°<br>1-2<br>3-4<br>0° 5° 77°<br>3-4<br>1-2  | 12°            | 65°  | 7°             | PF 1/2     |
|                                                                                    | <b>SZL-WLC-B</b>   | side rotary adjustable lever, high overtravel       | 1    | 0,34<br>[3.0]         | 0° 30° 90°<br>1-2<br>3-4                             | 30°            | 60°  | 16°            | PF 1/2     |
|                                                                                    | <b>SZL-WLC-B-N</b> |                                                     |      |                       | 0° 14° 90°<br>3-4<br>1-2                             |                |      |                | 1/2 in NPT |
|                                                                                    | <b>SZL-WLD-B</b>   | side rotary adjustable lever, high overtravel       | 1    | 0,37<br>[3.23]        | 0° 20° 90°<br>1-2<br>3-4<br>0° 10° 90°<br>3-4<br>1-2 | 20°            | 70°  | 10°            | PF 1/2     |
|                                                                                    | <b>SZL-WLE-B</b>   | side rotary adjustable lever, <b>high precision</b> | 2    | 0,51<br>[4.5]         | 0° 5° 45°<br>1-2<br>3-4<br>0° 2° 45°<br>3-4<br>1-2   | 5°             | 40°  | 3°             | PF 1/2     |

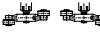
Notes:

1. Operating characteristics are measured at the actuator arm length of 38 mm [1.5 in]
2. Operating characteristics are measured at the actuator arm length of 140 mm [5.5 in]

# MICRO SWITCH™ General Purpose Limit Switches

O.T. • Operating torque  
O.F. • Operating force  
P.T. • Pretravel  
O.T. • Overtravel  
D.T. • Differential travel

Table 4. Product listings, continued

|                                                                                    | Part Number                        | Actuation                                                                                                                                                                                                                                                | Note | O.T.<br>Nm<br>[in-lb] | Bar chart                                                      | P.T.<br>(max.) | O.T. | D.T.<br>(max.) | Conduit    |
|------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------------------------------------------------|----------------|------|----------------|------------|
|  | <b>SZL-WL-C</b>                    | side rotary rod adjustable, standard                                                                                                                                                                                                                     | 2    | 0,195<br>[1.72]       | 0° 20° 50°<br>1-2<br>3-4<br>→                                  | 20°            | 30°  | 12°            | PF 1/2     |
|                                                                                    | <b>SZL-WL-C-N</b>                  |                                                                                                                                                                                                                                                          |      |                       | 0° 8° 50°<br>3-4<br>1-2<br>←                                   |                |      |                | 1/2 in NPT |
|                                                                                    | <b>SZL-WLA-C</b>                   | side rotary rod adjustable, high overtravel                                                                                                                                                                                                              | 2    | 0,398<br>[3.52]       | 0° 22° 77°<br>1-2<br>3-4<br>→<br>0° 12° 77°<br>3-4<br>1-2<br>← | 22°            | 55°  | 10°            | PF 1/2     |
|                                                                                    | <b>SZL-WLB-C</b>                   | side rotary rod adjustable, high overtravel                                                                                                                                                                                                              | 2    | 0,398<br>[3.52]       | 0° 12° 77°<br>1-2<br>3-4<br>→<br>0° 5° 77°<br>3-4<br>1-2<br>←  | 12°            | 65°  | 7°             | PF 1/2     |
|                                                                                    | <b>SZL-WLC-C</b>                   | side rotary rod adjustable, high overtravel                                                                                                                                                                                                              | 2    | 0,38<br>[3.16]        | 0° 30° 70°<br>1-2<br>3-4<br>→                                  | 30°            | 40   | 16°            | PF 1/2     |
|                                                                                    | <b>SZL-WLC-C-N</b>                 |                                                                                                                                                                                                                                                          |      |                       | 0° 14° 70°<br>3-4<br>1-2<br>←                                  |                |      |                | 1/2 in NPT |
|                                                                                    | <b>SZL-WLD-C</b>                   | side rotary rod adjustable, high overtravel                                                                                                                                                                                                              | 2    | 0,398<br>[3.52]       | 0° 20° 90°<br>1-2<br>3-4<br>→<br>0° 10° 90°<br>3-4<br>1-2<br>← | 20°            | 70°  | 10°            | PF 1/2     |
|  | <b>SZL-WLE-C</b>                   | Side rotary rod adjustable, <b>high precision</b>                                                                                                                                                                                                        | 1    | 0,195<br>[1.72]       | 0° 5° 45°<br>1-2<br>3-4<br>→<br>0° 2° 45°<br>3-4<br>1-2<br>←   | 5°             | 40°  | 3°             | PF 1/2     |
|                                                                                    | <b>SZL-WL-D</b><br><b>SZL-WL-P</b> | fork lock lever, opposite direction rollers (-D); same direction rollers (-P)<br>  |      | 0,447<br>[4.0]        | 0° 55° 90°<br>1-2<br>3-4<br>→<br>0° 55° 90°<br>3-4<br>1-2<br>← | 55°            | 35°  | –              | PF 1/2     |

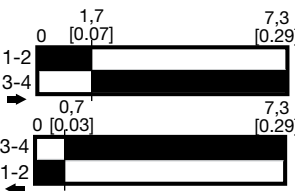
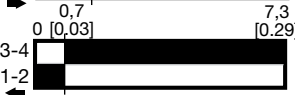
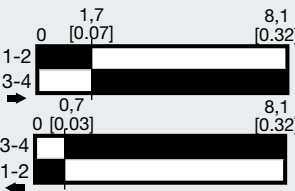
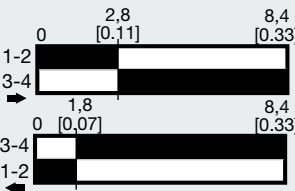
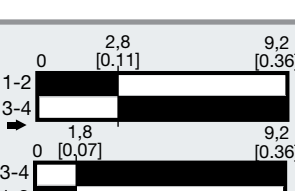
Notes:

- Operating characteristics are measured at the actuator arm length of 38 mm [1.5 in]
- Operating characteristics are measured at the actuator arm length of 140 mm [5.5 in]

# SZL-WL Series

O.T. • Operating torque  
O.F. • Operating force  
P.T. • Pretravel  
O.T. • Overtravel  
D.T. • Differential travel

Table 4. Product listings, continued

|                                                                                     | Part Number       | Actuation                     | Note | O.F.<br>N [lb]  | Bar chart                                                                            | P.T.<br>(max.)      | O.T.                | D.T.<br>(max.)    | Conduit       |
|-------------------------------------------------------------------------------------|-------------------|-------------------------------|------|-----------------|--------------------------------------------------------------------------------------|---------------------|---------------------|-------------------|---------------|
|    | <b>SZL-WL-E</b>   | top roller plunger            | –    | 26,67<br>[6.0]  |    | 1,7 mm<br>[0.07 in] | 5,6 mm<br>[0.22 in] | 1 mm<br>[0.04 in] | PF 1/2        |
|                                                                                     | <b>SZL-WL-E-N</b> |                               |      |                 |    |                     |                     |                   | 1/2 in<br>NPT |
|    | <b>SZL-WL-F</b>   | top plunger                   | –    | 26,67<br>[6.0]  |    | 1,7 mm<br>[0.07 in] | 6,4 mm<br>[0.25 in] | 1 mm<br>[0.04 in] | PF 1/2        |
|                                                                                     | <b>SZL-WL-F-N</b> |                               |      |                 |    |                     |                     |                   | 1/2 in<br>NPT |
|    | <b>SZL-WL-G</b>   | top roller plunger,<br>sealed | –    | 16,67<br>[3.75] |    | 1,7 mm<br>[0.07 in] | 5,6 mm<br>[0.22 in] | 1 mm<br>[0.04 in] | PF 1/2        |
|   | <b>SZL-WL-H</b>   | side roller<br>plunger        | –    | 40,03<br>[9.0]  |   | 2,8 mm<br>[0.11 in] | 5,6 mm<br>[0.22 in] | 1 mm<br>[0.04 in] | PF 1/2        |
|  | <b>SZL-WL-I</b>   | top ball plunger              | –    | 26,67<br>[6.0]  |  | 1,7 mm<br>[0.07 in] | 4 mm<br>[0.157 in]  | 1 mm<br>[0.04 in] | PF 1/2        |
|  | <b>SZL-WL-J</b>   | side plunger                  | –    | 40,03<br>[9.0]  |  | 2,8 mm<br>[0.11 in] | 6,4 mm<br>[0.25 in] | 1 mm<br>[0.04 in] | PF 1/2        |

# MICRO SWITCH™ General Purpose Limit Switches

O.T. • Operating torque  
O.F. • Operating force  
P.T. • Pretravel  
O.T. • Overtravel  
D.T. • Differential travel

Table 4. Product listings, continued

|                                                                                     | Part Number       | Actuation                                         | Note | O.F.<br>N [lb] | Bar chart | P.T.<br>(max.)                           | O.T. | D.T.<br>(max.) | Conduit       |
|-------------------------------------------------------------------------------------|-------------------|---------------------------------------------------|------|----------------|-----------|------------------------------------------|------|----------------|---------------|
|    | <b>SZL-WL-K</b>   | wobble-coil<br>spring<br>Ø 6,5 mm<br>[Ø 0.256 in] | 3, 4 | 1,47<br>[0.33] | –         | 20 mm<br>±10 mm<br>[0.79 in<br>±0.39 in] | –    | –              | PF 1/2        |
|                                                                                     | <b>SZL-WL-K-N</b> |                                                   |      |                |           |                                          |      |                | 1/2 in<br>NPT |
|                                                                                     | <b>SZL-WL-L</b>   | wobble-coil<br>spring<br>Ø 4,8 mm<br>[Ø 0.189 in] | 3, 4 | 1,47<br>[0.33] | –         | 20 mm<br>±10 mm<br>[0.79 in<br>±0.39 in] | –    | –              | PF 1/2        |
|   | <b>SZL-WL-M</b>   | wobble-plastic<br>rod<br>Ø 8,0 mm<br>[Ø 0.315 in] | 3, 4 | 1,47<br>[0.33] | –         | 40 mm<br>±20 mm<br>[1.57 in<br>±0.79 in] | –    | –              | PF 1/2        |
|  | <b>SZL-WL-N</b>   | wobble-steel<br>wire<br>Ø 1,0 mm<br>[Ø 0.04 in]   | 3, 4 | 0,28<br>[0.06] | –         | 40 mm<br>±20 mm<br>[1.57 in<br>±0.79 in] | –    | –              | PF 1/2        |

Notes:

1. Operating characteristics are measured at the actuator arm length of 38 mm [1.5 in]
2. Operating characteristics are measured at the actuator arm length of 140 mm [5.5 in]
3. Operating characteristics are measured at the tip of the actuator
4. Operating force is measured from the tip of the wobble

## DIMENSIONS mm [in]

[illegible]

Technical drawing of the KS B 0221 (PF 1/2) 4 threads min. device, showing front, side, and top views with dimensions in mm and inches.

**Front View Dimensions:**

- Top mounting hole:  $\varnothing 17.5 \text{ mm}$  [7 mm] ( $\varnothing 0.69 \text{ in} \times 0.28 \text{ in}$ ) stainless steel roller
- Adjustable range: 25 mm to 89 mm [1.0 in to 3.5 in]
- 4 - M3.5 x 27.5 head mounting screw and spring washer
- M5 x 16 hexagon socket head bolts
- 4 -  $\varnothing 5.20 \text{ mm}$  [0.21 in] mounting holes
- 3 - M4 x 13 cover mounting screw
- Adjustable plate
- Cover
- Label position: 5.0 mm [0.20 in]
- Top mounting hole:  $\varnothing 17.5 \text{ mm}$  [7 mm] ( $\varnothing 0.69 \text{ in} \times 0.28 \text{ in}$ ) stainless steel roller
- Adjustable range: 25 mm to 89 mm [1.0 in to 3.5 in]
- 4 - M3.5 x 27.5 head mounting screw and spring washer
- M5 x 16 hexagon socket head bolts
- 4 -  $\varnothing 5.20 \text{ mm}$  [0.21 in] mounting holes
- 3 - M4 x 13 cover mounting screw
- Adjustable plate
- Cover
- Label position: 5.0 mm [0.20 in]

**Side View Dimensions:**

- Top mounting hole:  $\varnothing 17.5 \text{ mm}$  [7 mm] ( $\varnothing 0.69 \text{ in} \times 0.28 \text{ in}$ ) stainless steel roller
- Adjustable range: 25 mm to 89 mm [1.0 in to 3.5 in]
- 4 - M3.5 x 27.5 head mounting screw and spring washer
- M5 x 16 hexagon socket head bolts
- 4 -  $\varnothing 5.20 \text{ mm}$  [0.21 in] mounting holes
- 3 - M4 x 13 cover mounting screw
- Adjustable plate
- Cover
- Label position: 5.0 mm [0.20 in]
- Top mounting hole:  $\varnothing 17.5 \text{ mm}$  [7 mm] ( $\varnothing 0.69 \text{ in} \times 0.28 \text{ in}$ ) stainless steel roller
- Adjustable range: 25 mm to 89 mm [1.0 in to 3.5 in]
- 4 - M3.5 x 27.5 head mounting screw and spring washer
- M5 x 16 hexagon socket head bolts
- 4 -  $\varnothing 5.20 \text{ mm}$  [0.21 in] mounting holes
- 3 - M4 x 13 cover mounting screw
- Adjustable plate
- Cover
- Label position: 5.0 mm [0.20 in]

**Top View Dimensions:**

- Top mounting hole:  $\varnothing 17.5 \text{ mm}$  [7 mm] ( $\varnothing 0.69 \text{ in} \times 0.28 \text{ in}$ ) stainless steel roller
- Adjustable range: 25 mm to 89 mm [1.0 in to 3.5 in]
- 4 - M3.5 x 27.5 head mounting screw and spring washer
- M5 x 16 hexagon socket head bolts
- 4 -  $\varnothing 5.20 \text{ mm}$  [0.21 in] mounting holes
- 3 - M4 x 13 cover mounting screw
- Adjustable plate
- Cover
- Label position: 5.0 mm [0.20 in]
- Top mounting hole:  $\varnothing 17.5 \text{ mm}$  [7 mm] ( $\varnothing 0.69 \text{ in} \times 0.28 \text{ in}$ ) stainless steel roller
- Adjustable range: 25 mm to 89 mm [1.0 in to 3.5 in]
- 4 - M3.5 x 27.5 head mounting screw and spring washer
- M5 x 16 hexagon socket head bolts
- 4 -  $\varnothing 5.20 \text{ mm}$  [0.21 in] mounting holes
- 3 - M4 x 13 cover mounting screw
- Adjustable plate
- Cover
- Label position: 5.0 mm [0.20 in]

[illegible][illegible]

## DIMENSIONS mm [in]

[illegible]

Technical drawing of the Honeywell LS1000 limit switch, showing front and side views with dimensions in mm and inches.

**Front View Dimensions:**

- Top mounting: 4 - M3.5 x 27.5 head mounting screw and spring washer
- Mounting holes: 4 - Ø 5,20 mm [0.21 in]
- Label: Honeywell LIMIT SWITCH, SLL WL-F, IOA 125 250V AC, 0.8A 125VAC, 0.4A 250VAC, 1.0A 125VAC, 0.8A 250VAC, 1.0A 250VAC
- Cover mounting: 3 - M4 x 13 cover mounting screw
- Dimensions: 34.0 mm [1.34 in] free position, 58.7 mm [2.31 in] total height, 5.0 mm [0.20 in] bottom flange, 15.1 mm [0.59 in] bottom hole offset, 30.2 mm [1.19 in] bottom hole diameter, 40.0 mm [1.57 in] bottom width, 4.9 mm [0.19 in] bottom hole offset.

**Side View Dimensions:**

- Top mounting: 13.1 mm [0.52 in] total height, 12.7 mm [0.50 in] mounting hole offset
- Label: LABEL POSITION, 19.9 mm [0.78 in] label height, 13.0 mm [0.51 in] label offset, 5.0 mm [0.20 in] label offset
- Cover: 66.7 mm [2.70 in] cover height, 88.6 mm [3.49 in] total height
- Bottom mounting: 21.6 mm [0.85 in] total height, 29.2 mm [1.15 in] mounting hole offset, 35.0 mm [1.38 in] mounting hole diameter, 41.5 mm [1.63 in] max. bottom width
- Bottom hole: 4 - M6 x 1.0 15 depth min.

Technical drawing of the KS B 0221 (PF 1/2) limit switch, showing front and side views with dimensions in mm and inches.

**Front View Dimensions:**

- Top mounting hole:  $\varnothing 11.2 \text{ mm} \times 4.9 \text{ mm}$  [ $\varnothing 0.44 \text{ in} \times 0.19 \text{ in}$ ] stainless steel roller
- Head mounting: 4 - M3.5 x 10.0 head mounting screw and spring washer
- Mounting holes: 4 -  $\varnothing 5.20 \text{ mm}$  [0.21 in] mounting holes
- Label: Honeywell LIMIT SWITCH SZL-WL-G 10A 125-250V AC 0.8A 125VDC 0.4A 250VDC 1.0HP 125VAC 1HP 250VAC
- Cover mounting: 3 - M4 x 13 cover mounting screw
- Bottom mounting holes: 4 -  $\varnothing 5.20 \text{ mm}$  [0.21 in] mounting holes
- Bottom dimensions: 15.1 mm [0.59 in], 30.2 mm [1.19 in], 40.0 mm [1.57 in]
- Overall height: 58.7 mm [2.31 in]
- Top section height: 45.4 mm [1.79 in] free position, 44.0 mm [1.79 in] operating position
- Pretravel: 4.9 mm [0.19 in]

**Side View Dimensions:**

- Overall height: 68.7 mm [2.70 in]
- Top section height: 40.3 mm [1.59 in]
- Label position: 5.0 mm [0.20 in]
- Label dimensions: 3.0 mm [0.51 in], 21.6 mm [0.85 in]
- Bottom mounting holes: 4 - M6 x 1.0 15 depth min.
- Bottom dimensions: 29.2 mm [1.15 in], 35.0 mm [1.38 in], 41.5 mm [1.63 in] max.
- Cover: KS B 0221 (PF 1/2) 4 threads min.

[illegible]

## DIMENSIONS mm [in]

Technical drawing of the KS B 0221 (PF 1/2) 4 threads min. switch, showing front and side views with dimensions in mm and inches.

**Front View Dimensions:**

- Top mounting: Ø 12,7 mm [0.50 in] stainless ball
- Pretravel: 44,5 mm [1.75 in] operating position
- Free position: 46,2 mm [1.82 in]
- Mounting holes: 4 - Ø 5,20 mm [0.21 in]
- Cover mounting screw: 3 - M4 x 13
- Label position: 5,0 mm [0.20 in]
- Bottom mounting holes: 15,1 mm [0.59 in]
- Bottom mounting holes: 30,2 mm [1.19 in]
- Overall width: 40,0 mm [1.57 in]
- Bottom mounting holes: 4,9 mm [0.19 in]

**Side View Dimensions:**

- Top mounting: 13,1 mm [0.52 in]
- Top mounting: 12,7 mm [0.50 in]
- Mounting holes: 19,9 mm [0.78 in]
- Mounting holes: 3,0 mm [0.12 in]
- Label position: 5,0 mm [0.20 in]
- Overall height: 68,7 mm [2.70 in]
- Overall height: 88,6 mm [3.49 in]
- Bottom mounting holes: 21,6 mm [0.85 in]
- Bottom mounting holes: 29,2 mm [1.15 in]
- Bottom mounting holes: 35,0 mm [1.38 in]
- Bottom mounting holes: 41,5 mm [1.63 in] max.
- Bottom mounting holes: 4 - M6 x 1,0 15 depth min.

**Label Text:**

**Honeywell**  
LIMIT SWITCH  
S2L-WL-1  
10A 125/250V AC  
0.8A 125/200V  
0.4A 250/200V  
1/2PF 125/240V  
HP 250VAC

**KS B 0221 (PF 1/2)**  
4 threads min.

[illegible]

Technical drawings of the SZL-WL-K limit switch, showing front and side views with dimensions in mm and inches.

**Front View Dimensions:**

- Pretravel: 20,0 mm [0.79 in]
- Top cable diameter: Ø 6,5 mm [Ø 0.26 in]
- Total height: 140 mm [5.51 in]
- Mounting holes: 4 - Ø 5,20 mm [Ø 0.21 in]
- Label dimensions: 58,7 mm [2.31 in] (height), 40,0 mm [1.57 in] (width)
- Label text:
  - Limit Switch
  - SZL-WL-K
  - 10A 125,250V AC
  - 0.8A 125VAC
  - 0.4A 250VAC
  - 1/2HP 125VAC
  - 1HP 250VAC
  - CE mark and other certifications
- Bottom mounting holes: 3 - M4 x 13 cover mounting screw
- Bottom dimensions: 15,1 mm [0.59 in] (width), 30,2 mm [1.19 in] (width), 4,9 mm [0.19 in] (height), 5,0 mm [0.20 in] (height)

**Side View Dimensions:**

- Top cable diameter: Ø 6,5 mm [Ø 0.26 in]
- Top cable length: 13,1 mm [0.52 in]
- Label position: 5,0 mm [0.20 in] (width), 68,7 mm [2.70 in] (height)
- Label text: LABEL POSITION
- Bottom dimensions: 21,6 mm [0.85 in] (width), 29,2 mm [1.15 in] (width), 35,0 mm [1.38 in] (width), 41,5 mm [1.63 in] max. (width)
- Bottom mounting holes: 4 - M6 x 1.0 15 depth min.
- Bottom screw: KS B 021 (PF 1/2) 4 threads min.

[illegible]

# MICRO SWITCH™ General Purpose Limit Switches

## DIMENSIONS mm [in]

Figure 13. SZL-WL-M

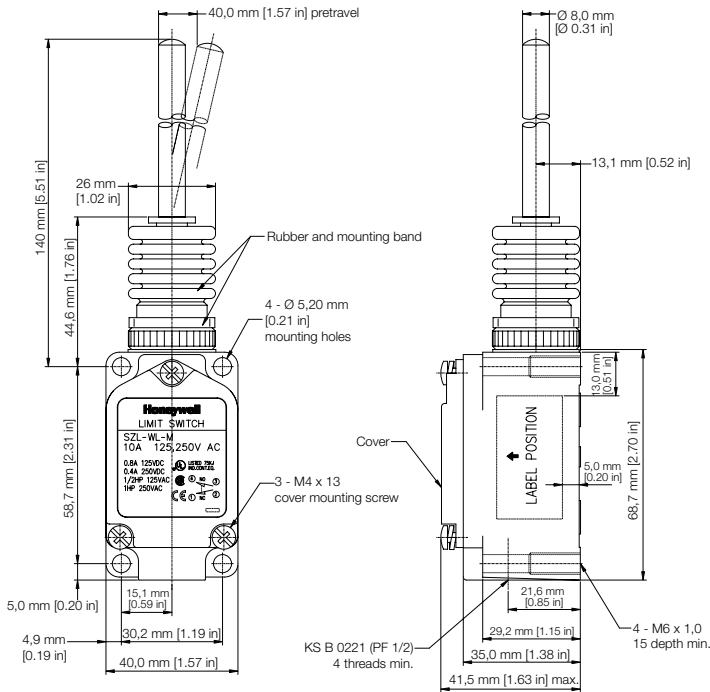
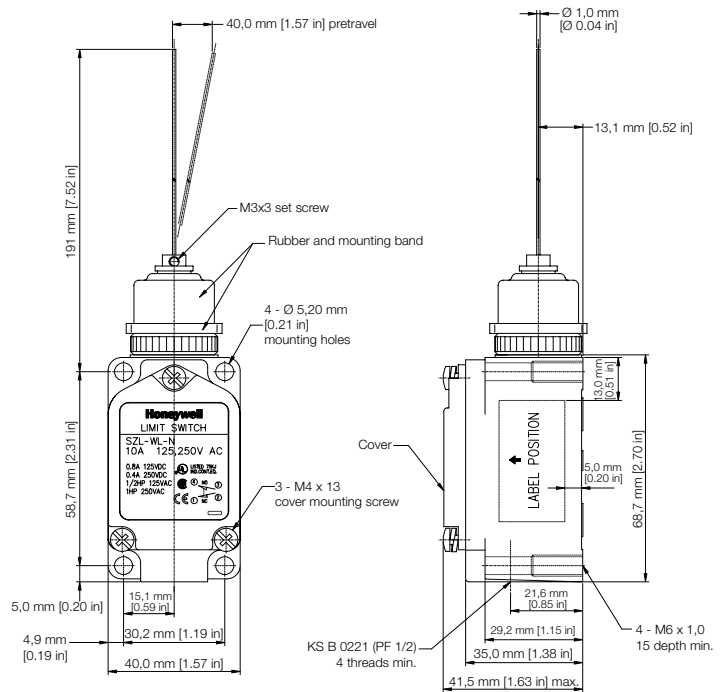


Figure 14. SZL-WL-N

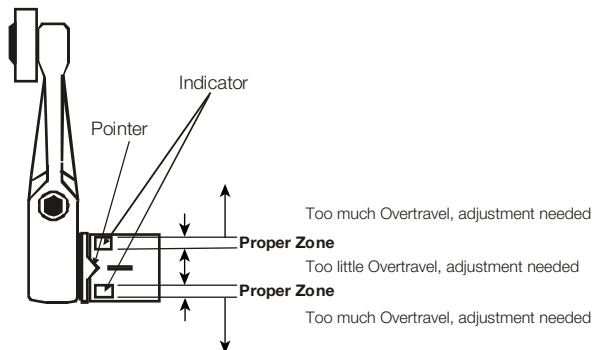


## SET POSITION INDICATOR

### Proper Operation Zone

- The two convex indicators on the shaft housing show the operating zones for proper operation, thereby, simplifying installation and maintenance.
- Too much over-travel may cause shortened mechanical life due to possible damage to the switch mechanism.

Figure 15. Side Rotary Proper Operation Zone



## MOUNTING DIMENSIONS

Figure 16. Surface Mount

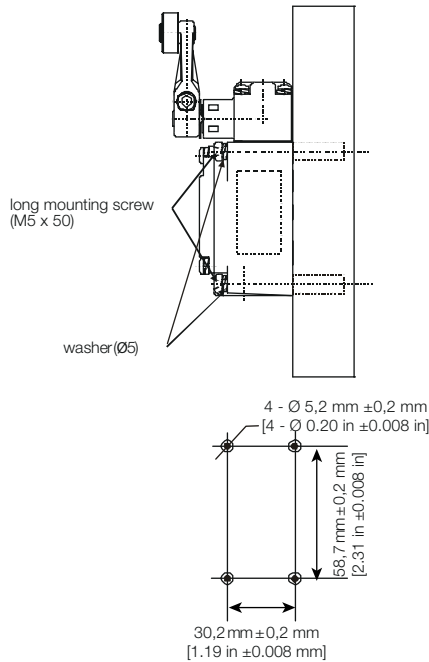


Figure 17. Through-Hole Mount

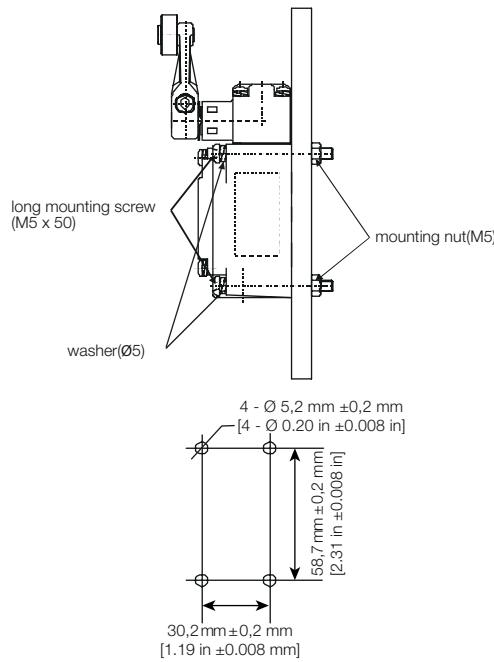
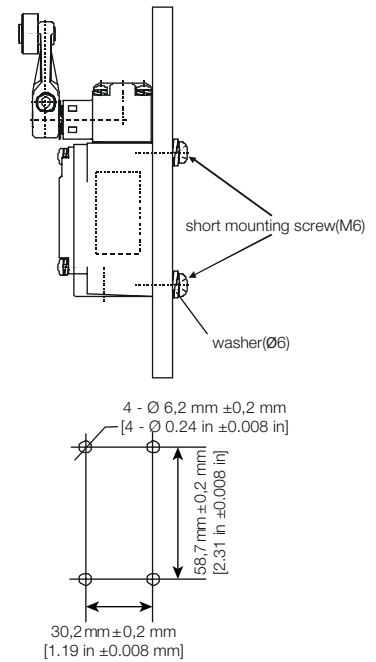


Figure 18. Rear Mount

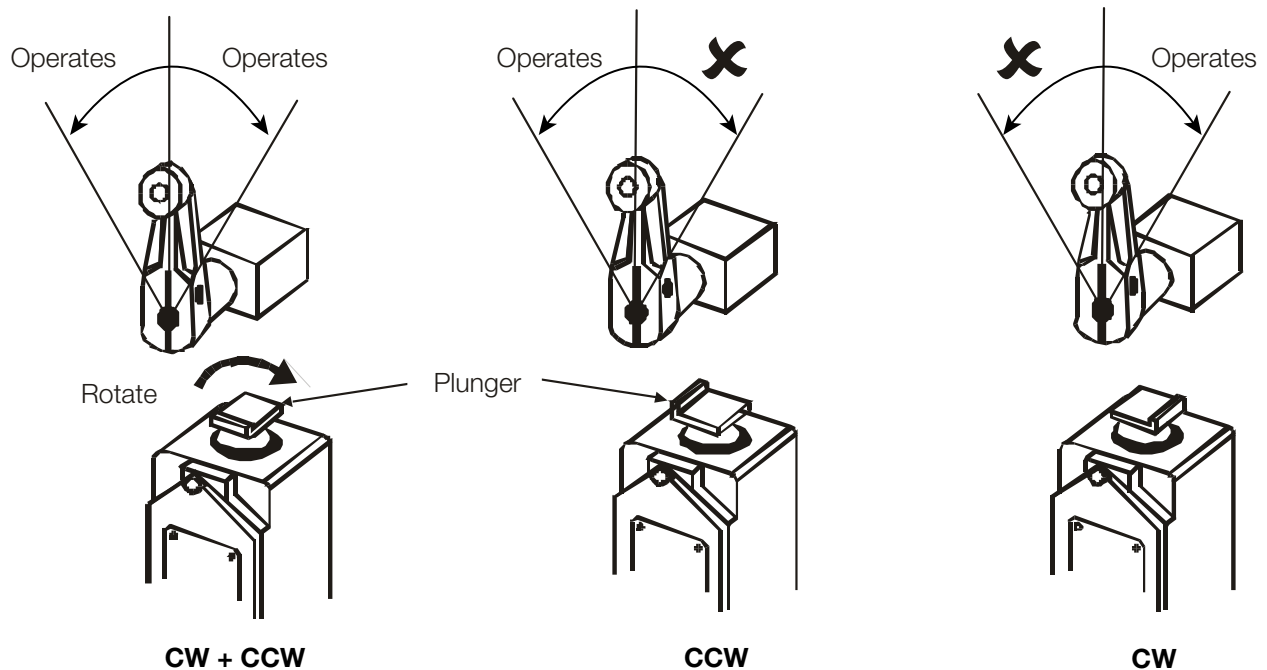


## ADJUSTABLE OPERATING CHARACTERISTICS

### Standard/High Precision Series

- All side rotary switches of Standard and High Precision models can be set to actuate on one side only. Clockwise and counterclockwise mode is available by rotating the plunger inside the operating head as shown below.

Figure 19. Standard/High Precision Type Switches

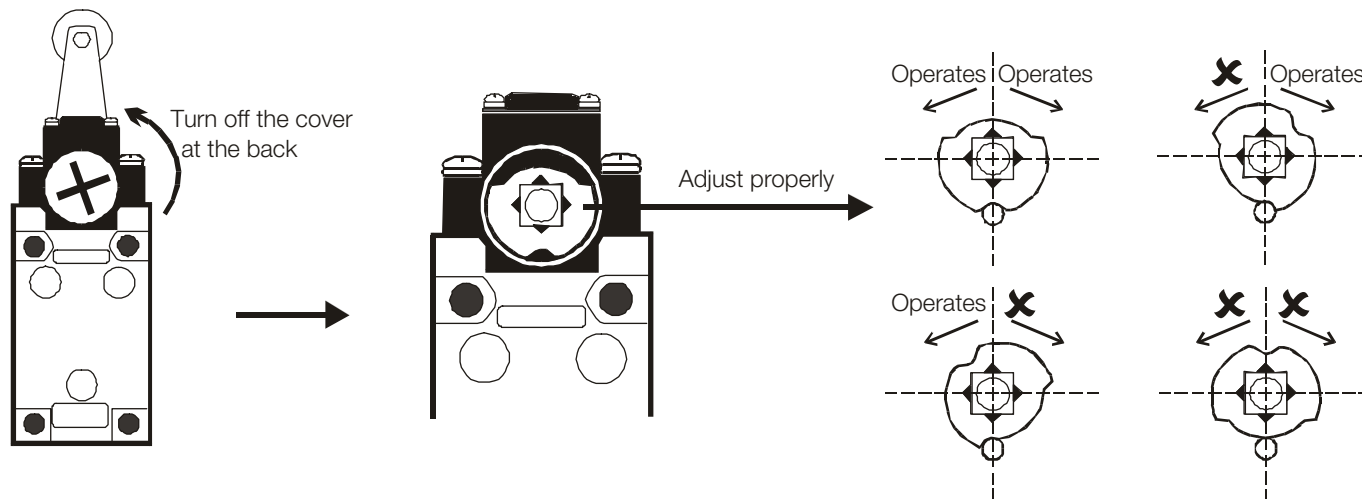


# MICRO SWITCH™ General Purpose Limit Switches

## OVERTRAVEL “D” SERIES

- The Overtravel “D” Series switches can be set to one side actuation mode by rotating the cam located inside the operating head as shown below.

Figure 20. Overtravel “D” Series



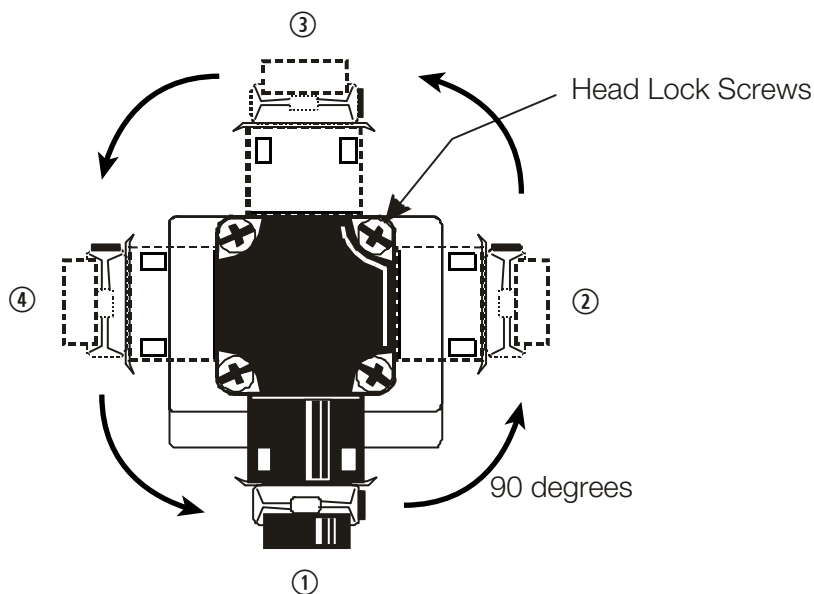
## OPERATING HEAD DIRECTION CHANGE

### 90° Incremental Rotation

- Most SZL-WL –D, P, E, G, H, and J Series switches allow for the operating head to be rotated to any of the four positions indicated below. Loosen the four head lock screws and rotate the head to the desired position.

**Note\*** The head of the Overtravel “D” Series can be set **ONLY** to directions **1** and **3**.

Figure 21. SZL-WL Head Rotation



# SZL-WL Series

## CABLES

### Product Nomenclature

| <b>ZLC</b>                                                                       | <b>—</b> | <b>4</b>                   | <b>D</b>    | <b>S</b>             | <b>D</b>        | <b>—</b> | <b>3</b>                   |                                                                                                                          |
|----------------------------------------------------------------------------------|----------|----------------------------|-------------|----------------------|-----------------|----------|----------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Cable                                                                            |          | Number of Strands          | Voltage     | Shape                | Type            |          | Actuator Type              |                                                                                                                          |
| <b>ZLC</b><br>Series<br>Cable for use<br>with SZL-WL<br>Series Limit<br>Switches |          | <b>2</b> Two (2) strands   | <b>A</b> ac | <b>S</b> Straight    | <b>F</b> Female |          | <b>03</b> 0,3 m [11.80 in] | <b>Terminal number and wire color</b><br>Terminal 1: Brown<br>Terminal 2: White<br>Terminal 3: Blue<br>Terminal 4: Black |
|                                                                                  |          | <b>3</b> Three (3) strands | <b>D</b> dc | <b>L</b> Elbow shape | <b>M</b> Male   |          | <b>2</b> 2 m [6.56 ft]     |                                                                                                                          |
|                                                                                  |          | <b>4</b> Four (4) strands  |             |                      |                 |          | <b>3</b> 3 m [9.84 ft]     |                                                                                                                          |
|                                                                                  |          |                            |             |                      |                 |          | <b>5</b> 5 m [16.40 ft]    |                                                                                                                          |
|                                                                                  |          |                            |             |                      |                 |          | <b>7</b> 7 m [22.96 ft]    |                                                                                                                          |

Figure 22. ZLC-4DLF-\_\_

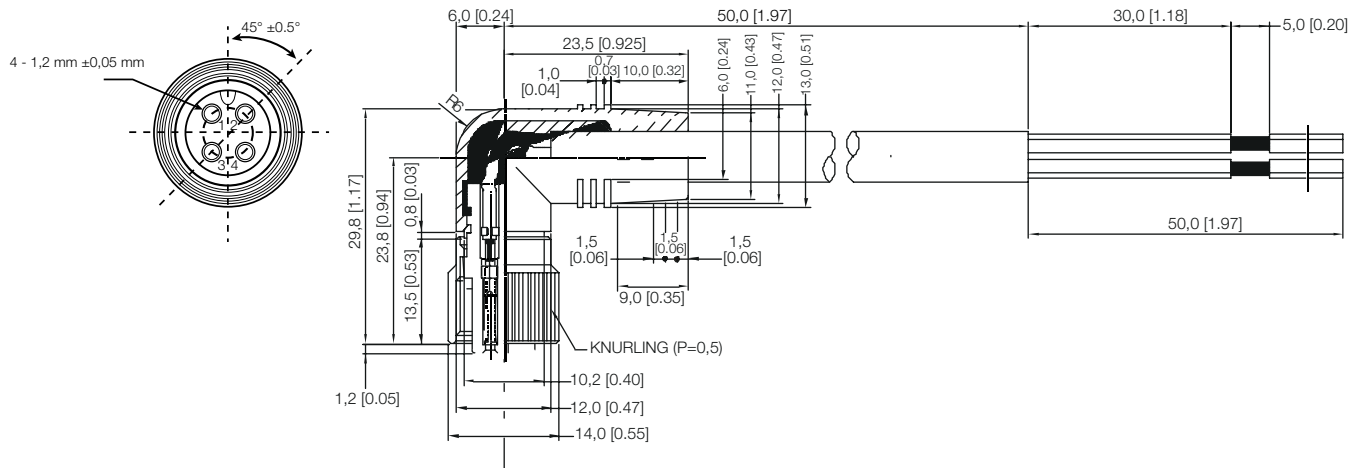
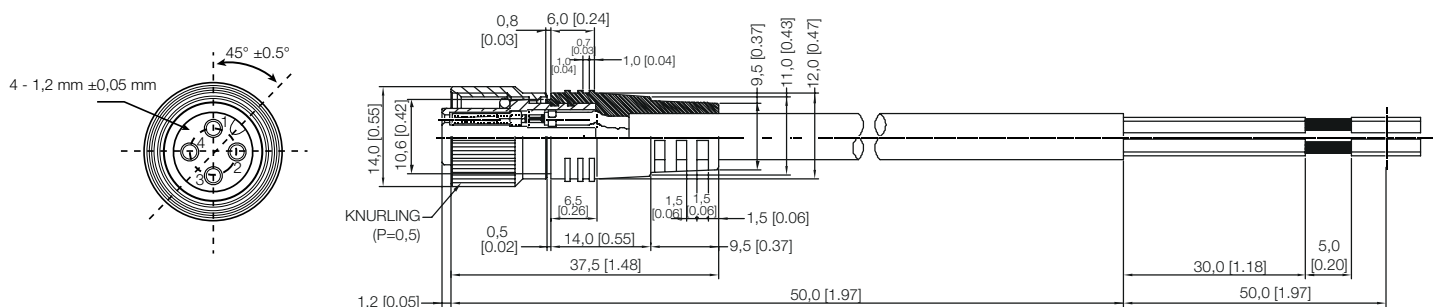
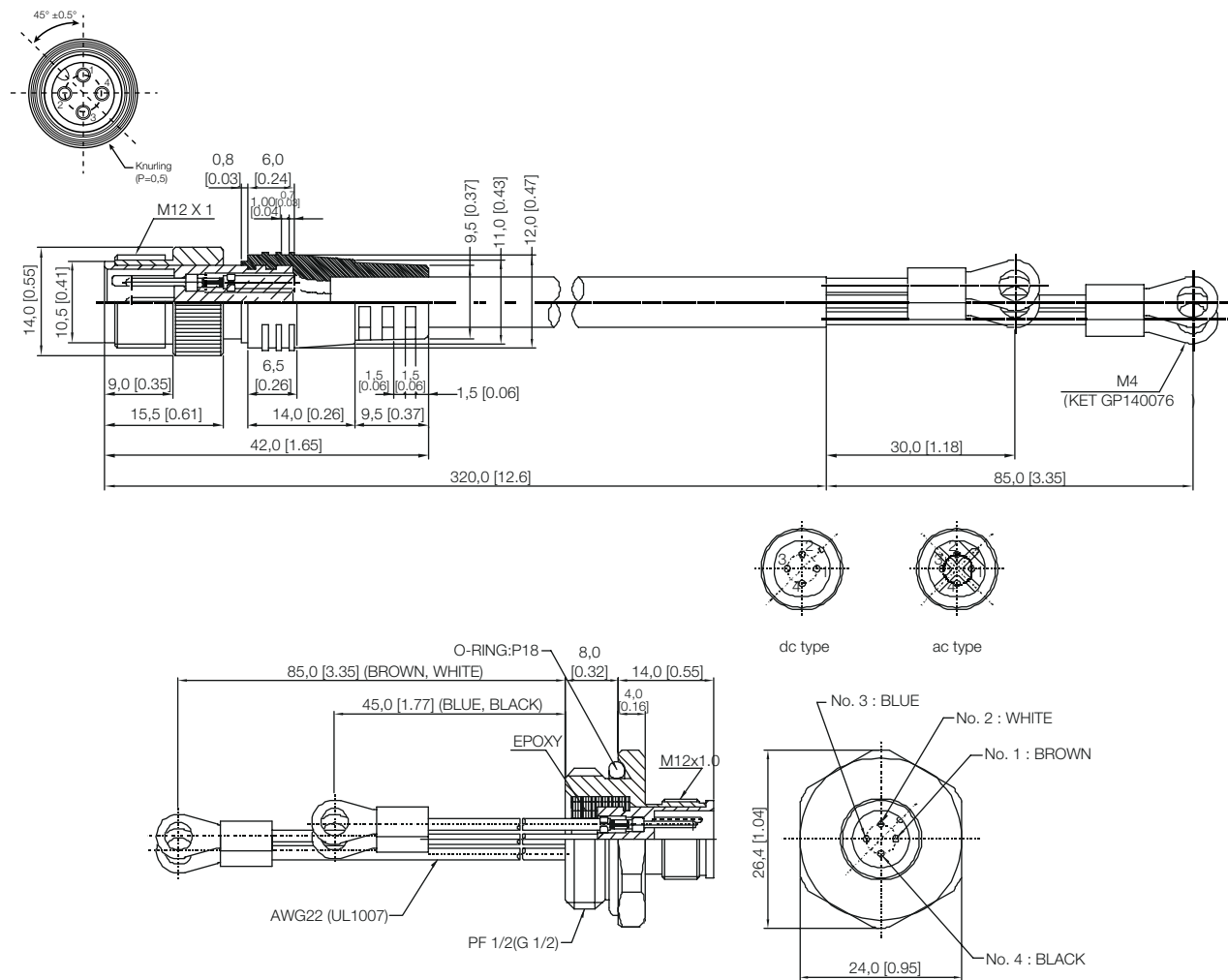


Figure 23. ZLC-4DSF-\_\_



# MICRO SWITCH™ General Purpose Limit Switches

Figure 24. ZLC-4DSM-\_\_



**NOTE:** Receptacle required for using cables. Order part number ZLC-4DRM-85.

# SZL-WL Series

## SEAL CONNECTOR

Product Nomenclature

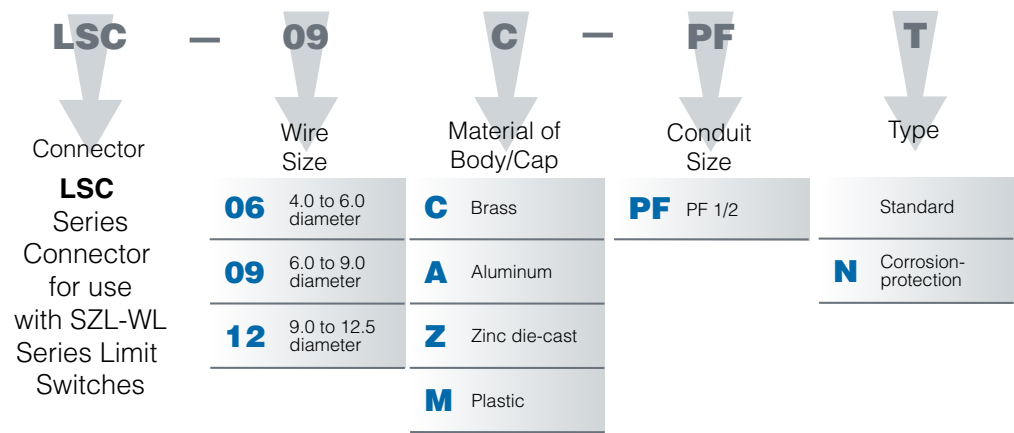
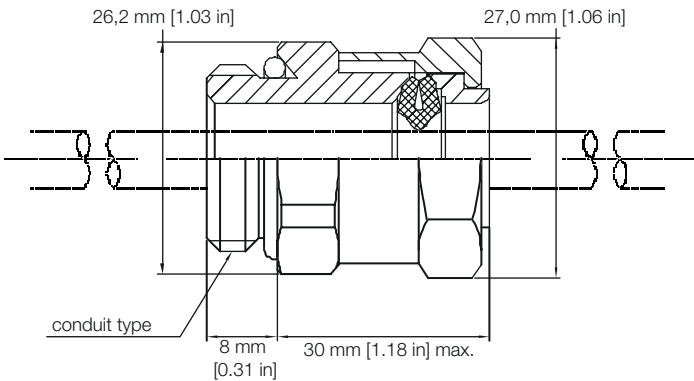


Figure 25. LSC-09C-PFT



# MICRO SWITCH™ General Purpose Limit Switches

## ADDITIONAL INFORMATION

The following associated literature is available on the Web at [sensing.honeywell.com](http://sensing.honeywell.com):

- Product installation instructions
- Product range guide
- Product nomenclature tree
- Product application-specific information
  - Application Note: Application in Injection Molding Machine (IJM)

### This Honeywell datasheet supports the following MICRO SWITCH™ SZL-WL Series listings:

|            |             |                  |
|------------|-------------|------------------|
| SZL-WL-A   | SZL-WLD-B   | SZL-WL-G         |
| SZL-WL-A-N | SZL-WLE-B   | SZL-WL-H         |
| SZL-WL-B-N | SZL-WL-C    | SZL-WL-I         |
| SZL-WL-C-N | SZL-WLA-C   | SZL-WL-J         |
| SZL-WL-E-N | SZL-WLB-C   | SZL-WL-K         |
| SZL-WL-F-N | SZL-WLC-A-N | SZL-WL-L         |
| SZL-WLA-A  | SZL-WLC-B-N | SZL-WL-M         |
| SZL-WLB-A  | SZL-WLC-C   | SZL-WL-N         |
| SZL-WLC-A  | SZL-WLC-C-N | SZL-WL-P         |
| SZL-WLD-A  | SZL-WLD-C   | SZL-WL-A-LEVER   |
| SZL-WLE-A  | SZL-WLE-C   | SZL-WL-A-LEVER-P |
| SZL-WL-B   | SZL-WL-D    | SZL-WL-B-LEVER   |
| SZL-WLA-B  | SZL-WL-E    | SZL-WL-B-LEVER-P |
| SZL-WLB-B  | SZL-WL-F    | SZL-WL-C-LEVER   |
| SZL-WLC-B  |             |                  |

### WARNING

#### PERSONAL INJURY

**DO NOT USE** these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### WARNING

#### MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

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