

SZL-VL-S Series Limit Switches

Features

- Designed for applications of small mounting space
- Improved 10A current capacity
- Constructed with Metal based and plastic cover
- Special design for easy wiring with ample wiring Space
- Standard mounting dimension
- SPDT contact with positive opening of NC contacts
- Long mechanical life
- Oil resist, water and dust proof with Pre-molded flexible cable gland for fast and simple wiring termination

Applications:

- Machine Tools
- Food Processing Machinery
- Conveyors
- Packaging Machine
- Injection Molding Machine
- Specialty Machinery
- Stereoscopic Warehouse

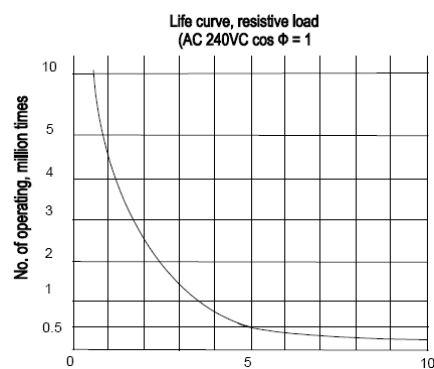


The new economical SZL-VL-S Series miniature type limit switches are specially designed for applications of small mounting space. These miniature switches are ideal for OEM machinery which requires a rugged and reliable limit switch that is capable of being mounted in space restricted applications. A wide range of actuators and optional neon lamp indicators add additional flexibility. A special pre-molded flexible cable gland allows for fast and simple wiring termination

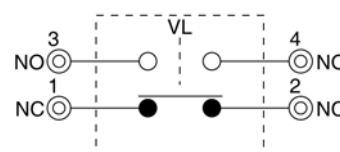
Characteristics

Contact Type/Material	SPDT, Silver Alloy
Actuators	See selection guide
Operating Speed	0.05mm ~ 2m/s
Operating Frequency	Mechanically : 120 ops/min, Electrically : 30 ops/min
Rated Current/Voltage	10A/250VAC (EN60947-5-1)
Contact Resistance	<25mΩ (initial)
Insulation Resistance	>100MΩ@500V DC
Dielectric Strength	1000VAC for 1 min between current carrying parts 2500VAC for 1 min between non-current carrying parts
Service Life	Mechanically : 5,000,000 ops Electrically : 500,000 ops at maximum rating
Shock	Free position:<10G, Maximum position : <30G
Vibration	10 to 55 Hz, 1.5 mm double amplitude
Operating Temperature	-20 to 60°C
Humidity	Max. 95%RH
Certification	CE, UL file# E312336 CCC file # 2007010305227223,
Degree of Protection	IP64

Mechanical Life Curve



Wiring Diagram

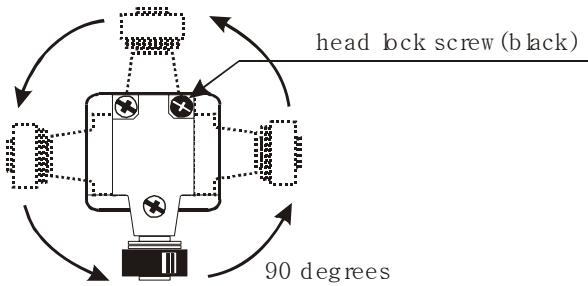


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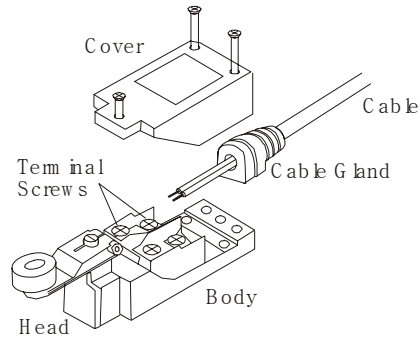
Head Direction Change

All SZL-V-S with side rotary actuator heads may be moved in 90 degree increments to any of the four directions by removing the head lock screw.


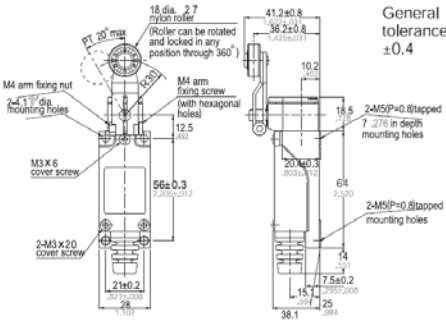


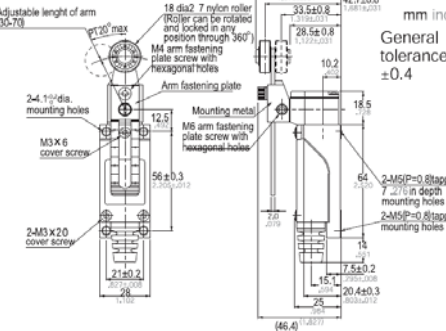


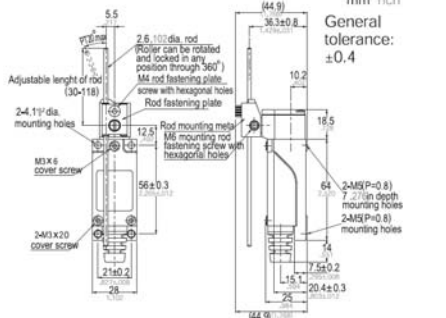



Internal Construction View


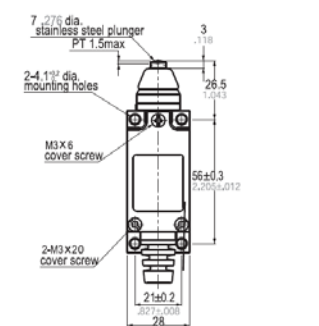
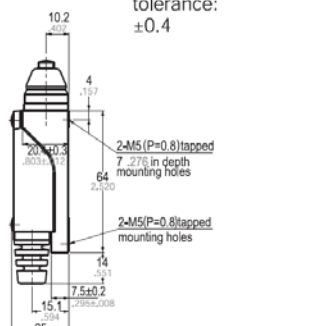
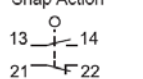

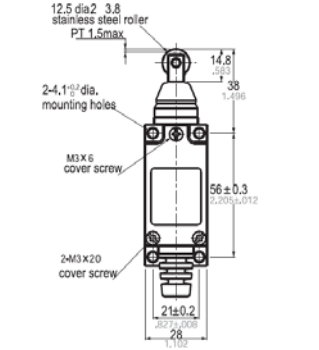
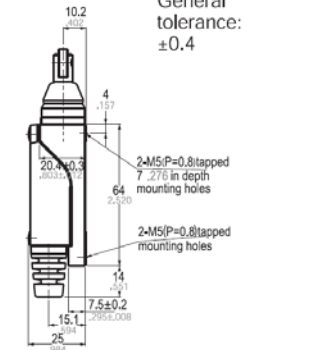
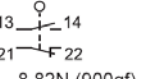

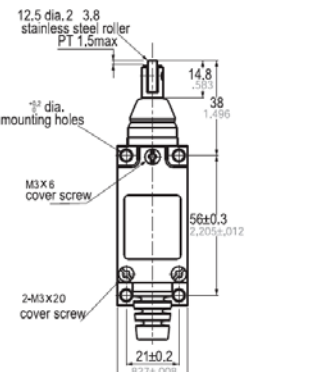
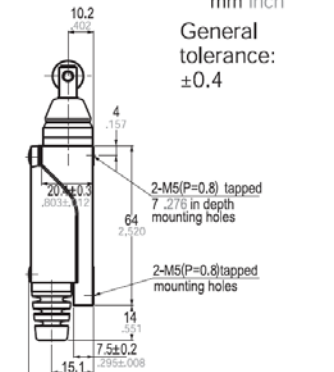
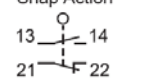

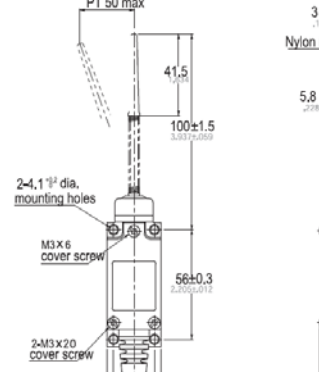
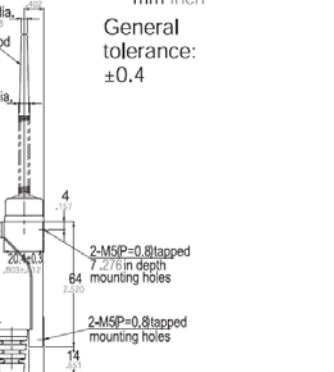
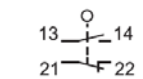
When the cover is removed, the terminals are fully accessible. This will allow wiring work to be completed very easily. Flexible molded cable gland also simplify wiring work and allow switch to be used in small mounting space.




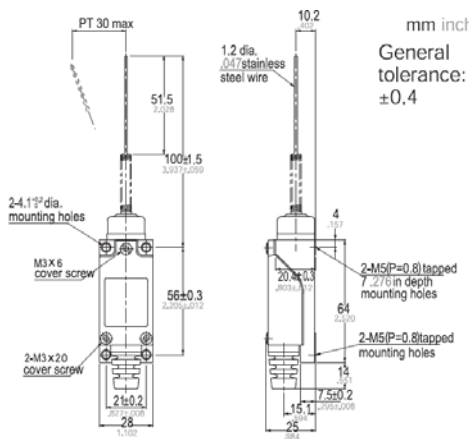


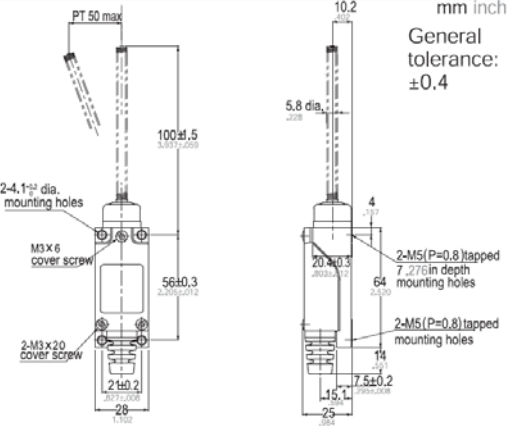
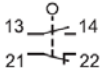
Dimension and Operating Characteristics

<p><SZL-VL-S-I></p> 	 <p>mm inch General tolerance: ±0.4</p>	<p>Operating Characteristic</p> <p>Snap Action</p>  <p>OF_{max} 5.88N (600g) RF_{min} 0.49N (50g) PT_{max} 20° OT_{min} 75° MD_{max} 10° TT 95°</p>
<p><SZL-VL-S-J></p> 	 <p>mm inch General tolerance: ±0.4</p>	<p>Operating Characteristics</p> <p>Snap Action</p>  <p>OF_{max} 3.35~7.84N (342~800) RF_{min} 0.21~0.49N (21~50g) PT_{max} 20° OT_{min} 75° MD_{max} 10° TT 95°</p>
<p><SZL-VL-S-C></p> 	 <p>mm inch General tolerance: ±0.4</p>	<p>Operating Characteristics</p> <p>Snap Action</p>  <p>OF_{max} 1.99~7.84N(203-800gf) RF_{min} 0.12~0.49N PT_{max} 20° OT_{min} 75° MD_{max} 10° TT 95°</p>

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<p><SZL-VL-S-D></p> 	 <p>7.276 dia. stainless steel plunger PT 1.5max</p> <p>2-4.1³/₁₆ dia. mounting holes</p> <p>M3 X 6 cover screw</p> <p>2-M3 X 20 cover screw</p> <p>21±0.2 .827±.008 28 1.102</p> <p>56±0.3 2.205±.012</p>	<p>mm inch</p> <p>General tolerance: ±0.4</p>  <p>10.2 .402</p> <p>3 .118</p> <p>26.5 1.043</p> <p>4 .157</p> <p>20.4±0.3 .803±.012</p> <p>64 2.520</p> <p>2-M5(P=0.8) tapped mounting holes</p> <p>7.276 in depth mounting holes</p> <p>14 .551</p> <p>7.5±0.2 .295±.008</p> <p>15.1 .594</p> <p>25</p>	<p>Operating Characteristic</p> <p>Snap Action</p>  <p>13 14</p> <p>21 22</p> <p>OF_{max} 8.82N (900gf)</p> <p>RF_{min} 1.47N</p> <p>PT_{max} 1.5mm</p> <p>OT_{min} 4mm</p> <p>MD_{max} 0.7mm</p> <p>TT 5.5mm</p>
<p><SZL-VL-S-H></p> 	 <p>12.5 dia. 2 3.8 stainless steel roller PT 1.5max</p> <p>2-4.1³/₁₆ dia. mounting holes</p> <p>M3 X 6 cover screw</p> <p>2-M3 X 20 cover screw</p> <p>21±0.2 .827±.008 28 1.102</p> <p>56±0.3 2.205±.012</p>	<p>mm inch</p> <p>General tolerance: ±0.4</p>  <p>10.2 .402</p> <p>14.8 .583</p> <p>38 1.496</p> <p>4 .157</p> <p>20.4±0.3 .803±.012</p> <p>64 2.520</p> <p>2-M5(P=0.8) tapped mounting holes</p> <p>7.276 in depth mounting holes</p> <p>14 .551</p> <p>7.5±0.2 .295±.008</p> <p>15.1 .594</p> <p>25</p>	<p>Operating Characteristic</p> <p>Snap Action</p>  <p>13 14</p> <p>21 22</p> <p>OF_{max} 8.82N (900gf)</p> <p>RF_{min} 1.47N</p> <p>PT_{max} 1.5mm</p> <p>OT_{min} 4mm</p> <p>MD_{max} 0.7mm</p> <p>TT 5.5mm</p>
<p><SZL-VL-S-E></p> 	 <p>12.5 dia. 2 3.8 stainless steel roller PT 1.5max</p> <p>1³/₈ dia. mounting holes</p> <p>M3 X 6 cover screw</p> <p>2-M3 X 20 cover screw</p> <p>21±0.2 .827±.008 28 1.102</p> <p>56±0.3 2.205±.012</p>	<p>mm inch</p> <p>General tolerance: ±0.4</p>  <p>10.2 .402</p> <p>14.8 .583</p> <p>38 1.496</p> <p>4 .157</p> <p>20.4±0.3 .803±.012</p> <p>64 2.520</p> <p>2-M5(P=0.8) tapped mounting holes</p> <p>7.276 in depth mounting holes</p> <p>14 .551</p> <p>7.5±0.2 .295±.008</p> <p>15.1 .594</p> <p>25</p>	<p>Operating Characteristic</p> <p>Snap Action</p>  <p>13 14</p> <p>21 22</p> <p>OF_{max} 8.82N (900gf)</p> <p>RF_{min} 1.47N</p> <p>PT_{max} 1.5mm</p> <p>OT_{min} 4mm</p> <p>MD_{max} 0.7mm</p> <p>TT 5.5mm</p>
<p><SZL-VL-S-F></p> 	 <p>PT 50 max</p> <p>41.5 1.634</p> <p>100±1.5 3.937±.059</p> <p>2-4.1³/₁₆ dia. mounting holes</p> <p>M3 X 6 cover screw</p> <p>2-M3 X 20 cover screw</p> <p>21±0.2 .827±.008 28 1.102</p> <p>56±0.3 2.205±.012</p>	<p>mm inch</p> <p>General tolerance: ±0.4</p>  <p>10.2 .402</p> <p>3 dia. .118</p> <p>Nylon rod</p> <p>5.8 dia. .228</p> <p>4 .157</p> <p>20.4±0.3 .803±.012</p> <p>64 2.520</p> <p>2-M5(P=0.8) tapped mounting holes</p> <p>7.276 in depth mounting holes</p> <p>14 .551</p> <p>7.5±0.2 .295±.008</p> <p>15.1 .594</p> <p>25</p>	<p>Operating Characteristics</p> <p>Snap Action</p>  <p>13 14</p> <p>21 22</p> <p>OF_{max} 0.88N (90gf)</p> <p>PT_{max} 30mm</p> <p>OT_{max} 20mm</p>

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<p><SZL-VL-S-G></p> 	 <p>PT 30 max 51.5 100±0.5 2-4, 1 1/2 dia. mounting holes M3 x 6 cover screw 2-M3 x 20 cover screw 2±0.2 28 1.100</p> <p>1.2 dia. 304 stainless steel wire 10.2 mm inch General tolerance: ±0.4 4 20±0.3 2-M5(P=0.8) tapped mounting holes 64 2-M5(P=0.8) tapped mounting holes 14 7.5±0.2 25</p>	<p>Operating Characteristics</p> <p>Snap Action</p>  <p>OF_{max} 0.88N (90gf) PT_{max} 30mm OT_{max} 20mm</p>
<p><SZL-VL-S-K></p> 	 <p>PT 50 max 100±0.5 2-4, 1 1/2 dia. mounting holes M3 x 6 cover screw 2-M3 x 20 cover screw 2±0.2 28 1.100</p> <p>5.8 dia. 304 10.2 mm inch General tolerance: ±0.4 4 20±0.3 2-M5(P=0.8) tapped mounting holes 64 2-M5(P=0.8) tapped mounting holes 14 7.5±0.2 25</p>	<p>Operating Characteristics</p> <p>Snap Action</p>  <p>OF_{max} 0.88N (90gf) PT_{max} 30mm OT_{max} 20mm</p>