



MICRO SWITCH™  
Miniature Industrial Limit Switches  
**SZL-VL Series**



Datasheet

# MICRO SWITCH™ SZL-VL Series

## Miniature Industrial Limit Switches

The SZL-VL Series miniature-type limit switch is specially designed for use in applications where limited mounting space is available. These switches are suitable for OEM machinery that requires a rugged and reliable limit switch capable of being mounted in space restricted applications.

Its special design provides ease of wiring with ample wiring space, and has a special pre-molded flexible cable gland for fast and efficient wiring termination. The VL Series can fit in areas that other limit switches cannot and is capable of switching up to 5 A current.

### *What makes our switches better?*

- MICRO SWITCH™ SZL-VL Series has gold-plated silver contacts that allow the unit to switch logic level (low amperage) loads or power level (up to 5 A) loads
- Split housing design provides easy access to terminals making installation in smaller spaces less stressful
- Zinc die-cast body with durable plastic cover provides a rugged, easy access design for ease of installation
- Modular actuator head design allows for quick configurations to meet a variety of application needs



EASY TO INSTALL • MODULAR DESIGN  
GLOBAL AGENCY CERTIFICATIONS

# Features and Benefits

## COMPACT

The SZL-VL's 102 mm x 28 mm x 25 mm [4 in x 1.1 in x 1 in] switch body allows the device to be potentially **used in applications where space is limited.**

**Big Performance. Small Package.**

## LOWER CABLE STRESS

The Series features a **pre-installed cable gland** to help maintain cable stress at a minimum.

## MANY APPLICATIONS

SZL-VL Series' **5 A capability and two-circuit double break electrical structure** provides for use in a wide range of applications. **Multiple actuator options** promotes the SZL-VL Series' application flexibility.

## Potential Applications



## INDUSTRIAL AND TRANSPORTATION

- Determines entrance and exit gate position in parking structures
- Senses position on automated storage and retrieval systems
- Monitors position for packaging and case sealing machines
- Provides up-and-fold ramp cutoff and roll-stop cutoff on wheelchair lifts in vans and/or buses
- Adjusts outrigger deployment position and up-and-down hydraulic pump cutoff on scissor lifts
- Indicates open/closed position for industrial overhead doors
- Performs position sensing on packaging, palleting, and printing equipment

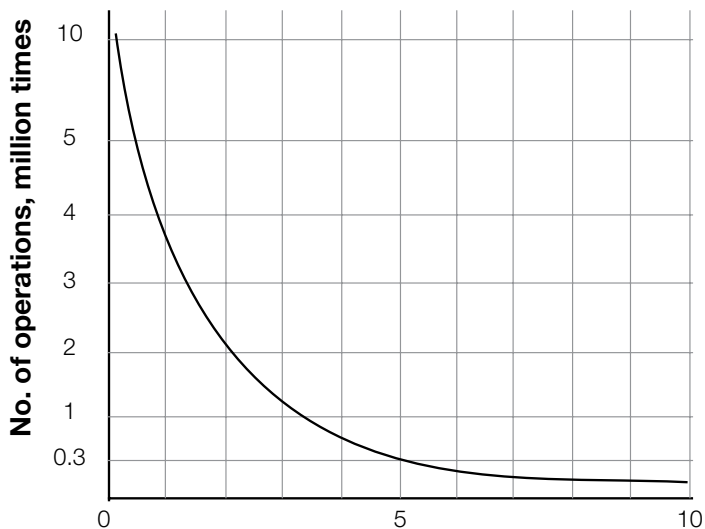
# SZL-VL Series

**Table 1. Specifications**

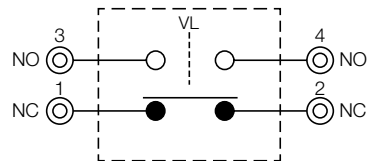
Characteristic	Parameter
Description	miniature industrial limit switch
Series name	VL Series
Sealing	IP64
Vibration	55 Hz at double amplitude of 1,5 mm [0.060 in]
Shock	10 g max.
Operating temperature	-20 °C to 60 °C [-40 °F to 140 °F]
Actuators	roller lever, adjustable roller lever, adjustable rod, top plunger, cross roller plunger, plastic rod with coil spring, wobble with coil spring, roller plunger
Circuitry	1NC/1NO SPDT; double break
Termination	screw terminals with cable gland
Cable gland wire diameter	6 mm to 9 mm [0.237 in to 0.354 in] round, 9,4 mm [0.370 in] flat
Contacts	gold-plated silver alloy
Amp rating	5.0 A/0.4 A
Supply voltage	250 Vac max./125 Vdc max.
Approvals	UL, cUL, CE
UL file #	E150950
Mechanical life	up to 10 million operations
Housing material	zinc diecast/plastic
Availability	North America, Asia-Pacific

## SZL-VL LIFE CURVE

**Life curve, resistive load  
(AC 240VC  $\cos \phi = 1$ )**



## SZL-VL CIRCUITRY









# MICRO SWITCH™ Miniature Industrial Limit Switches

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

## ORDER GUIDE/RECOMMENDED LISTINGS

Table 2. Product listings

Part Number	Actuator Type	O.F. (max.)	R.F. (min.)	P.T. (max.)	O.T.	D.T. (max.)
SZL-VL-A	 Side Rotary Roller Lever	5,88 N [1.32 lb]	0,49 N [0.11 lb]	20°	75° max.	10°
SZL-VL-B	 Side Rotary Roller Lever Adjustable	3,35 N to 7,84 N [0.75 lb to 1.76 lb]	0,21 N to 0,49 N [0.046 lb to 0.11 lb]	20°	75° max.	10°
SZL-VL-C	 Side Rotary Rod Adjustable	2,0 N to 7,84 N [0.45 lb to 1.76 lb]	0,12 N to 0,49 N [0.026 lb to 0.11 lb]	20°	75° max.	10°
SZL-VL-D	 Top Plunger	8,83 N [2 lb]	1,47 N [0.33 lb]	1,5 mm [0.060 in]	4 mm [0.158 in] min.	0,7 mm [0.028 in]
SZL-VL-E	 Cross Roller Plunger	8,83 N [2 lb]	1,47 N [0.33 lb]	1,5 mm [0.060 in]	4 mm [0.158 in] min.	0,7 mm [0.028 in]
SZL-VL-F	 Wobble - Plastic Rod Coil Spring	0,88 N [0.20 lb]	–	30 mm [1.18 in]	20 mm [0.788 in] min.	–
SZL-VL-G	 Wobble - Coil Spring	0,88 N [0.20 lb]	–	30 mm [1.18 in]	20 mm [0.788 in] min.	–
SZL-VL-H	 Roller Plunger	8,83 N [2 lb]	1,47 N [0.33 lb]	1,5 mm [0.060 in]	4 mm [0.158 in] min.	0,7 mm [0.028 in]

# SZL-VL Series

## DIMENSIONS mm [in]

Figure 1. SZL-VL-A

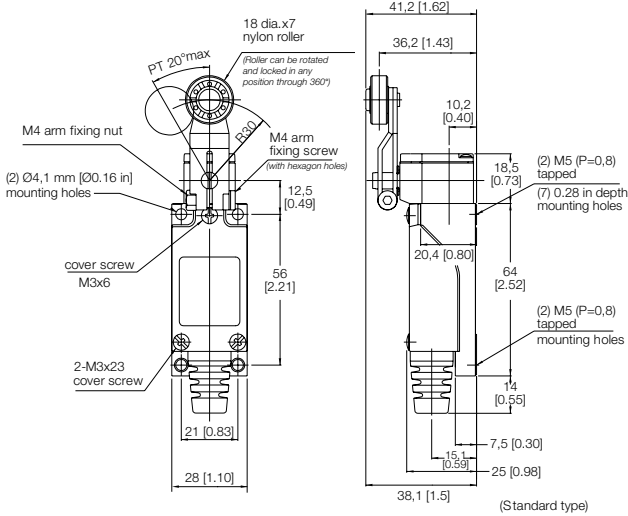


Figure 2. SZL-VL-B

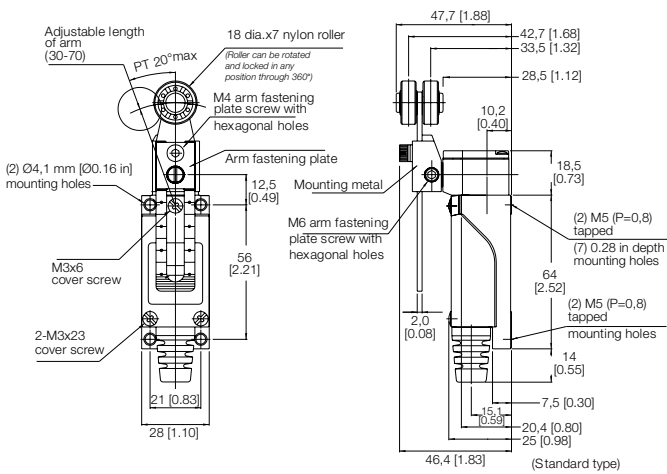


Figure 3. SZL-VL-C

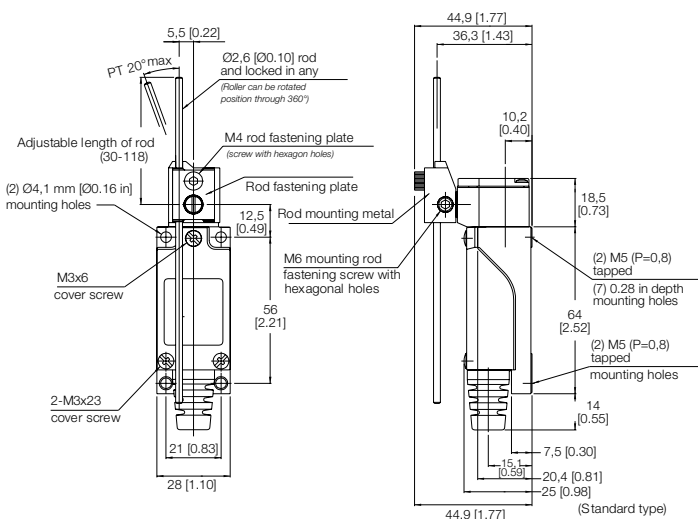


Figure 4. SZL-VL-D

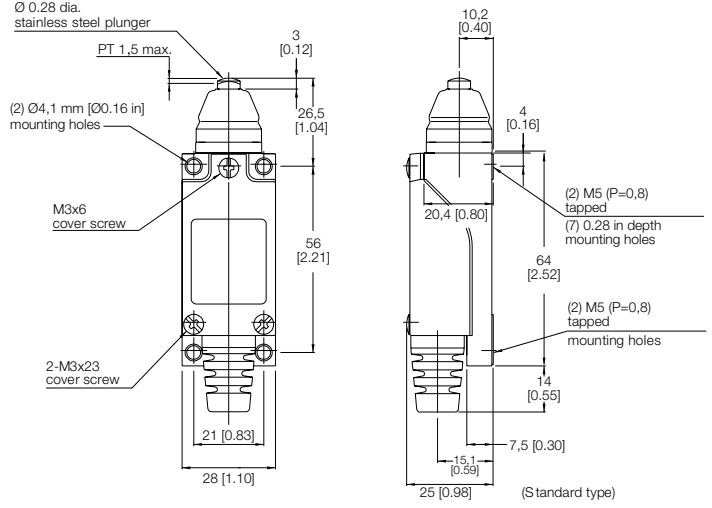
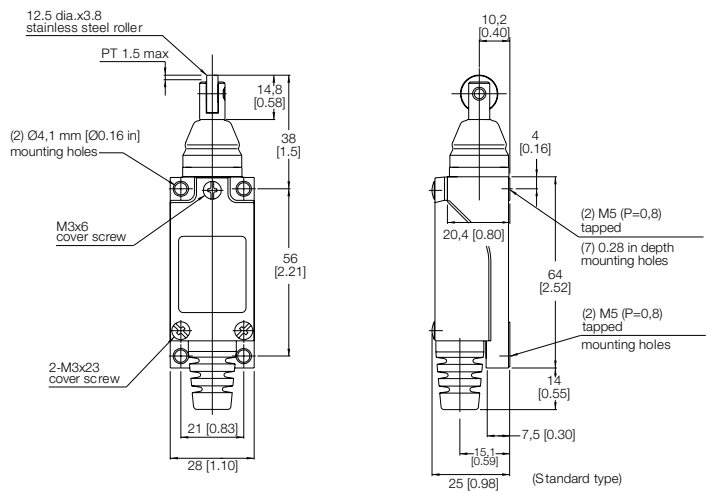
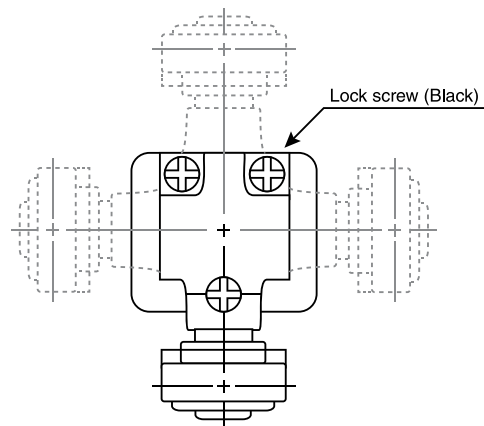


Figure 5. SZL-VL-E



## HEAD ADJUSTMENT: -A, -B, -C

Actuator heads can be rotated in 90° increments on side rotary models (-A, -B, 0C models only).





# MICRO SWITCH™ Miniature Industrial Limit Switches

## DIMENSIONS mm [in]

Figure 6. SZL-VL-F

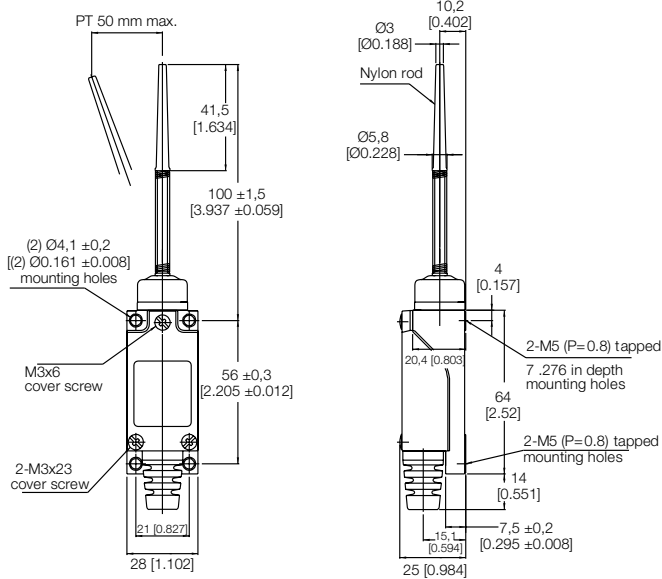


Figure 8. SZL-VL-H

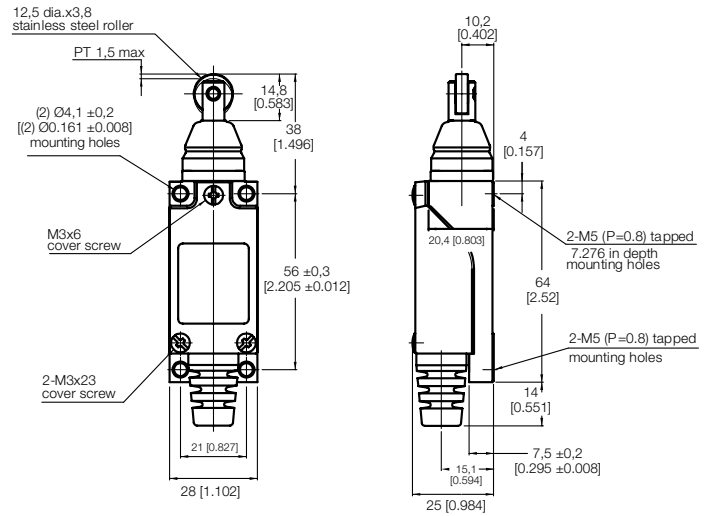
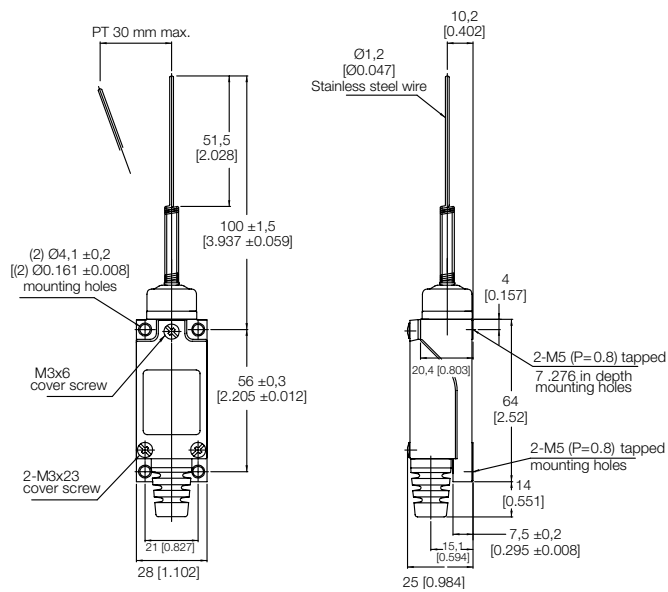


Figure 7. SZL-VL-G



# SZL-VL Series

## 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)

### **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.**

## 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 it 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.**

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