



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## PRODUCT TYPES

### ■ Lever position: Standard

Actuator	Operating Force OF, Max.	Contact form	
		SPST-NC	SPST-NO
Pin plunger	0.50N	AV6202643	AV6302643
	1.50N	AV6205643	AV6305643
Hinge lever	0.20N	AV6222643	AV6322643
	0.50N	AV6225643	AV6325643
Simulated roller lever	0.20N	AV6242643	AV6342643
	0.50N	AV6245643	AV6345643
Roller lever	0.20N	AV6252643	AV6352643
	0.50N	AV6255643	AV6355643

### ■ Lever position: Backward

Actuator	Operating Force OF, Max.	Contact form	
		SPST-NC	SPST-NO
Hinge lever	0.35N	AV622212643	AV632212643
	1.00N	AV622512643	AV632512643
Simulated roller lever	0.35N	AV624212643	AV634212643
	1.00N	AV624512643	AV634512643
Roller lever	0.35N	AV625212643	AV635212643
	1.00N	AV625512643	AV635512643

## SPECIFICATIONS

### ■ Contact rating

Contact	Contact voltage	Resistive load (cos φ ≈ 1)
Au-clad double layer contact	30V DC	0.1A
	5V DC	1mA Low-level circuit rating

### ■ Characteristics

Item	Specifications
Expected life	Mechanical (OT max.)
	Electrical (Rated load OT max.)
Insulation resistance	
Dielectric strength	
Contact resistance (initial)	
Vibration resistance (malfunction vibration resistance)	
Shock resistance (malfunction shock resistance)	
Connector insertion force	
Connector holding force	
Connector removal operating times	
Allowable operating speed (No load)	
Max. operating cycle rate (No load)	
Ambient temperature	
Unit weight	
Contact specifications	Contact material
Protection grade	

### ■ Operating characteristics

#### 1) Lever position: Standard

Actuator	Operating Force OF, Max.	Release Force RF, Min.	Pretravel PT, Max.	Movement Differential MD, Max.	Overtravel OT, Min.	Operating Position OP
Pin plunger	0.50N	0.04N	0.6mm	0.1mm	0.4mm	8.4±0.3mm
	1.50N	0.25N				
Hinge lever	0.20N	0.02N	2.6mm	0.8mm	1.2mm	10.0±0.8mm
	0.50N	0.06N				
Simulated roller lever	0.20N	0.02N	2.6mm	0.8mm	1.2mm	12.2±0.8mm
	0.50N	0.06N				
Roller lever	0.20N	0.02N	2.6mm	0.8mm	1.2mm	15.7±0.8mm
	0.50N	0.06N				

2) Lever position: Backward

Actuator	Operating Force OF, Max.	Release Force RF, Min.	Pretravel PT, Max.	Movement Differential MD, Max.	Overtravel OT, Min.	Operating Position OP
Hinge lever	0.35N	0.03N	1.4mm	0.6mm	0.7mm	9.2±0.6mm
	1.00N	0.10N				
Simulated roller lever	0.35N	0.03N	1.4mm	0.6mm	0.7mm	11.3±0.6mm
	1.00N	0.10N				
Roller lever	0.35N	0.03N	1.4mm	0.6mm	0.7mm	14.9±0.6mm
	1.00N	0.10N				

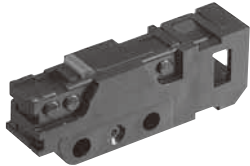
**DIMENSIONS**

(Unit: mm) General tolerance: ±0.25

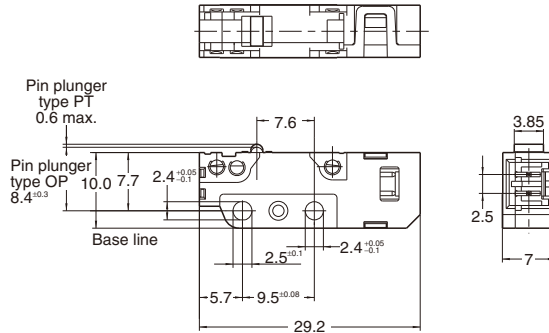
The CAD data of the products with a **CAD Data** mark can be downloaded from: <http://industrial.panasonic.com/ac/e/>

■ Pin plunger

**CAD Data**



External dimensions

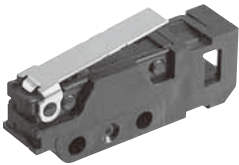


Pretravel PT, Max.	0.6mm
Movement Differential MD, Max.	0.1mm
Overtravel OT, Min.	0.4mm
Operating Position OP	Distance from mounting hole 8.4±0.3mm

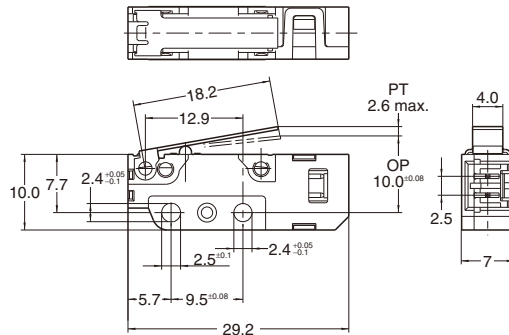
■ Hinge lever

Lever position: Standard

**CAD Data**



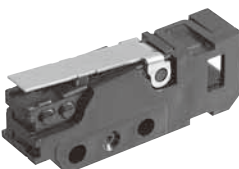
External dimensions



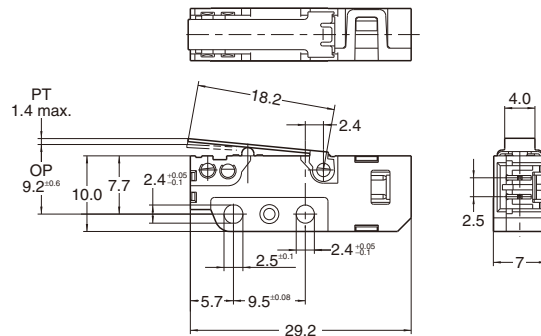
Pretravel PT, Max.	2.6mm
Movement Differential MD, Max.	0.8mm
Overtravel OT, Min.	1.2mm
Operating Position OP	Distance from mounting hole 10.0±0.8mm

Lever position: Backward

**CAD Data**



External dimensions



Pretravel PT, Max.	1.4mm
Movement Differential MD, Max.	0.6mm
Overtravel OT, Min.	0.7mm
Operating Position OP	Distance from mounting hole 9.2±0.6mm

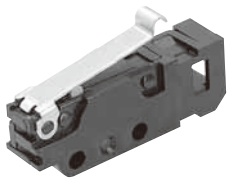
# AV6 (CS) Subminiature Switches

**!** Partly to Be Discontinued: Agency standard type  
Last time buy: September 30, 2016

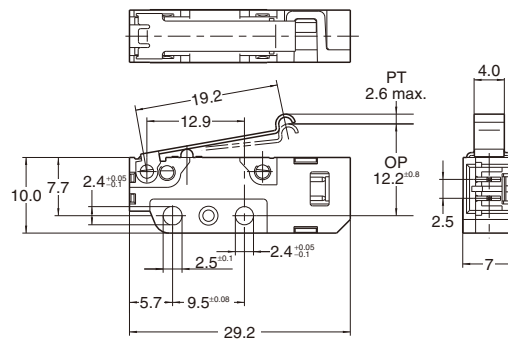
## ■ Simulated roller lever

Lever position: Standard

### CAD Data



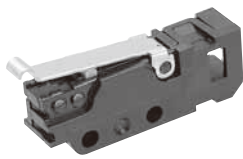
### External dimensions



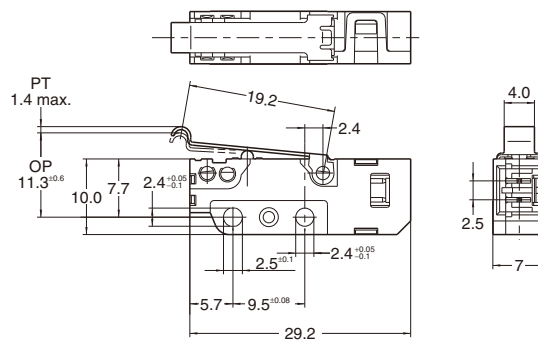
Pretravel PT, Max.	2.6mm	
Movement Differential MD, Max.	0.8mm	
Overtravel OT, Min.	1.2mm	
Operating Position OP	Distance from mounting hole	12.2±0.8mm

Lever position: Backward

### CAD Data



### External dimensions

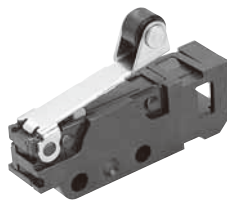


Pretravel PT, Max.	1.4mm	
Movement Differential MD, Max.	0.6mm	
Overtravel OT, Min.	0.7mm	
Operating Position OP	Distance from mounting hole	11.3±0.6mm

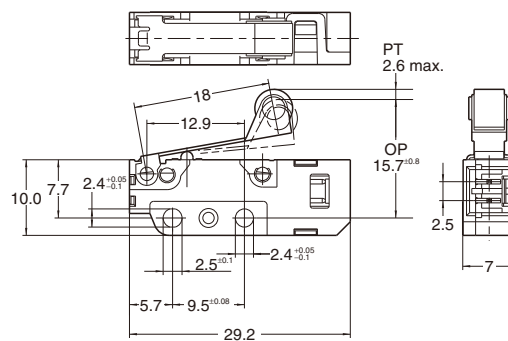
## ■ Roller lever

Lever position: Standard

### CAD Data



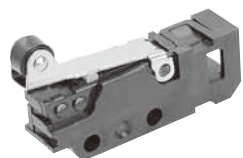
### External dimensions



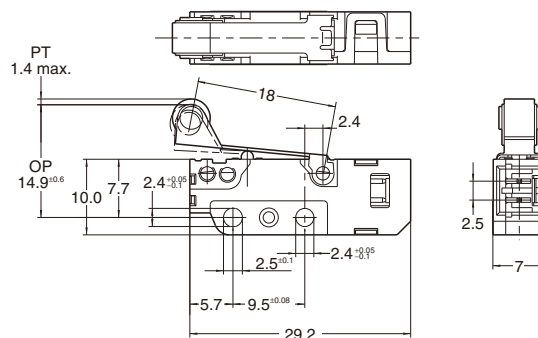
Pretravel PT, Max.	2.6mm	
Movement Differential MD, Max.	0.8mm	
Overtravel OT, Min.	1.2mm	
Operating Position OP	Distance from mounting hole	15.7±0.8mm

Lever position: Backward

### CAD Data



### External dimensions



Pretravel PT, Max.	1.4mm	
Movement Differential MD, Max.	0.6mm	
Overtravel OT, Min.	0.7mm	
Operating Position OP	Distance from mounting hole	14.9±0.6mm



## CAUTIONS FOR USE

### ■ Fastening of the switch body

- 1) To secure the switch, please use an M2.3 screw on a flat surface and tighten using a maximum torque of 0.29 N·m. It is recommended that both flat metal washer and spring washers be used with the screws and adhesive be applied to lock the screws to prevent loosening of the screws.
- 2) Be sure to maintain adequate insulating clearance between each terminal and ground.
- 3) When the operation object is in the free position, force should not be applied directly to the actuator or pin plunger. Also force should be applied to the pin plunger from vertical direction to the switch.
- 4) In setting the movement after operation, the over-travel should be set more than 70% as a standard. With the lever type, do not apply excessive force in the direction opposite to the movement, or from the horizontal direction.

### ■ About the connector

- 1) The connector on the AV6 (CS) switch is designed to fit with the XA connector produced by JST Mfg. Co., Ltd. Do not use any connector other than the specified connector, or solder the terminals directly.
- 2) Make sure leads are arranged so that no constant force is applied to them when the connectors are mated.
- 3) Keep the connector straight when inserting it. If it is inserted at an angle, it may snag near the entrance, or it may be inserted too forcefully.
- 4) Problems thought to be caused by the XA connector, which is specified as conforming to the AV6 (CS) switch connector, are not covered by the warranty. Please contact JST Mfg., Co., Ltd. and request cooperation in resolving the problem.

### ■ Selection of switch

Please make your selection so that there will be no problems even if the operating characteristics vary up to  $\pm 20\%$  from the standard values.

### ■ Environment

Avoid using and storing these switches in a location where they will be exposed to corrosive gases, silicon, or high dust levels, all of which can have an adverse effect on the contacts.

### ■ Precautions concerning circuits

The AV6 (CS) switch is designed specifically for low-voltage, low-current loads. Avoid using it at loads that exceed the rating load.

### ■ Quality check under actual loading conditions

To assure reliability, check the switch under actual loading conditions. Avoid any situation that may adversely affect switching performance.