

# ZMV Series Mini Size Snap-acting Switches

**NEW**



UL61058-1



## Features/Benefits

- Compact size – ideal when space is limited
- High contact reliability to support from low range switching loads
- Adequate stroke setting for reliable & precision ON or OFF switching
- Pin plunger version can be actuated from an angle
- Internal spring design return – ensures the actuator is restored to the same position every time. These features yield consistent operation over the long life of these switches.
- IP67 for standalone switch except the metal terminal part; Full IP67 protection when potted with wire version
- RoHS compatible & compliant

## Typical Applications

- Automotive: door latch, seat position detection, EV charging
- Medical
- Industrial
- Home appliances
- IoT devices

## Specifications

CONTACT RATING: 3A 12VDC @ 100,000 cycles min.  
 3A 24VDC @ 50,000 cycles min.  
 3A 125/250VAC @ 10,000 cycles min.  
 0.01A 12/24VDC @ 1,000,000 cycles min.  
 0.01A 125/250VAC @ 1,000,000 cycles min.

MECHANICAL LIFE: 1,000,000 cycles min.  
 INSULATION RESISTANCE: 100 MΩ min.  
 DIELECTRIC STRENGTH: Min. 500VAC (50-60Hz)/minute between Live Parts  
 OPERATING TEMPERATURE: -40°C to 85°C  
 OPERATING FORCE: 150 gf max.

## Materials

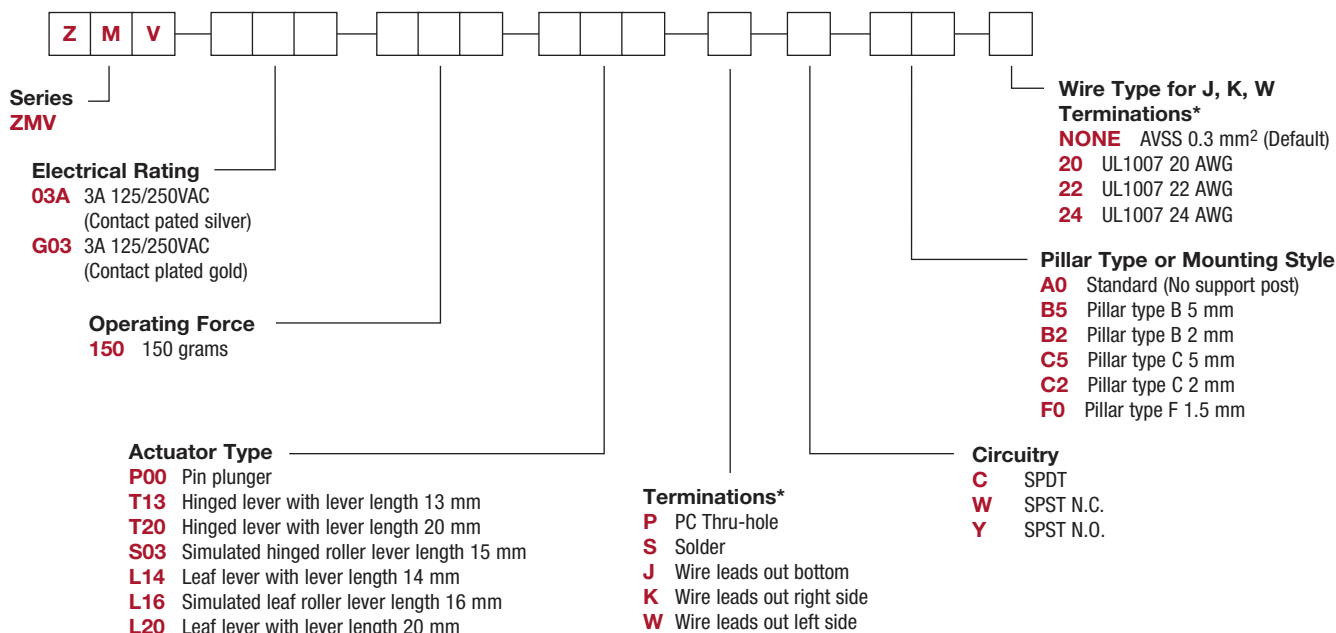
CASE: Nylon  
 COVER: Nylon  
 ACTUATOR BUTTON: PET+POM  
 MOVABLE CONTACTS: AG alloy (Gold plated if selected)  
 STATIONARY CONTACTS: AG alloy (Gold plated if selected)  
 TERMINALS: Brass

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

⚠ Sealing cap could possibly be damaged in case of contacts with oils or greases. Please try to avoid direct contact. If more support is needed, consult Customer Service Centre.

## Build-A-Switch

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.



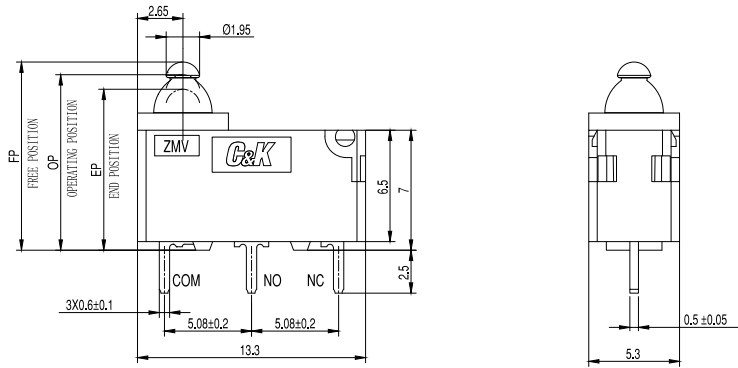
Snap-acting

NEW

# ZMV Series Mini Size Snap-acting Switches

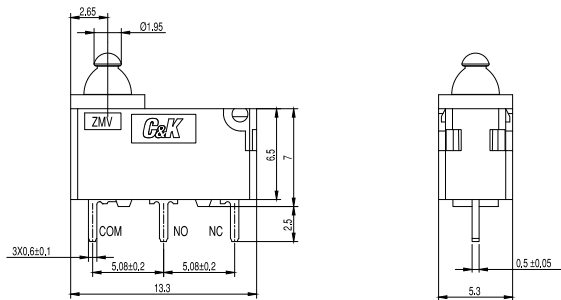
## SERIES

### ZMV MINI SIZE SNAP-ACTING SWITCHES

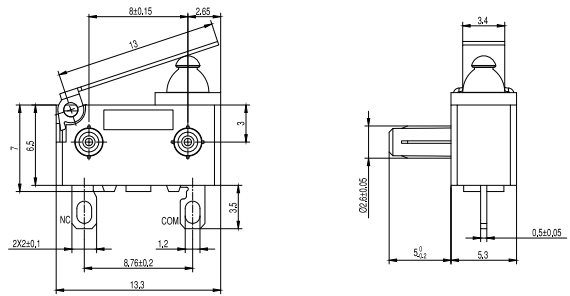


## ACTUATOR TYPE

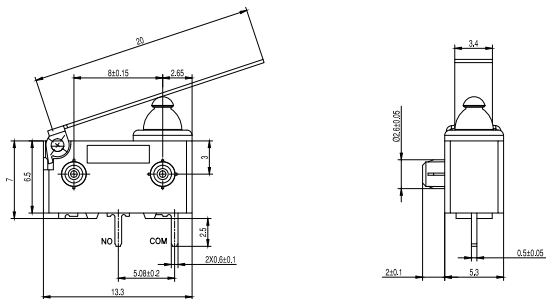
### P00 PIN PLUNGER



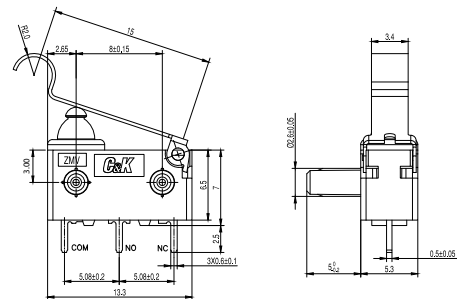
### T13 HINGED LEVER WITH LEVER LENGTH 13 MM



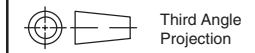
### T20 HINGED LEVER WITH LEVER LENGTH 20 MM



### S03 SIMULATED HINGED ROLLER LEVER LENGTH 15 MM



Snap-acting



Third Angle  
Projection

Dimensions are shown: mm  
Specifications and dimensions subject to change

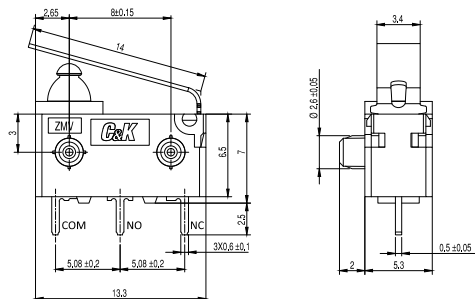


# ZMV Series Mini Size Snap-acting Switches

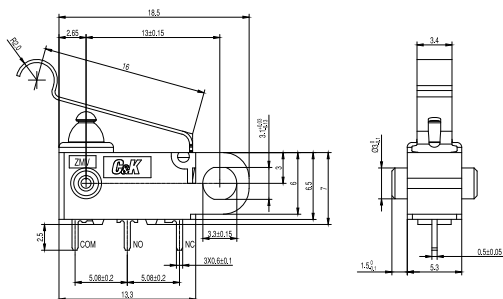
**NEW**

## ACTUATOR TYPE

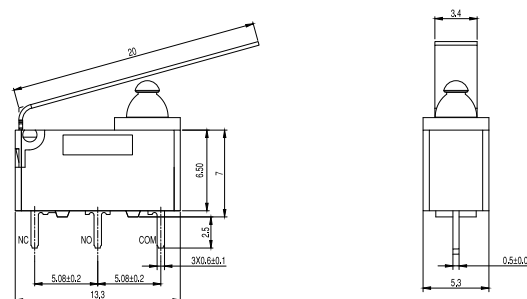
**L14** LEAF LEVER WITH LEVER LENGTH 14 MM



**L16** SIMULATED LEAF ROLLER LEVER LENGTH 16 MM



**L20** LEAF LEVER WITH LENGTH 20 MM



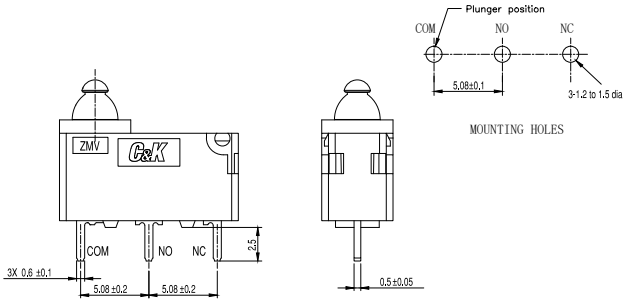
Snap-acting

NEW

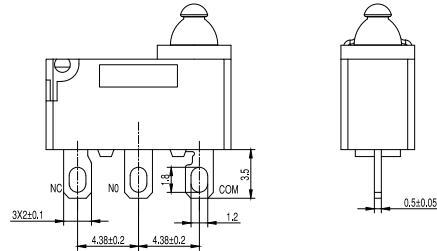
# ZMV Series Mini Size Snap-acting Switches

## TERMINATIONS

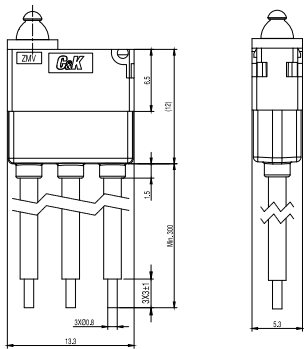
### P PC THRU-HOLE



### S SOLDER

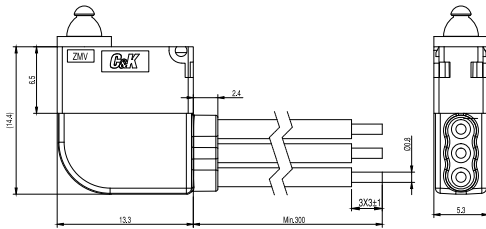


### J WIRE LEADS OUT BOTTOM



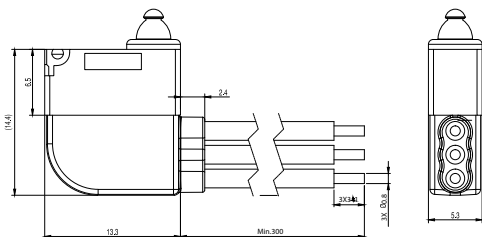
Default wire:  
 COM: AVSS 0.3 MM<sup>2</sup> BLACK OR EQUIVALENT  
 NO: AVSS 0.3 MM<sup>2</sup> BLUE OR EQUIVALENT  
 NC: AVSS 0.3 MM<sup>2</sup> GRAY OR EQUIVALENT

### K WIRE LEADS OUT RIGHT SIDE



Default wire:  
 COM: AVSS 0.3 MM<sup>2</sup> BLACK OR EQUIVALENT  
 NO: AVSS 0.3 MM<sup>2</sup> BLUE OR EQUIVALENT  
 NC: AVSS 0.3 MM<sup>2</sup> GRAY OR EQUIVALENT

### W WIRE LEADS OUT LEFT SIDE



Default wire:  
 COM: AVSS 0.3 MM<sup>2</sup> BLACK OR EQUIVALENT  
 NO: AVSS 0.3 MM<sup>2</sup> BLUE OR EQUIVALENT  
 NC: AVSS 0.3 MM<sup>2</sup> GRAY OR EQUIVALENT



Snap-acting

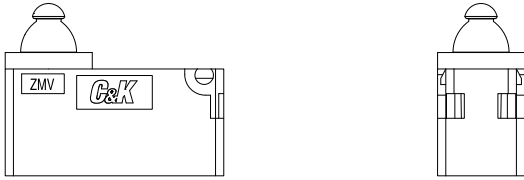


# ZMV Series Mini Size Snap-acting Switches

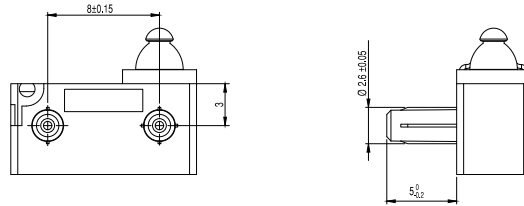
**NEW**

## PILLAR TYPE OR MOUNTING STYLE

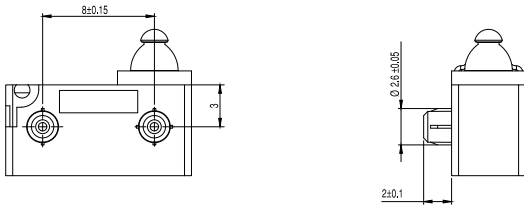
**A0** STANDARD (NO SUPPORT POST)



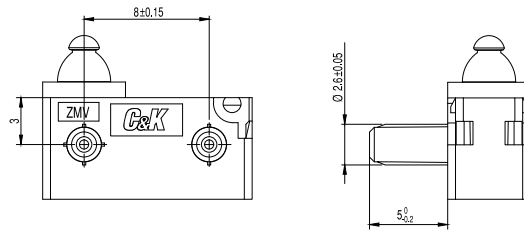
**B5** PILLAR TYPE B 5 MM



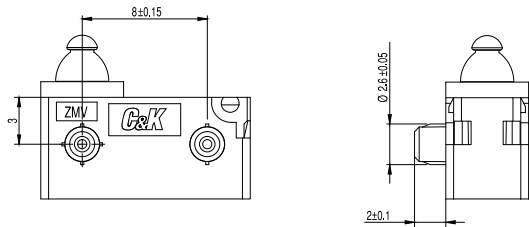
**B2** PILLAR TYPE B 2 MM



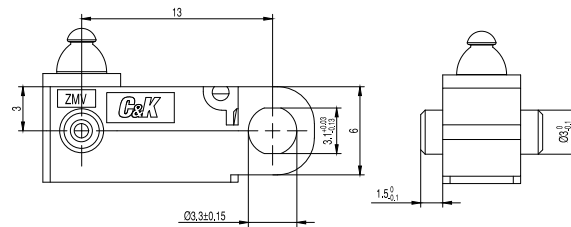
**C5** PILLAR TYPE C 5 MM



**C2** PILLAR TYPE C 2 MM



**F0** PILLAR TYPE F 1.5 MM

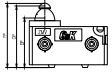
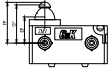
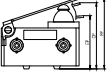
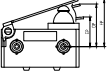
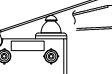
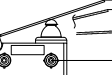

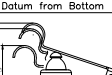

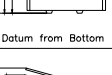



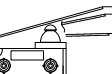


Snap-acting

**NEW**

# ZMV Series Mini Size Snap-acting Switches

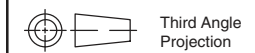
## SWITCH CHARACTERISTICS

SWITCH TYPE	PART SUFFIX	OF Max (gf)	FP Max (mm)	OP (mm)	EP Min (mm)	OT Min (mm)	MD Max (mm)	RF Min (gf)
ZMVXXX150P00XXXX	 Datum from Bottom	150	11.2	10.4±0.2	9.1	1.1	0.25	20
	 Datum from Centre		7.2	6.4±0.2	5.1			
ZMVXXX150T13XXXX	 Datum from Bottom	150	12.8	11.5±0.5	10	1.0	0.5	13
	 Datum from Centre		8.8	7.5±0.5	6			
ZMVXXX150T20XXXX	 Datum from Bottom	95	15.5	13.3±0.8	11	1.5	0.8	6
	 Datum from Centre		11.5	9.3±0.8	7			
ZMVXXX150S03XXXX	 Datum from Bottom	120	16.5	15.2±0.5	13.5	1.2	0.5	10
	 Datum from Centre		12.5	11.2±0.5	9.5			
ZMVXXX150L14XXXX	 Datum from Bottom	220	13.3	11.4±0.5	9.8	1.1	0.5	38
	 Datum from Centre		9.3	7.4±0.5	5.8			
ZMVXXX150L16XXXX	 Datum from Bottom	200	16.5	14.8±0.5	12.9	1.4	0.5	38
	 Datum from Centre		12.5	10.8±0.5	8.9			
ZMVXXX150L20XXXX	 Datum from Bottom	168	15.5	12.2±0.8	9.9	1.5	0.8	30
	 Datum from Centre		11.5	8.2±0.8	5.9			

OF: Operating force  
EP: End position  
RF: Release force

FP: Free position  
OT: Overtravel

OP: Operating position  
MD: Differential motion



Third Angle  
Projection

Dimensions are shown: mm  
Specifications and dimensions subject to change



Snap-acting