

G303 Series

Subminiature Sealed Micro Switch



■ Features

- Designed For Water and Dust Tight (IP67)
- Small Compact Size
- Global Safety Approvals
- Long Life and High Reliability
- Variety of Levers
- Wide Range of Wiring Terminals
- Widely used in Automotive Electronics, Appliance and Industrial Control Designs

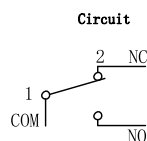
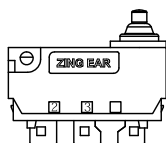
■ Application

- ◆ Car
- ◆ Electric Tooth Brush
- ◆ Air-Conditioner
- ◆ Toys
- ◆ Communication
- ◆ Bicycle

■ Parameters

Rating		0. 1A, 125/250VAC; 3A/12VDC; 0. 1A/48VDC; μ 1E5
Operatng Frequency	Electrical	0. 1A-120cycles/minute; 3A-10~30 cycles/minute
	Mechanical	120 Cycles/minute
Contact Resistance(Initiative)		100m Ω Max (without wire type)
Insulation Resistance (at500VDC)		100m Ω Min
Vibration Durability		10~55Hz, move0. 75mm (p-p)
Dielectric Strength		500VAC (50~60Hz)
Storage Temperature		-40° C~+85° C
Storage Humidity		85%RHMax
Service Life	Electrical	Min. 100, 000 cycles (Depend on part NO.)
	Mechanical	Min. 500, 000 cycles

■ Circuit



G3 Series Micro Switch Ordering Instruction

G3	03	130	S	00	A	
Switch Type	Electrical Rating	Operating Force at pin Plunger, Max	Terminal Style	Lever Type		Circuit Code
G3	ENEC:0.1A 125/250VAC 48VDC:3A 12VDC u IES UL: 0.1A 125/250VAC 48VDC:3A 12VDC	130 130gf Max. employ 130# Spring	E Molded lead wires downwards.	00 No lever Pin Plunger	31 Simulated Roller (Use for A type, A1 type, M3 type)	A SPDT
			G Molded lead wire on left side(plunger side)	01 Leaf lever (Use for A type, A1 type, M3 type)	35 35# lever (Use for A type, A1 type, M3 type)	B SPST-NC
			F Molded lead wires on right side(plunger side)	02 Straight Leaf lever	36 36# lever (Use for A type, A1 type, M3 type)	C SPST-NO
			S Solder terminals	03 03# staight lever(Only for C type case)	37 37# lever (Use for A type, A1 type with PHA waterproof case)	
			K Long solder terminals	04 04# lever (Use for A type, A1 type, M3 type)	38 38# lever (Use for C1, C2 type)	
			N None -hole short Solder terminals	05 Simulated Roller (Use for A type, A1 type, M3 type)	41 41# lever (Use for A type, A1 type, M3 type)	
			P Straight PCB terminals (0.6mm width,length3.5mm.) The base has a boss	08 Straight Leaf lever (Use for A2 type)	- Other	
			R Right side PCB terminals	09 Mini Simulated Roller lever (Use for A type, A1 type, M3 type)		
			L Left side PCB terminals	10 10# lever (Use for A type, A1 type with PHA waterproof case)		
			I Big Solder terminals	13 13# lever(Only for I type case)		
			J Left Right straight PCB terminals	15 Upside down simulated roller lever (Use for A type, A1 type, M3 type)		
			A LeftSide Fork type terminals	21 21# staight lever(Only for C type case)		
			B Right Side Fork type terminals	22 22# lever (Use for A type, A1 type, M3 type)		
			Q 2.5 type terminals (Terminal wide 2.5mm , length 7.5mm)	23 23# lever (Only for CM3 type case)		
			D 2.5 type 2#terminals(Terminal Wide 2.5mm,length 5.15mm)	25 25# lever (Use for A type, A1 type, M3 type)		
				28 28# lever (Use for A type, A1 type, M3 type)		

1		A		E	A	280	TXXX
Shape and Posts		Posts Dimension		AWG Type (for Wire type only)	AWG Number (For Wire type only)	Wires length	Custom code
1	A type no post	28	A1 type no post			300mm length standard lead wires	General Type
2	A type leftside posts	29	A1 typeleft side posts	M 18# Only applicable to bottom outlet switch	A UL1007	280 280mm length	TIX X Customized according to customer requirements, unified in the technician login, the custom code is T+serial number, such as: T001
3	A type rightside posts	30	A1 type rightside posts	B 20# Only applicable to A type, A1 type W3 type bottom outlet switch, C type out of the two wire switch	C UL1430	... Other	... Other
4	B type no post	31	A1 type two sides posts	F 22#	D UL1061		
5	B type leftposts	47	CI M3 type posts	G 24#	F AVSS		
6	B type rightside posts	48	A2 typeposts For use with wire switch	H 26#	L FLRY-A		
7	M3 type posts	49	A2 typeleft posts For use with wire switch	I 28#	... Other		
8	A type two sides posts	50	A2 type right posts For use with wire switch	J	... Other		
9	B type two sides posts	51	A2 type Double location column For use with wire switch				
12	CI type two sides posts	52	A2 type no posts For use with wire switch				
13	CI type no post	53	A2 typeleft posts For use with wire switch				
14	CI type leftposts	54	A2 type right posts For use with wire switch				
15	CI type rightposts	55	A2 typeDouble location column For use with wire switch				
16	D1 type no post	...	Other				
17	D1 type leftside posts						
18	D1 type rightside posts						
19	D1 type two sides posts						

Code	Name	Meanings
PT	Pre-travel	Distance or angle which actuator travels from Free Position Operating Position.
OT	Over-travel	Distance or angle which actuator travels from Operating Position to Total Travel Position.
DT (or MD)	Movement- Differential	Distance or angle which actuator travels from Operating Position to Release Position.
RT	Release travel	The displacements of actuator from release position to free position.
OF	Operating Force	Amount of force applied to switch actuator to cause snap action contact from Free Position to Operating Position.
TF	Total Travel Force	Amount of force applied to actuator inorder to move from Operating Position to Total Travel Position.
RF	Release Force	Amount of force applied to switch actuator in order to move from Total Travel Position to Release Position.
TTP	Total Travel Position	Position at where actuator reaches Over-Travel limit.
OP	Operating Position	Position of actuator at where contacts snap from Free Position to Operating Position.
RP	Release Position	Position of actuator at where contacts snaps back from Operating Position to Free Position.
FP	Free Position	Position of actuator when no external force is applied.

■ Third View Projection

■ Lateral Actuation

<p>Note: All the view in the catalogue use this thridview projection</p>	<p>For G3-B type, if the operating plunger device is cam or sliding bevel, the max. bearable operating angle is 35°</p>


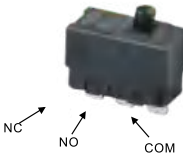

Basic Mounting Dimensions and Operating Characteristics

A shape	A1 shape
A2 shape	B shape
C1 shape	C1M3 shape
D1 shape	M3 shape

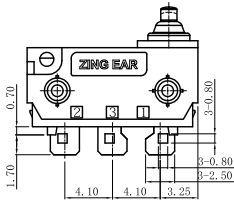
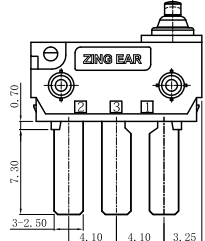
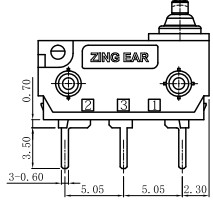
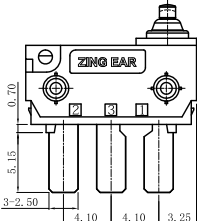
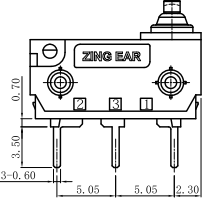
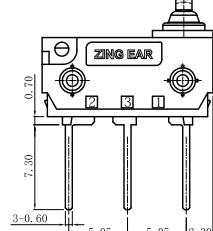
Shape and Posts

A type basic shape	A1 type basic shape	A2 type basic shape	B type basic shape	M3 type basic shape

■ Shape and Posts

C1 type basic shape	D1 type basic shape
 <p style="text-align: center;">C1 type</p>	 <p style="text-align: center;">D1 type</p>
C1M3 Shape	
	

■ Switch Terminal Type (Can be customized)

S Type	Q Type	K Type
		
D Type	P Type	J Type
		

P1 Type	I Type	R Type
L Type	A Type	B Type

■ Wires Leads Type

Wires leads to bottom	Wires leads to plunger side
	<p>COM:AVSS 0.3 mm² BLACK NO:AVSS 0.3 mm² BLUE NC:AVSS 0.3 mm² GRAY</p>
Wires leads to opposite to plunger side	
<p>COM:AVSS 0.3 mm² BLACK NO:AVSS 0.3 mm² BLUE NC:AVSS 0.3 mm² GRAY</p>	

■ Switch Lever Type (Can be customized)

Without lever	01# Lever	02# Lever
03# Lever	04# Lever	05# Lever
09# Lever	37# Lever	15# Lever
22#Lever	23#Lever	25#Lever

<p>28#Lever</p>	<p>35#Lever</p>	<p>36#Lever</p>
<p>38#Lever</p>	<p>41#Lever</p>	

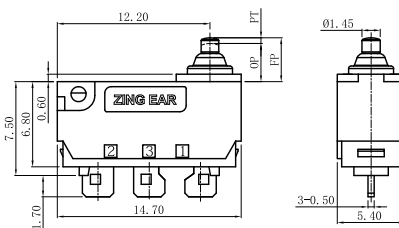
■ Posts Type (Can be customized)

<p>A shape standard type: Ø2.60X5.00mm posts</p>	<p>A1 shape standard type: Ø2.60X5.00mm posts</p>	<p>■ Posts Identification</p>
<p>A2 shape standard type: Ø2.60X5.00mm posts</p>	<p>B shape standard type: Ø2.60X5.00mm posts</p>	
<p>C1: Ø2.95X1.50mm posts</p>	<p>C1M3: Ø3.00X1.50mm posts</p>	<p>D1: Ø2.95X1.50mm posts</p>

M3:Ø2.95X1.50mm posts	A shape A type: Ø2.20X0.90mm posts	A shape B type: Ø2.50X1.50mm posts
A shape C type: Ø2.60X2.50mm posts	A shape F type: Ø2.60X3.80mm posts	A shape H type: Ø2.60X2.00mm posts

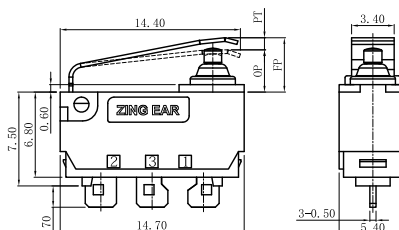
■ Dimensions and Operating Characteristics

◆ G3□□-□□□S00A1



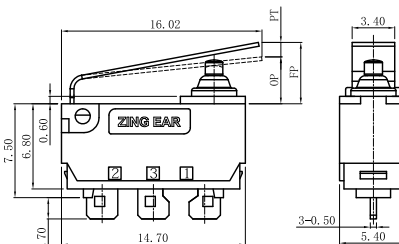
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-130	130	13	0.8	0.2	3.65	3.05±0.2

◆ G3□□-□□□S01A1



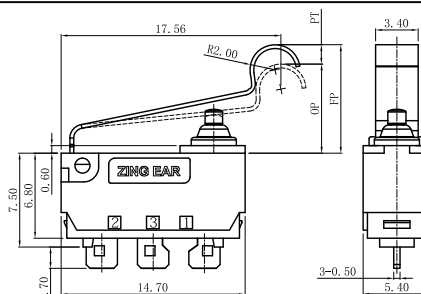
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
-130	220	30	3	0.5	5.7	3.4±0.5

◆ G3□□-□□□S02A1



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
-130	195	25	3.5	0.6	6.8	3.7±0.6

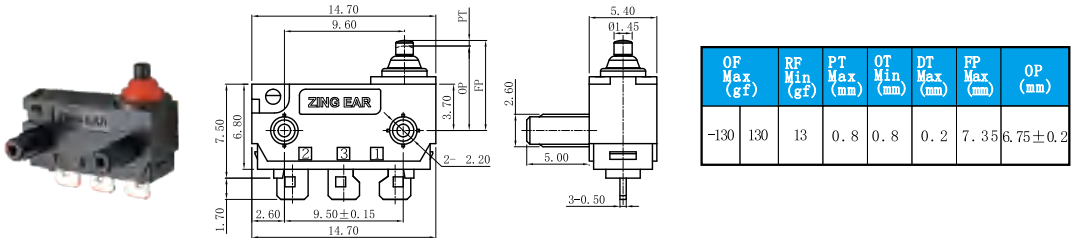
◆ G3□□-□□□S05A1



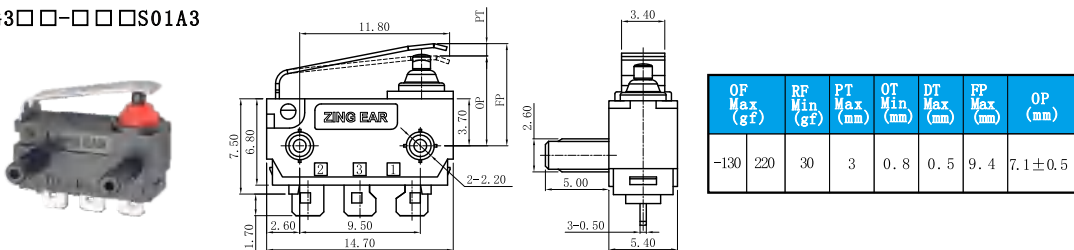
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
-130	180	20	3.8	0.7	9.8	7.0±0.7

■ Dimensions and Operating Characteristics

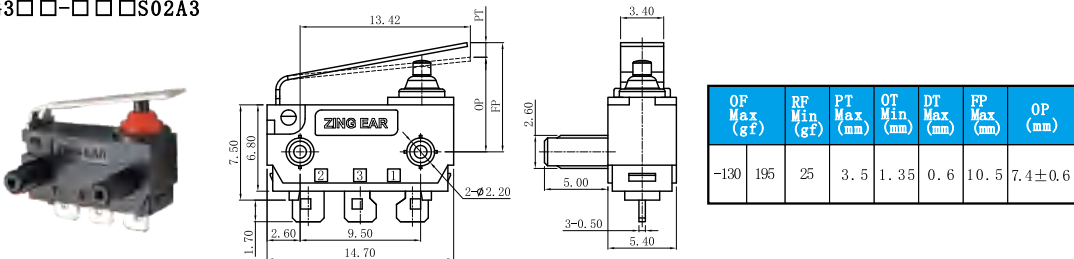
◆ G3□□-□□□S00A3



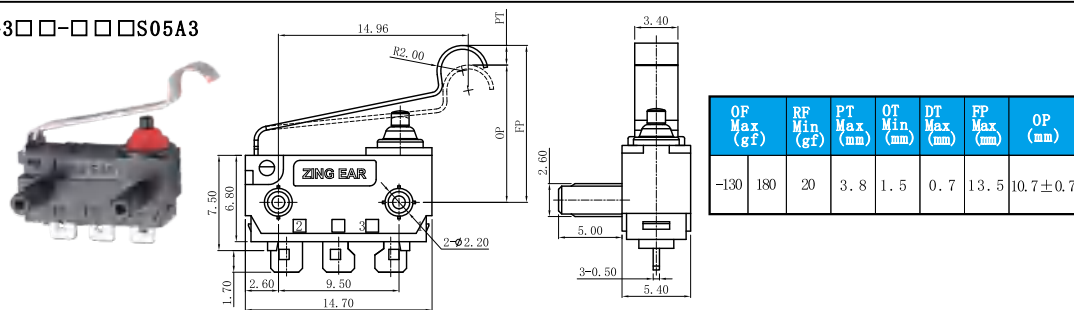
◆ G3□□-□□□S01A3



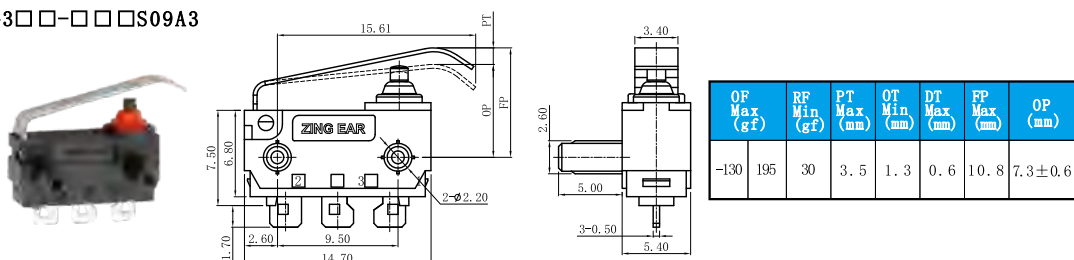
◆ G3□□-□□□S02A3



◆ G3□□-□□□S05A3

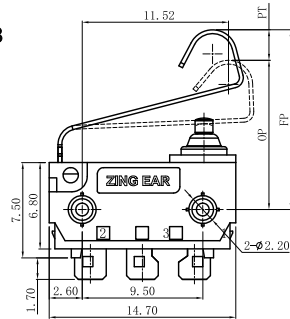


◆ G3□□-□□□S09A3



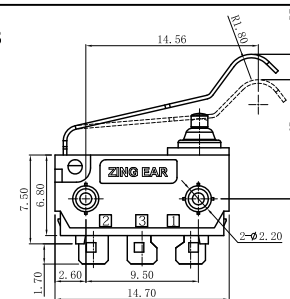
■ Dimensions and Operating Characteristics

◆ G3□□-□□□P15A3



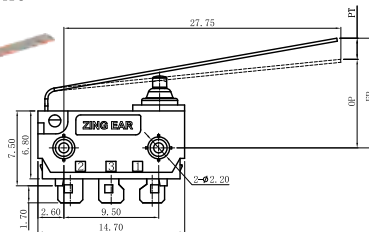
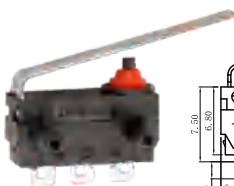
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	280	30	4	1.5	0.7	15.9	11.9±0.7

◆ G3□□-□□□P22A3



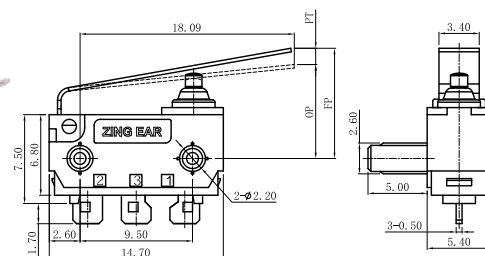
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	200	20	3.8	1.5	0.7	13.8	10.0±0.7

◆ G3□□-□□□S25A3



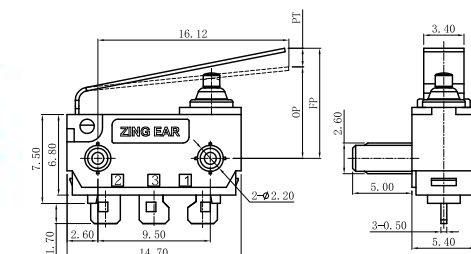
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	150	25	5.5	1.35	1.5	13	7.50±1.2

◆ G3□□-□□□S28A3



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	200	25	4.5	1.5	1	11.65	7.15±1.0

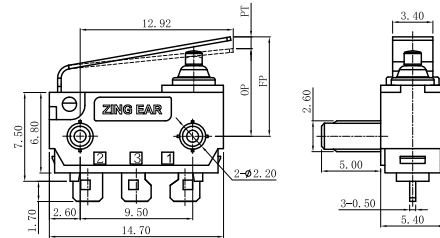
◆ G3□□-□□□S35A3



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	200	25	4.4	1.5	1	11.45	7.05±1.0

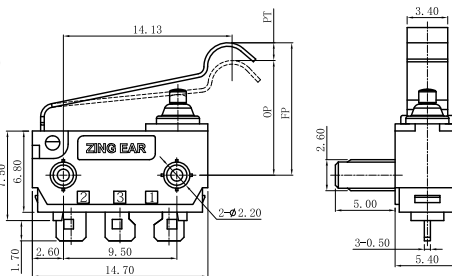
■ Dimensions and Operating Characteristics

◆ G3□□-□□□S36A3



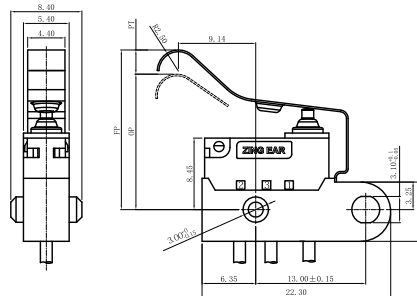
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	200	25	3.4	1.3	0.6	10.6	7.2±0.6

◆ G3□□-□□□P41A3



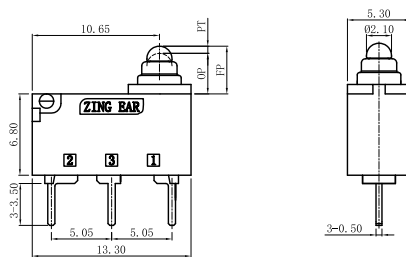
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	200	50	3.5	1.2	0.6	13	9.5±0.7

◆ G3□□-□□□E37C1



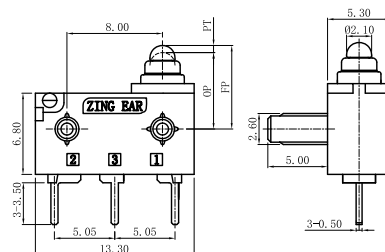
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	100	25	6	1.5	2	21	15±2.0

◆ G3□□-□□□S00A52



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	TTP	
-130	130	30	1.3	0.6	0.25	4.2	3.4±0.3	2.3

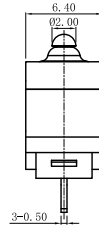
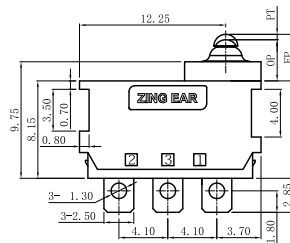
◆ G3□□-□□□P00A53



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	TTP	
-130	130	30	1.3	0.6	0.25	7.2	6.4±0.3	5.3

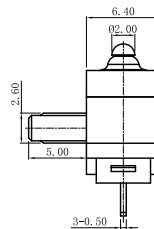
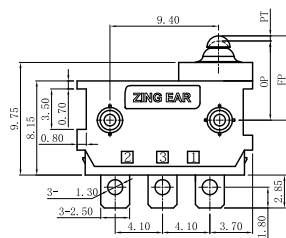
■ Dimensions and Operating Characteristics

◆ G3□□-□□□K00A4



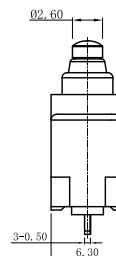
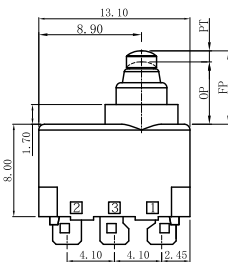
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
-130	130	13	0.8	0.8	0.2	4.1

◆ G3□□-□□□K00A6



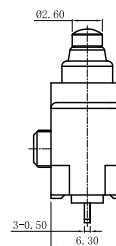
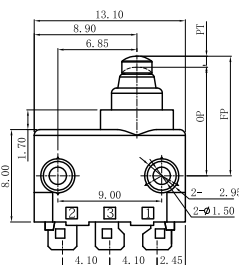
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-130	130	13	0.8	0.8	0.2	7.5

◆ G3□□-□□□S00A13



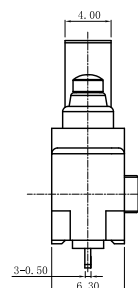
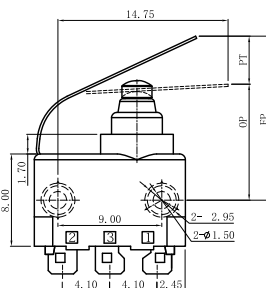
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
-130	180	20	1.5	0.5	0.25	6.35

◆ G3□□-□□□S00A15



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
-130	180	20	1.5	0.5	0.25	10.35

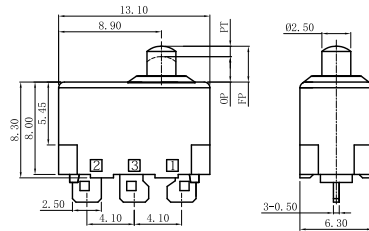
◆ G3□□-□□□S03A15



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
-130	250	50	5.5	0.5	1.1	15

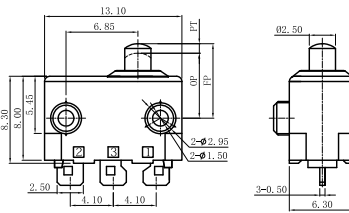
■ Dimensions and Operating Characteristics

◆ G3□□-□□□S00A16



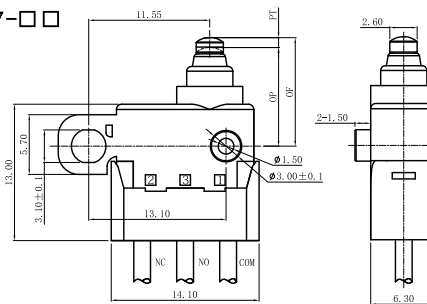
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	130	8	1.5	0.5	0.25	3.3	2.2±0.3

◆ G3□□-□□□S00A18



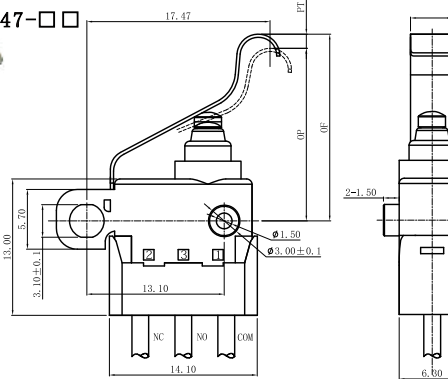
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	130	8	1.5	0.5	0.25	7.3	6.2±0.3

◆ G3□□-□□□E00A47-□□



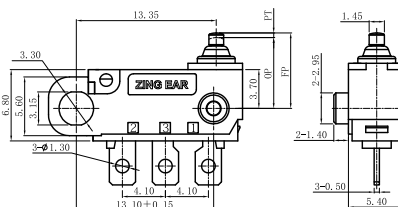
OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	TTP	
-130	200	20	1.5	0.5	0.25	10.4	9.4±0.3	8.4

◆ G3□□-□□□E23A47-□□



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	TTP	
-130	300	50	3.5	0.5	1.1	20	16.45±1.5	14.9

◆ G3□□-□□□K00A7



OF Max (gf)	RF Min (gf)	PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)	
-130	130	13	0.8	0.8	0.2	7.35	6.75±0.2