G5 Series-Basic Micro Switch

Basic Micro Switch

Features

- Tight configuration, small contact gap, snap action, high sensitivity and small operating travel
- Long life, high reliability
- Global safety approvals
- Variety of terminals
- Wide operating force (7gf~600gf)
- Wide Range Temperature Grade (-40° C~+150° C) , 200° Optional
- With optional PTI grade (175V , 250V, 600V)
- Variety of levers
- Widely used in appliances, electronic equipments, automatic machines, communication equipments, car electrics, apparatus and instrument, power tool etc

Application

- Home Appliance
- Electric Equipments
- Automatic Equipments
- Communication Equipments
- Car Electrics
- Apparatus and Instruments
- Power Tools

Parameters

Operating speed		0.1mm -1m/s (Related with actuator forms)
Operating frequency		Mechanical 60 cycles/min; Electrical 15 cycles/min.
Insulation resistance		≥100M Ω (500VDC)
Contact resistance (Initial value)		≤100m Ω
Voltage Resistance	Between each terminals of the same polarity	AC1000V, 50/60HZ, 1min.
	Between current-carrying metal part and ground. and between each terminal and non-current carring metal parts	AC1500V, 50/60HZ, 1min.
Vibration resistance		10-55HZ, 1.5mm Double amplitude
Shock resistance		Destruction: OF>1.0N: 1000m/s2 (approx. 100G) max. OF≤1.0N: 400m/s2 (approx. 40G) max. Destruction: OF>1.0N: 200m/s2 (approx. 20G) max. OF≤1.0N: 100m/s2 (approx. 10G) max.
Service Life		Mechanical ≥10,000,000 cycles or 1,000,000 cycles Electrical ≥50,000 cycles or 100,000 cycles
Unit Net Weight		Approx. 6.2g (No lever).

G5 Series Micro Switch Ordering Instruction

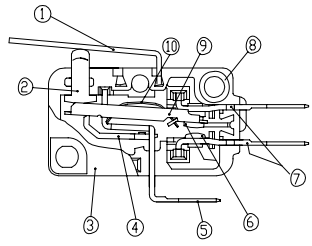
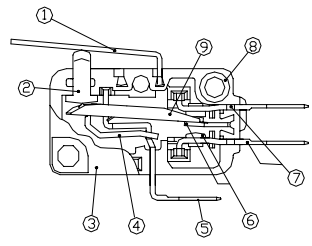
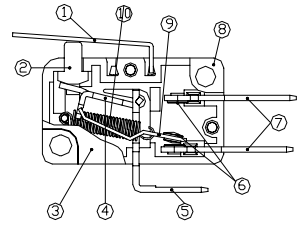
G5	T	16	C	Z	200	A	01	K	XX
Switch Type	Temperature grade	Electrical Rating	Terminal Type	Circuit Code	Operating Force at pin Plunger	Lever Position	Lever Type	Mounting Holes	Special Designator
G5 Series-Micro Switch G5 Door-Switch	S 25T85 Only for "05" rating Only)	05 ENEC/CQC: 0.1A 48VDC 0.1A 125/250VAC 5(2.5)A 125/250VAC UL/CUL: 0.1A 48VDC 0.1A 125/250VAC 5A 1/10HP 125/250VAC ("S" Temperature grade only) Only for C, C1, C2, E, E1, E2, D, D1, D2, S, S1, S2	C C1 C2 6.30x0.80mm 0.250"x0.032" Quick connect Terminals	Z SPDT	015 Only apply to G5S05, series.	No lever Pin Plunger	No lever Pin Plunger	Metric Ø3.1mm	Here means a special designator letter. Refer to products specifcation for detailed differences.
	T 25T125	08 ENEC/CQC: 8(10)A 250VAC UL/CUL: 10.1A 1/2HP 250VAC Above only for "T" temperature grade and switch of contact gap>3mm) and only for C2 and D2 terminals; "300"~"500" OF only	D D1 D2 4.80x0.80mm 0.187"x0.032" Quick Connect Terminals	P SPST-NO	025 25gf note: Only apply to G5S05, series.	A Far From Pin Plunger	01 Short Straight Lever	K USA Ø2.9mm	H Rast-5 250# terminal. N Rast-7 250# terminal. P Side PCB 250# terminal. A Contact gold plated.
	H 25T150	10 UL/CUL: 1A 30VDC 10A 1/2HP 125/250VAC Above only for "H" temperature grade) UL/CUL: 11A 1/3HP 125/250VAC 0.5A 125VDC 0.25A 250VDC 4A 125VAC 1L ENEC/CQC: 10(3)A 125/250VAC 25T125 M5E4 (Above only for "T" temperature grade C, C1, C2, E, E1, E2, D, D1, D2, F, F1 Terminal only.) 10(4)A 250V AC 25T85 u5E4 IP64 Only for G5F "IP64" waterproof grade	E E1 E2 4.80x0.50mm 0.187"x0.020" Quick Connect Terminals	C SPST-NC	050 50gf 0.49N Note: Only apply to G5S05, G5T10, series.	B Closer Pin Plunger	02 Std. Straight Lever	U Alloy base with inner mounting hole Only for G5D Door Switch	
	B 25T125 Only for "08" rating and contact gap>3mm	16 ENEC/CQC: 16(4)A 250VAC u5E4 UL/CUL: 16A 1/2HP 125/250VAC	L L1 L2 Left side PCB connect Terminals		100 100gf 0.98N Note: 16A and 22A Minimum OF is 100gf.	F Push Rod "G5D Door switch" only.	03 Long Straight Lever	V Alloy base with outer mounting hole Only for G5D Door Switch	
	F 25T85 IEC Only for rating "10"	22 ENEC/CQC: 22(8)A 250VAC u5E4 UL/CUL: 22A 1HP 125/250VAC	R R1 R2 Right side PCB connect Terminals		200 200gf 1.96N Note: G5S05, G5T10, G5W11 Series with maximum OF is 200gf; 26A, Min OF is 200gf	J Screw Push Rod "G5D Door switch" only.	04 Simulated Roller Lever	W Alloy base with two switches Only for G5D Door Switch	
		26 ENEC/CQC: 26(10)A 250VAC, u5E4 0.02A 250VAC, 25E3	S S1 S2 Solder Connect Terminals		300 300gf 2.94N Note: Not apply to G5S05, G5T10 Series		05 Roller Lever		
			T T1 T2 Screw Connect Terminals		400 400gf 3.92N Note: Not apply to G5S05, G5T10 Series		06 Long Roller Lever		
			P P1 P2 Straight PCB Terminals		500 500gf 4.90N "B" Termerature grade only.		... .		
			H H1 H2 Rast-5 Terminals		1800 1800gf 17.64N "G5D Door switch" only.		99 Special Lever		
			B2 6.30x0.80mm 0.250"x0.032" Connect the terminal						
			... Special connet						

Note: Letters only for Basic type Housing

Description:
Relationship between current and OF, the lowest OF for each rating
0.1A~0.5A: 15gf Min. Grade.
10A: 25gf Min. Grade.
16A: 100gf Min. Grade.
22A: 100gf Min. Grade. (don't recommend)

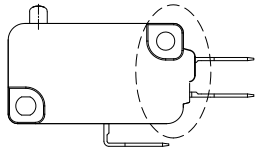
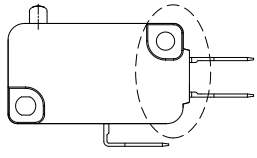
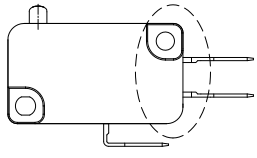
G5 Series | Mounting Hole, Lever Type, Circuit, Shape, Terminal Type

■Inner Construction

		
General Type	G5S05/G5T10	Contact Gap>3mm

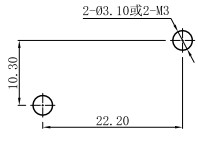
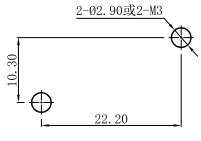
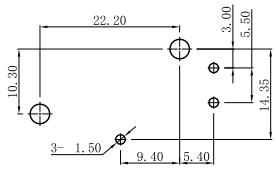
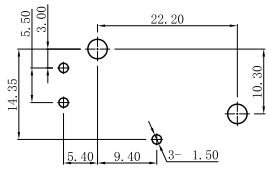
1. Lever
2. Plunger
3. Cover
4. Internal Lever
5. Common Terminal
6. Contacts
7. NO/NC Terminals
8. Case
9. Movable Plate
10. Spring

■Housing Outline Characteristics

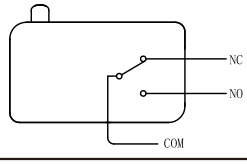
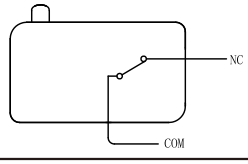
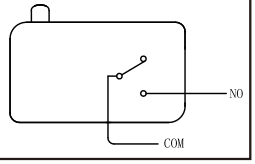
		
Basic Type Optional Terminal:C,D,E,L,R...	Flat Type Optional Terminal:C1,D1,E1,L1,R1...	Fully Flat Type Optional Terminal:C2,D2,E2,L2,R2...

■Mounting Hole Dimensions

(单位/Unit:mm)

Basic Type	K Type	Left Angled PCB Terminal	Right Angled PCB Terminal
			

■Circuit Configuration

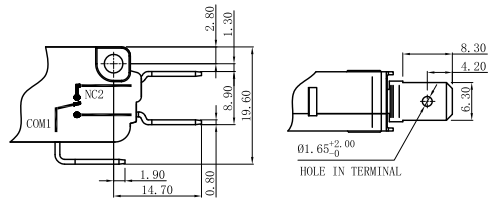
Common Terminal Type	"Z":SPDT	"C":SPST-NC	"P":SPST-NO
Common Terminal at bottom			

■Connect Terminal Dimensions

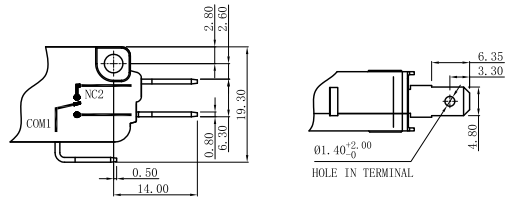
◆Terminals for Basic Type Housing

(Unit:mm)

C:
Basic Type Housing with
250#Quick Connect Terminals, T=0.8(C)



D:
Basic Type Housing with
187#Quick Connect Terminals, T=0.8(D)



E:
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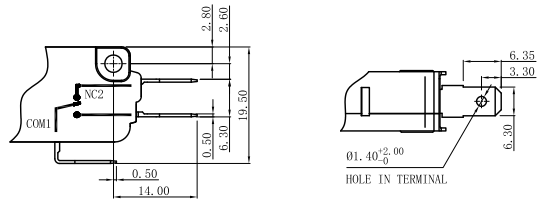

◆Terminals for Flat Type Housing

(Unit:mm)

C1:
Flat Type Housing with
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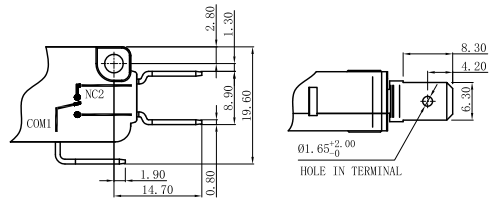

D1:
Flat Type Housing with
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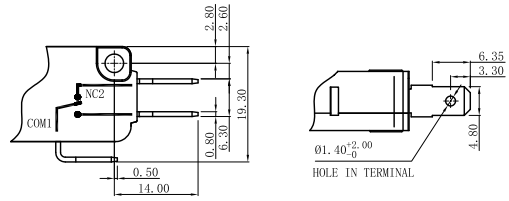

(Unit:mm)

E1:
Flat Type Housing with
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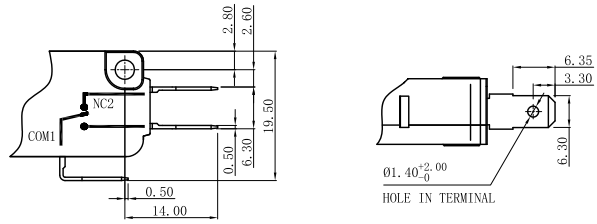
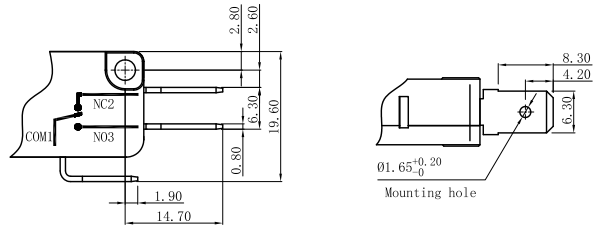


◆Terminals for Fully Flat Type Housing

(Unit:mm)

B2 Fully Flat Type
250#Quick Connect Terminals, T=0.8



C2
Fully Flat Housing with
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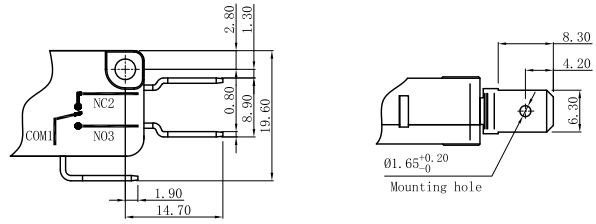

D2
Fully Flat Housing with
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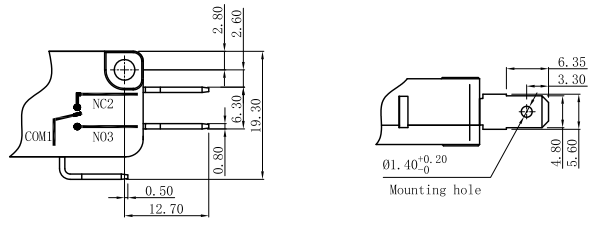

E2
Fully Flat Housing with
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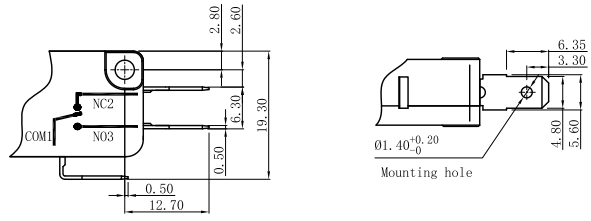
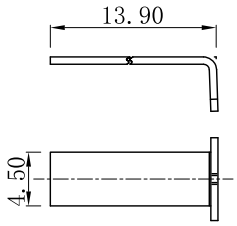
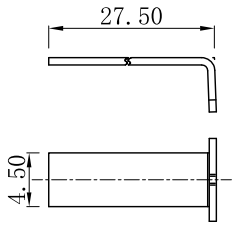


◆Other Levers

01#:
Lever01#



02#:
Lever02#



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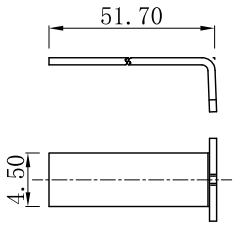
Lever03#



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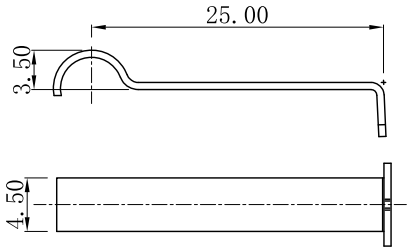
Lever04#



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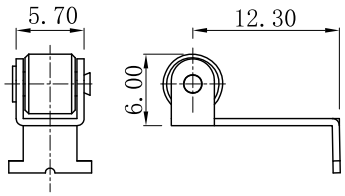

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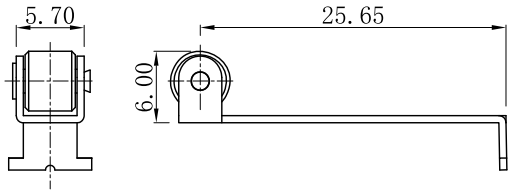

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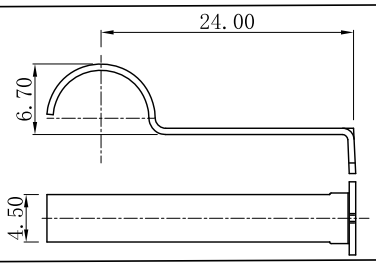

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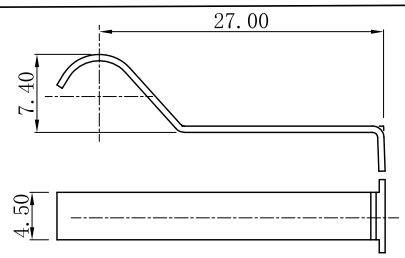

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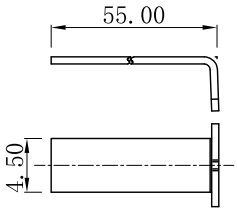

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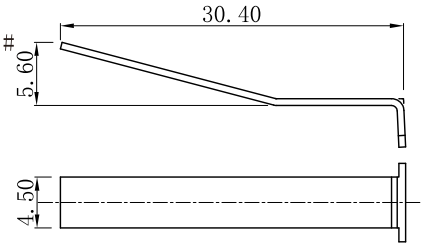
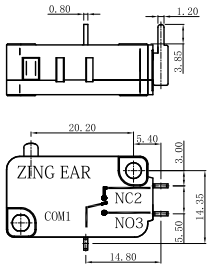
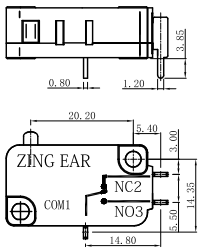


◆Other Terminal Type

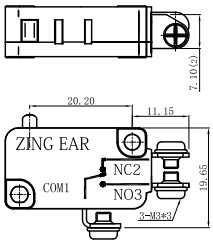
L Left Angled PCB Terminal



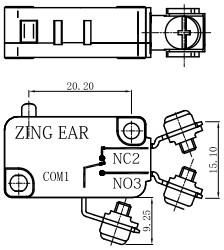
R Right Angled PCB Terminal



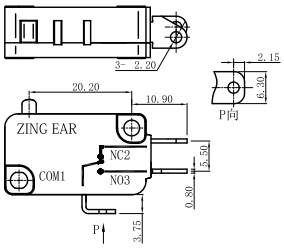
T Screw Terminal



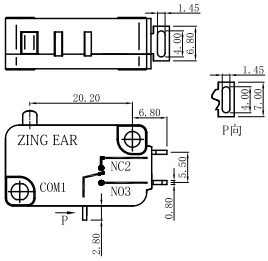
F Slant Screw Terminal



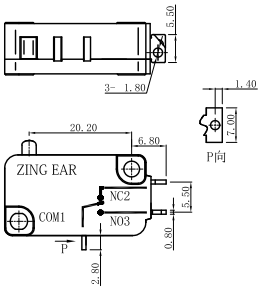
S Standard Solder Terminal



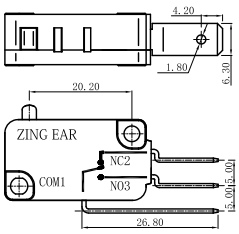
K Rectangle Hole Solder Terminal



M Short Solder Terminal



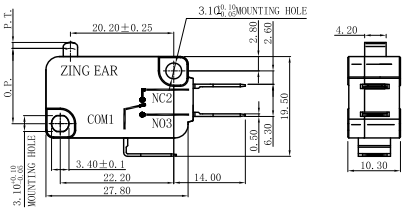
H1 RAST-5



◆Dimensions and Operating Characteristics

(Unit:mm)

◆ Pin Plunger

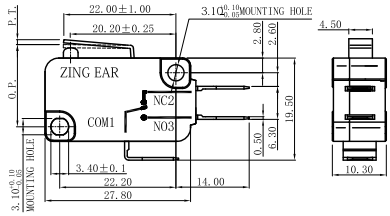


Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015	0.15	15	0.03	3	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z025	0.25	25	0.05	5	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z050	0.49	50	0.10	10	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z100	0.98	100	0.25	25	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z200	1.96	200	0.49	50	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z300	2.94	300	0.74	75	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z400	3.92	400	0.98	100	1.6	0.8	0.4	14.7±0.5

◆Dimensions and Operating Characteristics

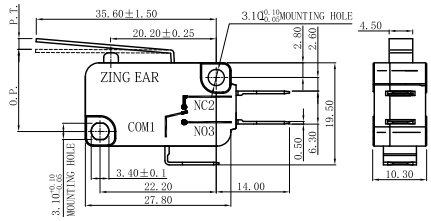
(Unit:mm)

◆ Short Straight Lever



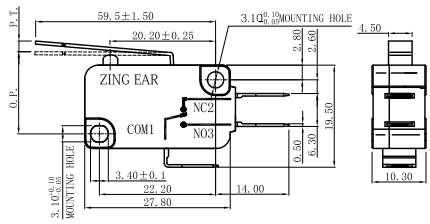
Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A01	0.15	15	0.03	3	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z025A01	0.25	25	0.05	5	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z050A01	0.49	50	0.10	10	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z100A01	0.98	100	0.25	25	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z200A01	1.96	200	0.49	50	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z300A01	2.94	300	0.74	75	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z400A01	3.92	400	0.98	100	1.6	0.8	0.4	15.3±0.5

◆ Standard Straight Lever



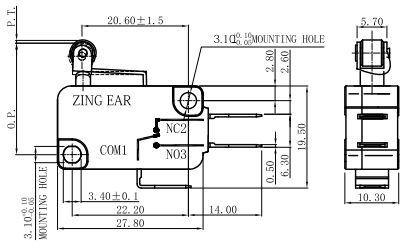
Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A02	0.10	10	0.02	2	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z025A02	0.15	15	0.02	2	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z050A02	0.29	30	0.05	5	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z100A02	0.59	60	0.10	10	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z200A02	1.18	120	0.20	20	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z300A02	1.77	180	0.29	30	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z400A02	2.35	240	0.39	40	3.2	1.3	1.2	15.3±0.5

◆ Long Straight Lever



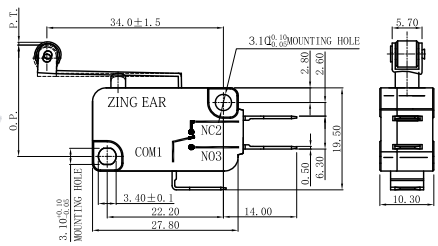
Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A03	0.07	7	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z025A03	0.10	10	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z050A03	0.15	15	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z100A03	0.29	30	0.05	5	6.4	2.6	2.4	15.3±3
G5□□□-E1Z200A03	0.59	60	0.10	10	6.4	2.6	2.4	15.3±3
G5□□□-E1Z300A03	0.88	90	0.15	15	6.4	2.6	2.4	15.3±3
G5□□□-E1Z400A03	1.18	120	0.20	20	6.4	2.6	2.4	15.3±3

◆ Short Roller Lever



Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A05	0.15	15	0.03	3	1.6	0.8	0.4	20.6±0.8
G5□□□-E1Z025A05	0.30	30	0.05	5	1.6	0.8	0.4	20.6±0.8
G5□□□-E1Z050A05	0.59	60	0.10	10	1.6	0.8	0.4	20.6±0.8
G5□□□-E1Z100A05	1.18	120	0.20	20	1.6	0.8	0.4	20.6±0.8
G5□□□-E1Z200A05	2.35	240	0.39	40	1.6	0.8	0.4	20.6±0.8
G5□□□-E1Z300A05	3.43	350	0.59	60	1.6	0.8	0.4	20.6±0.8
G5□□□-E1Z400A05	4.60	470	0.78	80	1.6	0.8	0.4	20.6±0.8

◆Long Roller Lever

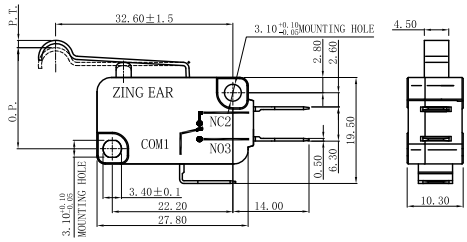


Part NO	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A06	0.10	10	0.02	2	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z025A06	0.15	15	0.02	2	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z050A06	0.29	30	0.05	5	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z100A06	0.59	60	0.10	10	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z200A06	1.18	120	0.20	20	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z300A06	1.77	180	0.29	30	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z400A06	2.35	240	0.39	40	3.2	1.3	1.2	20.6±1.6

◆Dimensions and Operating Characteristics

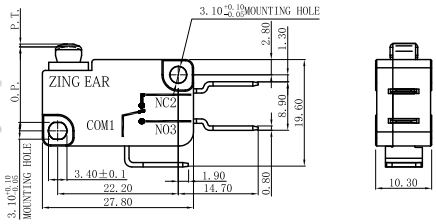
(Unit:mm)

◆ Simulated Roller Lever



Part NO	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A04	0.10	10	0.02	2	3.2	1.3	1.2	18.3±1.5
G5□□□-E1Z025A04	0.15	15	0.02	2	3.2	1.3	1.2	18.3±1.5
G5□□□-E1Z050A04	0.29	30	0.02	2	3.2	1.3	1.2	18.3±1.5
G5□□□-E1Z100A04	0.59	60	0.10	10	3.2	1.3	1.2	18.3±1.5
G5□□□-E1Z200A04	1.18	120	0.20	20	3.2	1.3	1.2	18.3±1.5
G5□□□-E1Z300A04	1.77	180	0.30	30	3.2	1.3	1.2	18.3±1.5
G5□□□-E1Z400A04	2.35	240	0.39	40	3.2	1.3	1.2	18.3±1.5

◆ IP64 Waterproof Switch



Part NO	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5F□□-C1Z300	4.92	500	1.96	200	1.6	0.8	0.4	15.0±0.5

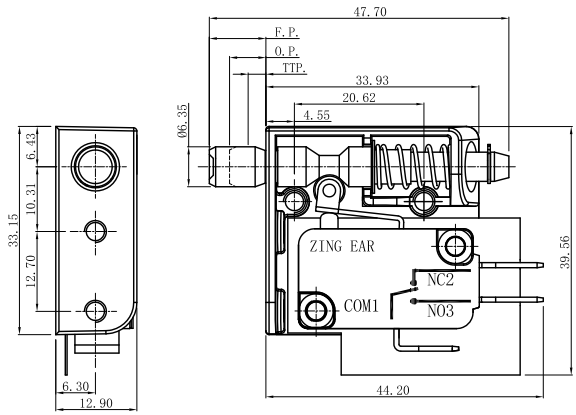
Series-G5D Zinc Alloy Door Switch

◆ Dimensions and Operating Characteristics

(Unit:mm)

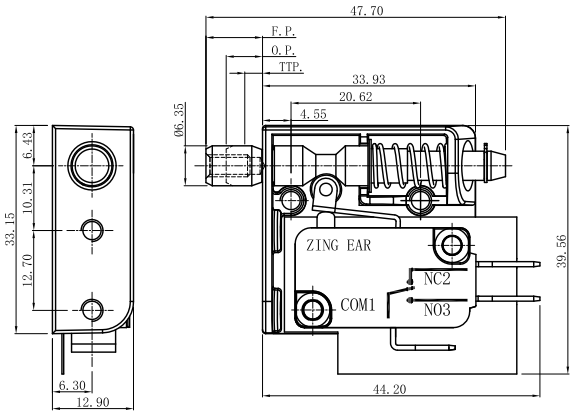
◆G5D□□-□□1800F05-U

Parameters				
OF Max		FP Max (mm)	TTP Min (mm)	OP Min (mm)
(N)	(gf)			
17.60	1800	9.5	3.18	5.16



◆G5D□□-□□1800J05-U

Parameters				
OF Max		FP Max (mm)	TTP Min (mm)	OP Min (mm)
(N)	(gf)			
17.60	1800	9.5	3.18	5.16

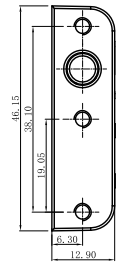


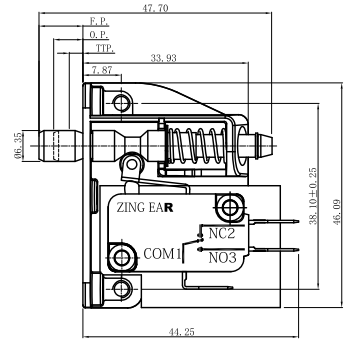
◆Dimensions and Operating Characteristics

□Unit:mm)

◆G5D□ □-□ □1800F05-V

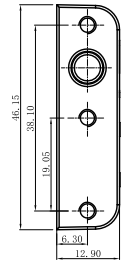
Parameters				
OF Max		FP Max (mm)	TTP Min (mm)	OP Min (mm)
(N)	(gf)			
17.60	1800	9.5	3.18	5.16

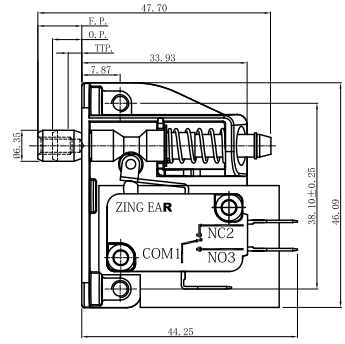


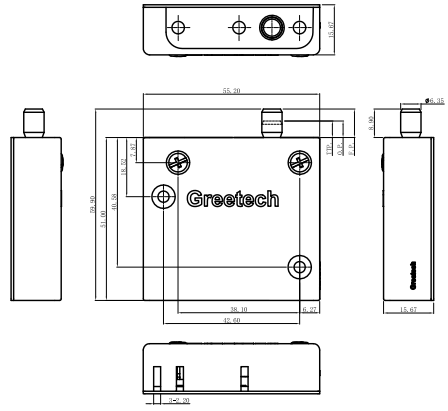


◆G5D□ □-□ □1800J05-V

Parameters				
OF Max		FP Max (mm)	TTP Min (mm)	OP Min (mm)
(N)	(gf)			
17.60	1800	9.5	3.18	5.16





◆G5D□ □-□ □900J05-V

Parameters				
OF Max		FP Max (mm)	TTP Min (mm)	OP Min (mm)
(N)	(gf)			
17.60	900	9.5	3.18	5.16