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 of temperature grades −25°C~+150°C, 200°C optional
- With optional PTI grade(175V, 250V,600V)
- Variety of levers
- Widely used in appliance, electronic equipments, automatic machines, communicating 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 Linear Speed		0.1~1m/s (up to the actuating method)
Operating Frequency		Mechanical 60 cycles/min; Electrical 15 cycles/min
Insulation Resistance		⩾100mΩ（500 VDC）
Contact Resistance (Initial Value)		⩽100mΩ
Voltage Resistance	between terminals	AC1000V,50/60Hz,1min.
	Between electrified metal parts and housing, and between terminals and unelectrified metal parts	AC1500V,50/60Hz,1min.
Vibration Durability		10-55Hz Double amplitude 1.5mm
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)

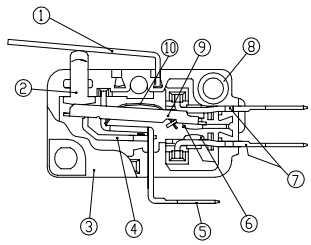
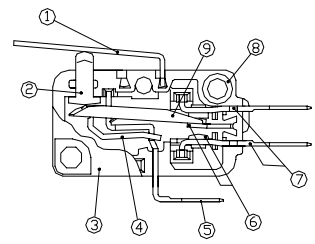
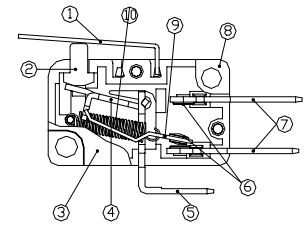
G5 Series Micro Switch Ordering Instruction

G5	T	16	C1	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	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 C1,C2,E,E1,E2,D1, D2, S1, S2	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 specifiction for detailed differences.
G5 Door – Switch	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	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 ENEC/CQC: 10(3)A125/250VAC 25T125 μ 5E4 (Above only for"T"temperature grade C1,C2,E,E1,E2,D1, D2, F1 Terminal only) 10(4)A 250V AC 25T85 μ 5E4 IP64 Only for G5F "IP64" waterproof grade	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 μ 5E4 UL/CUL: 16A 1/2HP 125/250VAC	L1 L2 Left side PCB connect Terminals		100 100gf 0.98 N 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 μ 5E4 UL/CUL: 22A 1HP 125/250VAC	R1 R2 Right side PCBconnect Terminals		200 200gf 1.96N Note: G5S05, G5T10, G5W11 Series with maximum OF 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, μ 5E4 0.02A 250VAC, 25E3	S1 S2 Solder Connect Terminals		300 300gf 2.94N Note: Not apply to G5S05, G5T10 Series		05 Roller Lever		
			T1 T2 Screw Connect Terminals		400 400gf 3.92N Note: Not apply to G5S05,G5T10 Series		06 Long Roller Lever		
			P1 P2 Straight PCB Terminals		500 500gf 4.90N "B" Termerature grade only.		... .		
			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 connect						

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.(not recommended)

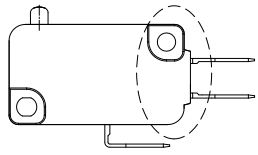
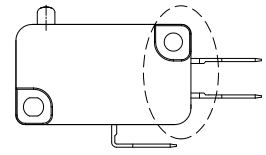
G5 Series Mounting Hole,Lever Type,Circuit,Shape,Terminal Type

■Inner Construction

		
General Type	G5S05/G5T10	Contact Gap>3mm

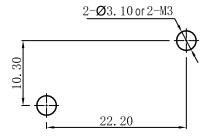
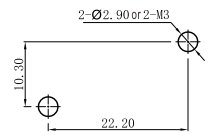
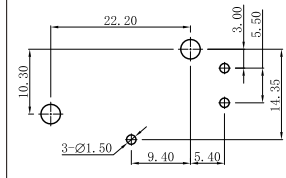
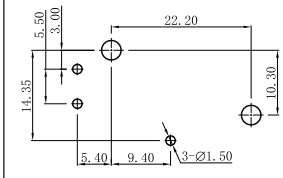
1. Lever
2.Plunger
3.Cover
4.Internal Lever
5.Common Terminal
6. Contacts
7. NO/NC Terminals
8.Case
9.Movable Plate
10.Spring

■Housing Outline Characteristics

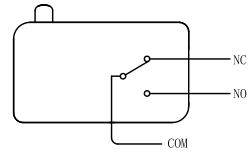
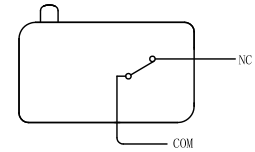
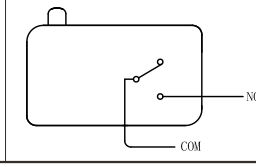
	
Flat Type Optional Terminal:C1,D1,E1,L1,R1...	Fully Flat Type Optional Terminal:C2,D2,E2,L2,R2...

■Mounting Hole Dimensions

(Unit:mm)

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

■Circuit Configuration

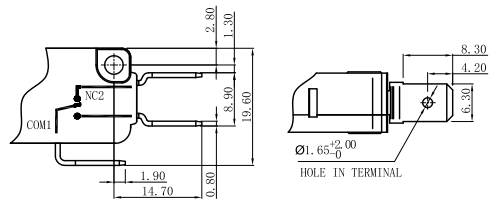
Common Terminal Type	"Z":SPDT	"C":SPST-NC	"P" : SPST-NO
Common Terminal at bottom			

■Connect Terminal Dimensions

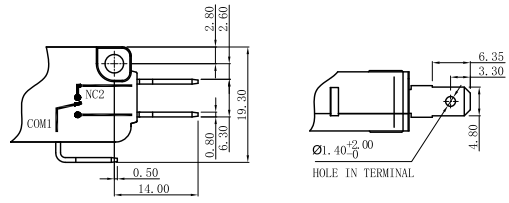
◆Terminals for Flat Type Housing

(Unit:mm)

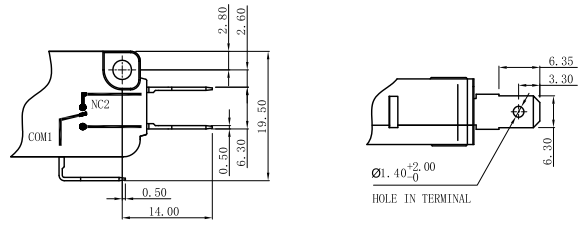
C1:
Flat Type Housing with
250#Quick Connect Terminals,T=0.8(C1)



D1:
Flat Type Housing with
187#Quick Connect Terminals,T=0.8(D1)



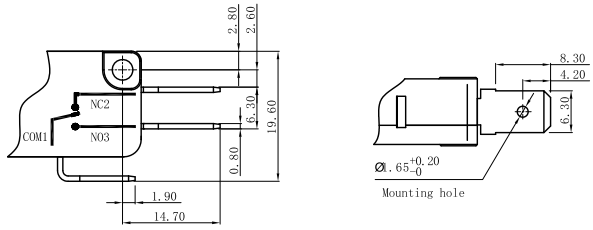
E1:
Flat Type Housing with
187#Quick Connect Terminals,T=0.5(E1)



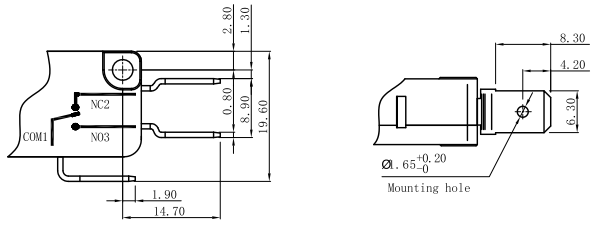
◆Terminals for Fully Flat Type Housing

(Unit:mm)

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



C2
Fully Flat Housing with
250#Quick Connect Terminals,T=0.8(C2)



D2
Fully Flat Housing with
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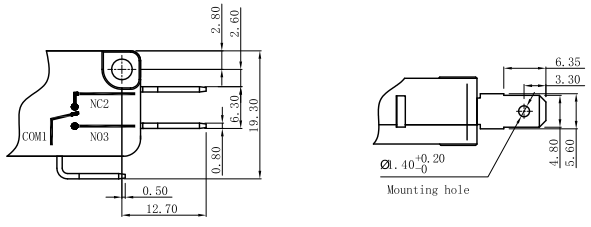
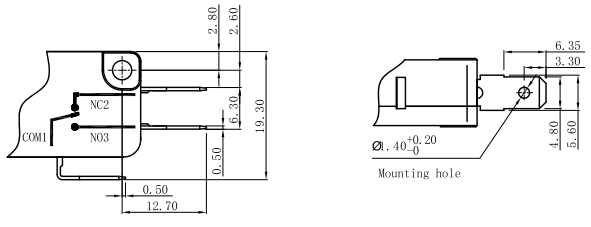
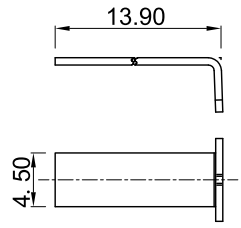


E2
Fully Flat Housing with
187#Quick Connect Terminals,T=0.5(E2)

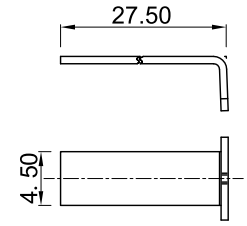


◆Other Levers

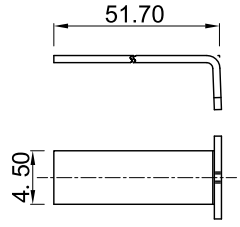
01#:
Lever01#



02#:
Lever02#



03#:
Lever03#



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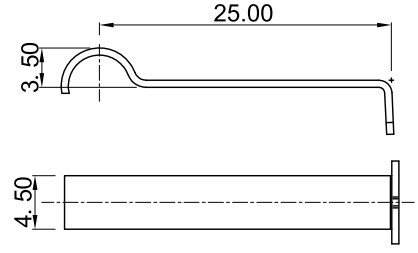
Lever04#



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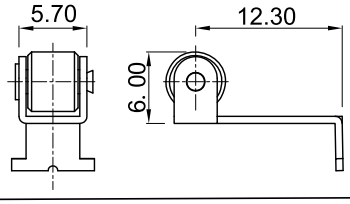
Lever05#



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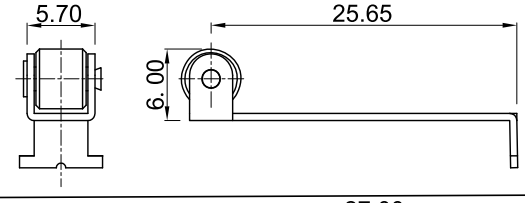
Lever06#



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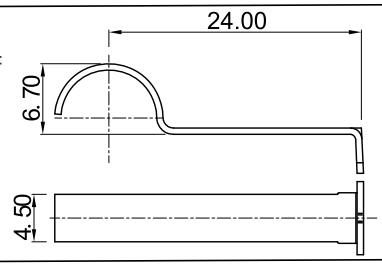
Lever110#



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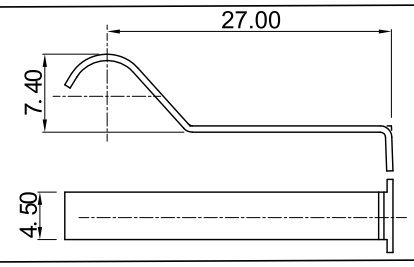
Lever137#



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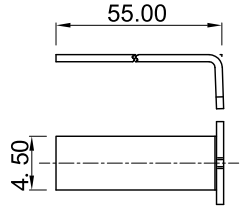
Lever164#



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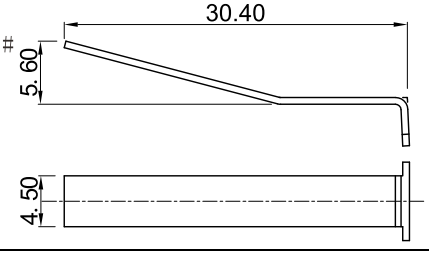
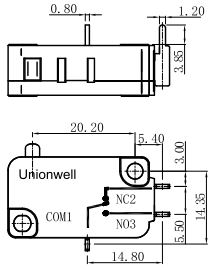
Lever165#

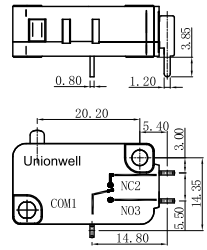


◆Other Terminal Type

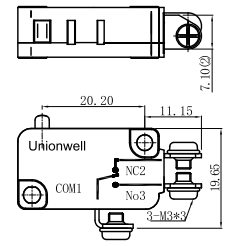
L Left Angled PCB Terminal



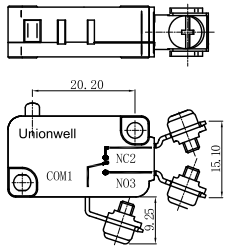
R Right Angled PCB Terminal



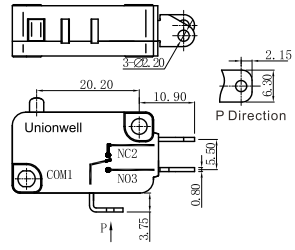
T Screw Terminal



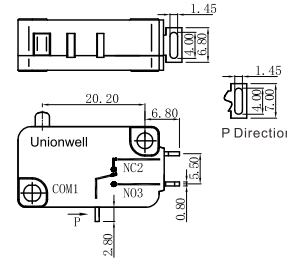
F Slant Screw Terminal



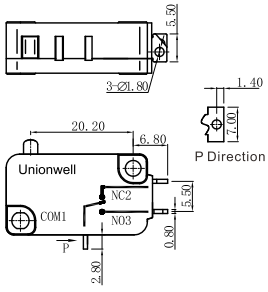
S Standard Solder Terminal



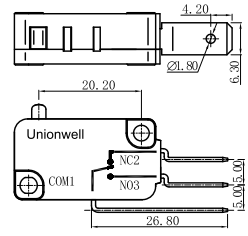
K Rectangle Hole Solder Terminal



M Short Solder Terminal



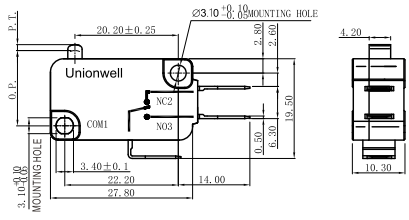
H1 RAST-5



◆Dimensions and Operating Characteristics

(Unit:mm)

◆ Pin Plunger

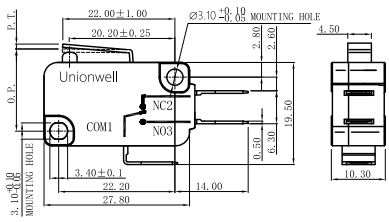


Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015	0.15	15	0.03	3	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z025	0.25	25	0.05	5	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z050	0.49	50	0.10	10	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z100	0.98	100	0.25	25	1.6	0.8	0.4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

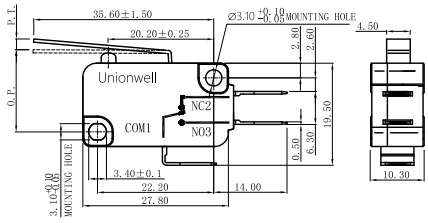
(Unit: mm)

◆ Short Straight Lever



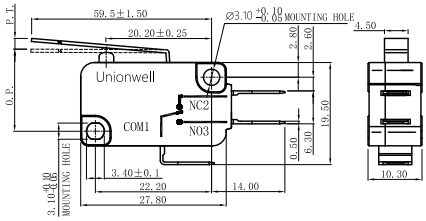
Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A01	0.15	15	0.03	3	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z025A01	0.25	25	0.05	5	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z050A01	0.49	50	0.10	10	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z100A01	0.98	100	0.25	25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



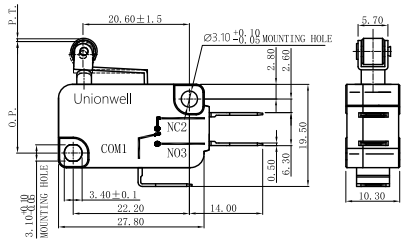
Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A02	0.10	10	0.02	2	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z025A02	0.15	15	0.02	2	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z050A02	0.29	30	0.05	5	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z100A02	0.59	60	0.10	10	3.2	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



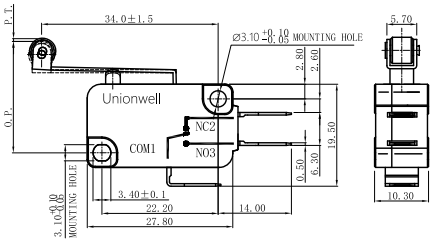
Part No.	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A03	0.07	7	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z025A03	0.10	10	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z050A03	0.15	15	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z100A03	0.29	30	0.05	5	6.4	2.6	2.4	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

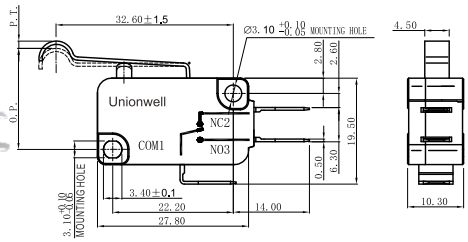


Part NO	Parameters							
	OF Max		RF Min		PT Max (mm)	OT Min (mm)	MD Max (mm)	OP (mm)
	(N)	(gf)	(N)	(gf)				
G5□□□-E1Z015A06	0.10	10	0.02	2	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z025A06	0.15	15	0.02	2	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z050A06	0.29	30	0.05	5	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z100A06	0.59	60	0.10	10	3.2	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

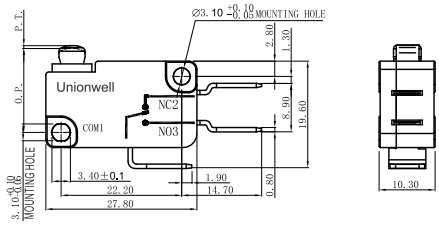
(Unit: mm)

◆ 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