

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/s ² (approx. 100G) max. OF ≤ 1.0N: 400m/s ² (approx. 40G) max. Destruction: OF > 1.0N: 200m/s ² (approx. 20G) max. OF ≤ 1.0N: 100m/s ² (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 Plunger	Lever Position	Lever Type	Mounting Holes	Special Designator
G5 Series - Micro Switch	S 25T85 Only for "05" rating (Only)	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 specification for detailed differences.
	T 25T125	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.
G5 Door - Switch	H 25T150	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 1A 125VAC ENEC/CQC: 10(3)A 125/250VAC 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	055 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 GSD Door Switch	
	B 25T125 Only for "08" rating and contact gap>3mm	ENEC/CQC: 16(4)A 250VAC μ 5E4 UL/CUL: 16A 1/2HP 125/250VAC	L1 L2 Left side PCB connect Terminals		105 100gf 0.98N Note: 16A and 22A Minimum OF is 100gf.	F Push Rod "GSD Door switch" only.	03 Long Straight Lever	V Alloy base with outer mounting hole Only for GSD Door Switch	
	F 25T85 IEC Only for rating "10"	ENEC/CQC: 22(B)A 250VAC μ 5E4 UL/CUL: 22A 1HP 125/250VAC	R1 R2 Right side PCB connect terminals		205 200gf 1.96N Note: G5S05, G5T10, G5W11 Series with maximum OF 200gf; 26A, Min OF is 200gf	J Screw Push Rod GSD Door switch only.	04 Simulated Roller Lever	W Alloy base with two switches Only for GSD Door Switch	
		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		405 400gf 3.92N Note: Not apply to G5S05, G5T10 Series		06 Long Roller Lever		
		P1 P2 Straight PCB Terminals		500 500gf 4.90N "B" Temperature grade only.				
		H1 H2 Rast -5 Terminals		805 1800gf 17.64N "GSD Door switch" only.		99 Special Lever			
		B3 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)

<p>C1: Flat Type Housing with 250#Quick Connect Terminals,T=0.8(C1)</p>		
<p>D1: Flat Type Housing with 187#Quick Connect Terminals,T=0.8(D1)</p>		
<p>E1: Flat Type Housing with 187#Quick Connect Terminals,T=0.5(E1)</p>		

◆ **Terminals for Fully Flat Type Housing**

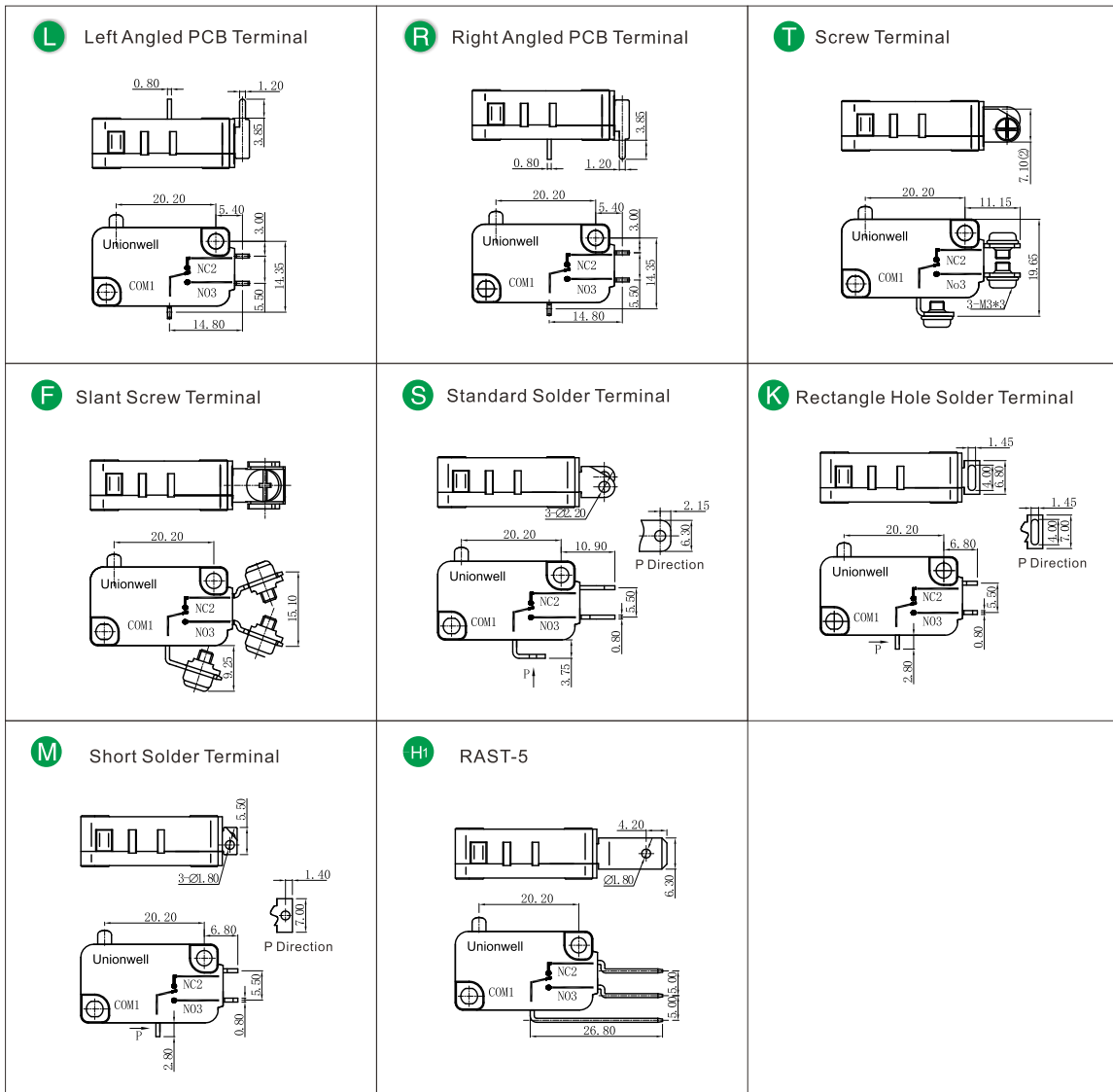
(Unit:mm)

<p>B2 Fully Flat Type 250#Quick Connect Terminals,T=0.8</p>		<p>Mounting hole</p>
<p>C2 Fully Flat Housing with 250#Quick Connect Terminals,T=0.8(C2)</p>		<p>Mounting hole</p>
<p>D2 Fully Flat Housing with 187#Quick Connect Terminals,T=0.8(D2)</p>		<p>Mounting hole</p>
<p>E2 Fully Flat Housing with 187#Quick Connect Terminals,T=0.5(E2)</p>		<p>Mounting hole</p>

◆Other Levers

<p>01#: Lever01#</p>	<p>02#: Lever02#</p>
<p>03#: Lever03#</p>	<p>04#: Lever04#</p>
<p>05#: Lever05#</p>	<p>06#: Lever06#</p>
<p>110#: Lever110#</p>	<p>137#: Lever137#</p>
<p>164#: Lever164#</p>	<p>165#: Lever165#</p>

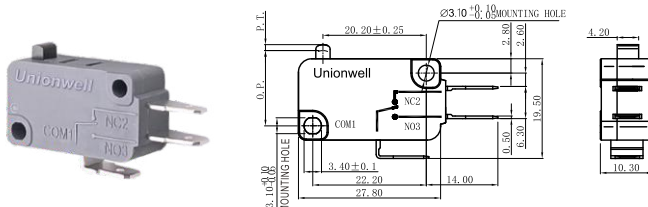
◆ Other Terminal Type



◆ Dimensions and Operating Characteristics

(Unit:mm)

◆ Pin Plunger

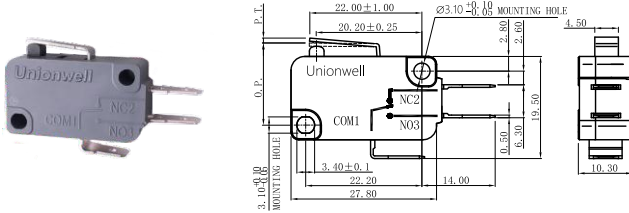


Part No.	Parameters							
	OF Max	RF Min	PT Max	OT Min	MD Max	OP		
	(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	
G5□□□-E1Z015	0.15	15	0.03	3	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z025	0.25	25	0.05	5	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z050	0.49	50	0.10	10	1.6	0.8	0.4	14.7±0.5
G5□□□-E1Z100	0.98	100	0.25	25	1.6	0.8	0.4	14.7±0.5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

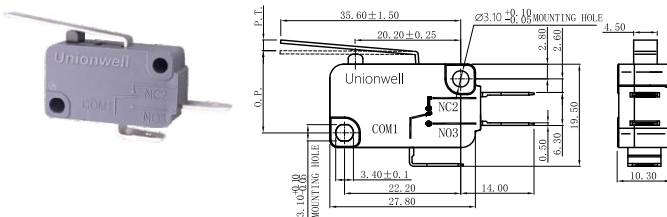
(Unit: mm)

◆ **Short Straight Lever**



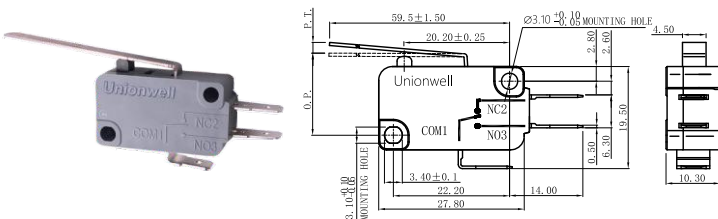
Part No.	Parameters							
	OF Max	RF Min	PT Max	OT Min	MD Max	OP		
	(N)	(gf)	(N)	(gf)	(mm)	(mm)		
G5□□□-E1Z015A01	0.15	15	0.03	3	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z025A01	0.25	25	0.05	5	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z050A01	0.49	50	0.10	10	1.6	0.8	0.4	15.3±0.5
G5□□□-E1Z100A01	0.98	100	0.25	25	1.6	0.8	0.4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



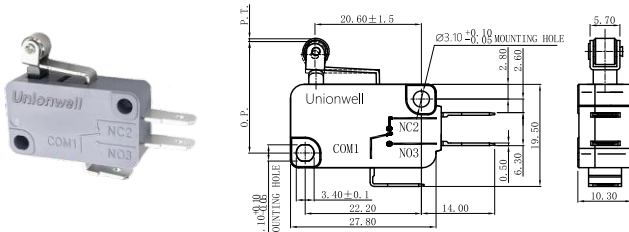
Part No.	Parameters							
	OF Max	RF Min	PT Max	OT Min	MD Max	OP		
	(N)	(gf)	(N)	(gf)	(mm)	(mm)		
G5□□□-E1Z015A02	0.10	10	0.02	2	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z025A02	0.15	15	0.02	2	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z050A02	0.29	30	0.05	5	3.2	1.3	1.2	15.3±0.5
G5□□□-E1Z100A02	0.59	60	0.10	10	3.2	1.3	1.2	15.3±0.5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



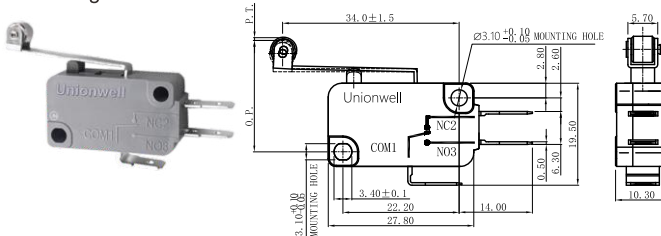
Part No.	Parameters							
	OF Max	RF Min	PT Max	OT Min	MD Max	OP		
	(N)	(gf)	(N)	(gf)	(mm)	(mm)		
G5□□□-E1Z015A03	0.07	7	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z025A03	0.10	10	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z050A03	0.15	15	0.02	2	6.4	2.6	2.4	15.3±3
G5□□□-E1Z100A03	0.29	30	0.05	5	6.4	2.6	2.4	15.3±3
G5□□□-E1Z200A03	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	OT Min	MD Max	OP		
	(N)	(gf)	(N)	(gf)	(mm)	(mm)		
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**

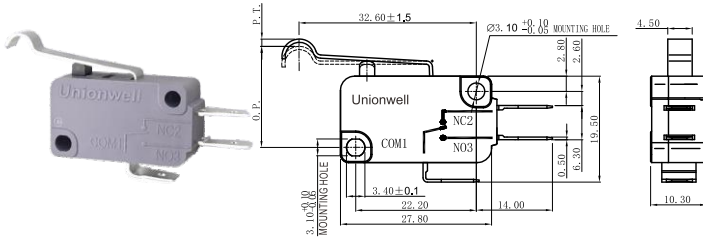


Part NO	Parameters							
	OF Max	RF Min	PT Max	OT Min	MD Max	OP		
	(N)	(gf)	(N)	(gf)	(mm)	(mm)		
G5□□□-E1Z015A06	0.10	10	0.02	2	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z025A06	0.15	15	0.02	2	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z050A06	0.29	30	0.05	5	3.2	1.3	1.2	20.6±1.6
G5□□□-E1Z100A06	0.59	60	0.10	10	3.2	1.3	1.2	20.6±1.6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

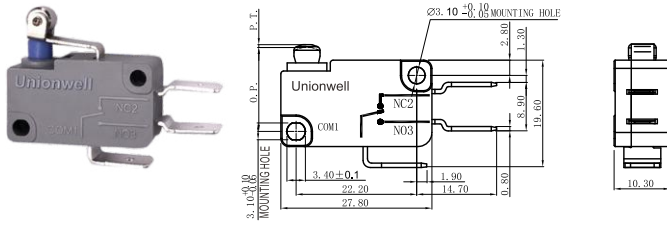
(Unit: mm)

◆ **Simulated Roller Lever**



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