

# G3

## Snap-action Microswitches

Miniature

### G3

- Characteristics
- Low operating force, high current capacity
  - < 15 cn operating force option
  - > 3 mm contact gap, change-over mechanism option
  - Unique integrated lever option - the ramp plunger
  - Faston (quick connect), junior faston and solder terminals
  - Gold-plated contact option



Rating Up to 250 VAC, 18 A

Dimensions (mm) 28 × 16 × 10

Actuator Plunger, ramp plunger

Approvals UL, CSA, ENEC

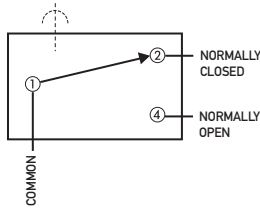
### Preferred Range

Ordering Reference	Actuating Force (N) (ozf)		Sealing	Operating pos. (mm) (in)		Terminal	Circuit	Actuator	Contacts	Electrical rating
G3M1T1RULAU	0.15	0.54	IP40	14.7	0.57	Faston 6.3 × 0.8	CO	Ramp plunger	Gold plated	Up to 250 VAC, 7 A
G3M1T1PULAU	0.15	0.54	IP40	14.7	0.57	Faston 6.3 × 0.8	CO	Plain plunger	Gold plated	Up to 250 VAC, 7 A
G3M1T1RUL	0.15	0.54	IP40	14.7	0.57	Faston 6.3 × 0.8	CO	Ramp plunger	Silver	Up to 250 VAC, 7 A
G3M1T1PUL	0.15	0.54	IP40	14.7	0.57	Faston 6.3 × 0.8	CO	Plain plunger	Silver	Up to 250 VAC, 7 A
G3M1T2RUL	0.15	0.54	IP40	14.7	0.57	Faston 4.8 × 0.8	CO	Ramp plunger	Silver	Up to 250 VAC, 7 A
G3M1T2PUL	0.15	0.54	IP40	14.7	0.57	Faston 4.8 × 0.8	CO	Plain plunger	Silver	Up to 250 VAC, 7 A
G3M1T3RUL	0.15	0.54	IP40	14.7	0.57	Faston 4.8 × 0.5	CO	Ramp plunger	Silver	Up to 250 VAC, 7 A
G3M1T3PUL	0.15	0.54	IP40	14.7	0.57	Faston 4.8 × 0.5	CO	Plain plunger	Silver	Up to 250 VAC, 7 A
G3M1T4RUL	0.15	0.54	IP40	14.7	0.57	Solder	CO	Ramp plunger	Silver	Up to 250 VAC, 7 A
G3M1T4PUL	0.15	0.54	IP40	14.7	0.57	Solder	CO	Plain plunger	Silver	Up to 250 VAC, 7 A
G3G4T1RUL	2.70	7.20	IP40	14.5	0.57	Faston 6.3 × 0.8	CO	Ramp plunger	>3mm gap	Up to 250 VAC, 10 A
G3G4T1PUL	2.70	7.20	IP40	14.5	0.57	Faston 6.3 × 0.8	CO	Plain plunger	>3mm gap	Up to 250 VAC, 10 A

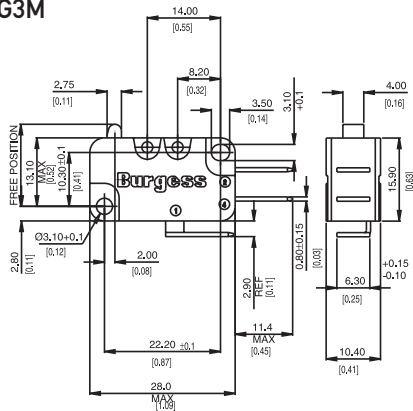
## Specifications

Housing	Flame retardant glass-filled nylon
Plunger	Flame retardant glass-filled nylon
Mechanism	Snap-action, single pole - beryllium copper trident spring
Functions	Change-over, Normally open, Normally closed
Contacts	Fixed - Silver cadmium oxide or gold plate on silver cadmium oxide, Moving - Silver or gold plate on silver
Terminals	6.3 mm (0.25 in), 4.8 mm (0.19 in) faston: NC (2), NO (4) - Brass, Common (1) - Brass, silver-plated Solder: Brass, silver-plated
Temperature range °C	-40°C to +85°C
Mechanical life	10 <sup>6</sup> to 10 <sup>7</sup> cycles minimum (impact free actuation) - dependent on operating force
Protection	IP 40 (enclosure)
Mounting	Side mounting
Actuators	Plain plunger, Ramp plunger

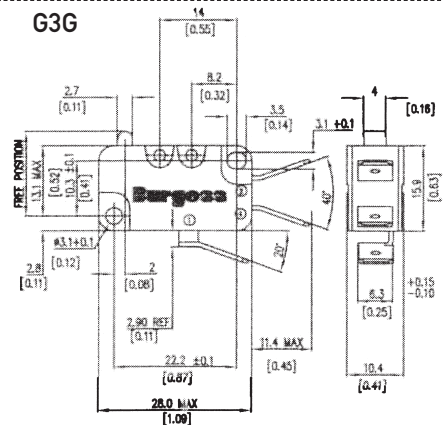
Circuit diagram



Dimensions G3M



Dimensions G3G

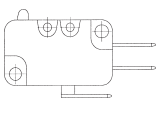
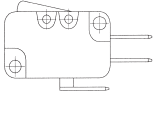
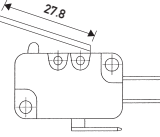


## Recommended maximum electrical ratings

	Voltage (max)	Load (A)	Inductive load (A)	Approval
G3M1	250 VAC	7 (0.75 pf)		UL 1054/CSA 22.2 No. 55 - 6,000 operations
	250 VAC	6	2	EN61058-1, T85, 50,000 operations
G3M2	250 VAC	10.1 (0.75 pf)		UL 1054/CSA 22.2 No. 55 - 6,000 operations
	250 VAC	10	3	EN61058-1, T85, 50,000 operations
G3M3	250 VAC	15 (0.75 pf)		UL 1054/CSA 22.2 No. 55 - 6,000 operations
	250 VAC	16	4	EN61058-1, T85, 10,000 operations
G3M4	250 VAC	18 (0.75 pf)		UL 1054/CSA 22.2 No. 55 - 6,000 operations
	250 VAC	18	4	EN61058-1, T85, 10,000 operations
G3G4	250 VAC	10.1 (0.75 pf)		UL 1054/CSA 22.2 No. 55 - 6,000 operations
	250 VAC	10	3	EN61058-1, T85, 10,000 operations

G3 switches are available with either silver or gold-plated silver contacts. Switches with gold-plated contacts are intended for use in circuits where switching is at milliwatt levels. In this case, the power being switched must be limited to avoid the erosion of gold plate from the contact area. However, as the underlying contacts are silver, the same power ratings apply.

### Operating Characteristics

Actuator	Reference	Actuating Force Maximum		Release Force Minimum		Free Position Maximum		Operating Position		Movement Differential		Over travel Maximum	
		(N)	(ozf)	(N)	(ozf)	(mm)	(in)	(mm)	(in)	(mm)	(in)		
Plain plunger 	G3M1..P	0.15	0.54	0.005	0.02	15.9	0.625	14,7 ± 0.3	0.57	} +0,01 } -0,001	0.2	0.008	*
	G3M2..P	0.70	2.52	0.200	0.72	15.9	0.625	14,7 ± 0.3	0.57		0.2	0.008	
	G3M3..P	1.10	3.96	0.300	1.08	15.9	0.625	14,7 ± 0.3	0.57		0.2	0.008	
	G3M4..P	1.70	6.11	0.500	1.80	15.9	0.625	14,7 ± 0.3	0.57		0.2	0.008	
	G3G4..P	2.70	7.20	0.200	0.72	15.9	0.625	14,5 ± 0.3	0.57		0.5	0.020	
Ramp plunger 	G3M1..R	0.15	0.54	0.005	0.02	15.9	0.625	14,7 ± 0.3	0.57	} +0,01 } -0,001	0.2	0.008	*
	G3M2..R	0.70	2.52	0.200	0.72	15.9	0.625	14,7 ± 0.3	0.57		0.2	0.008	
	G3M3..R	1.10	3.96	0.300	1.08	15.9	0.625	14,7 ± 0.3	0.57		0.2	0.008	
	G3M4..R	1.70	6.11	0.500	1.80	15.9	0.625	14,7 ± 0.3	0.57		0.2	0.008	
	G3G4..R	2.70	7.20	0.200	0.72	15.9	0.625	14,5 ± 0.3	0.57		0.5	0.020	
Plain lever 	G3M1..	0.12		0.03		22.0		16,5 ± 0.8			0.5		
	G3M2..	0.35		0.08		22.0		16,5 ± 0.8			0.5		
	G3M3..	0.70		0.15		22.0		16,5 ± 0.8			0.5		
	G3M4..	0.90		0.20		22.0		16,5 ± 0.8			0.5		

Lever width 7mm Please contact Saia-Burgess for referencing details on lever variants.

\* Plunger can be depressed flush with housing. The housing should not be used as an end stop.

### Ordering Reference

Type	G3		
Contact gap	M	Microgap	
	G	>3 mm gap	
Actuating Characteristic	1	0.15	
	2	0.70	
	3	1.10	
	4	1.70	Microgap
Terminals	T1	Faston 6.3 × 0.8	
	T2	Faston 4.8 × 0.8	
	T3	Faston 4.8 × 0.5 (microgap only)	
	T4	Solder	
Note: Microgap - parallel terminals; >3 mm gap - flared terminals			
Actuators	P	Plain plunger	
	R	Ramp plunger	
Circuit	No digit	Change-over	
	C2	Normally closed	
	C4	Normally open	
Approvals	No digit	ENEC	
	UL	UL and CSA	
Contacts	No digit	Silver, silver cadmium oxide	
	AU	Gold plated silver, gold plated silver cadmium oxide	