

TP312 Series Micro Switches

MICRO SWITCH TP312 SERIES



■ FEATURES

- High applicability for general industrial equipment and home appliances
- High precision mechanism design offering durable acute operation and long life
- Heavy/Light operation force specifications
- Three Kinds of terminal available #187 quick connect/solder, #187 quick connect and #250 quick connect type
- RoHS Compliant

■ APPLICATIONS

- Home appliances
- Vending machines
- Amusement and communication equipment
- Office automation appliances
- General industrial machines

■ SPECIFICATIONS

1. ELECTRICAL

DESCRIPTION		TYPE	TP312-16	TP312-21
		Contact Rating:	AC 125V	
AC 250V			16A 1/2HP	21A 1/2HP
DC 125V			0.6A	0.6A
DC 250V			0.3A	0.3A
Contact Resistance: (Initial)		50mΩ Max.		
Insulation Resistance		100 MΩ Min. at 500 VDC		



Dimensions are shown: mm
Specifications and dimensions subject to change



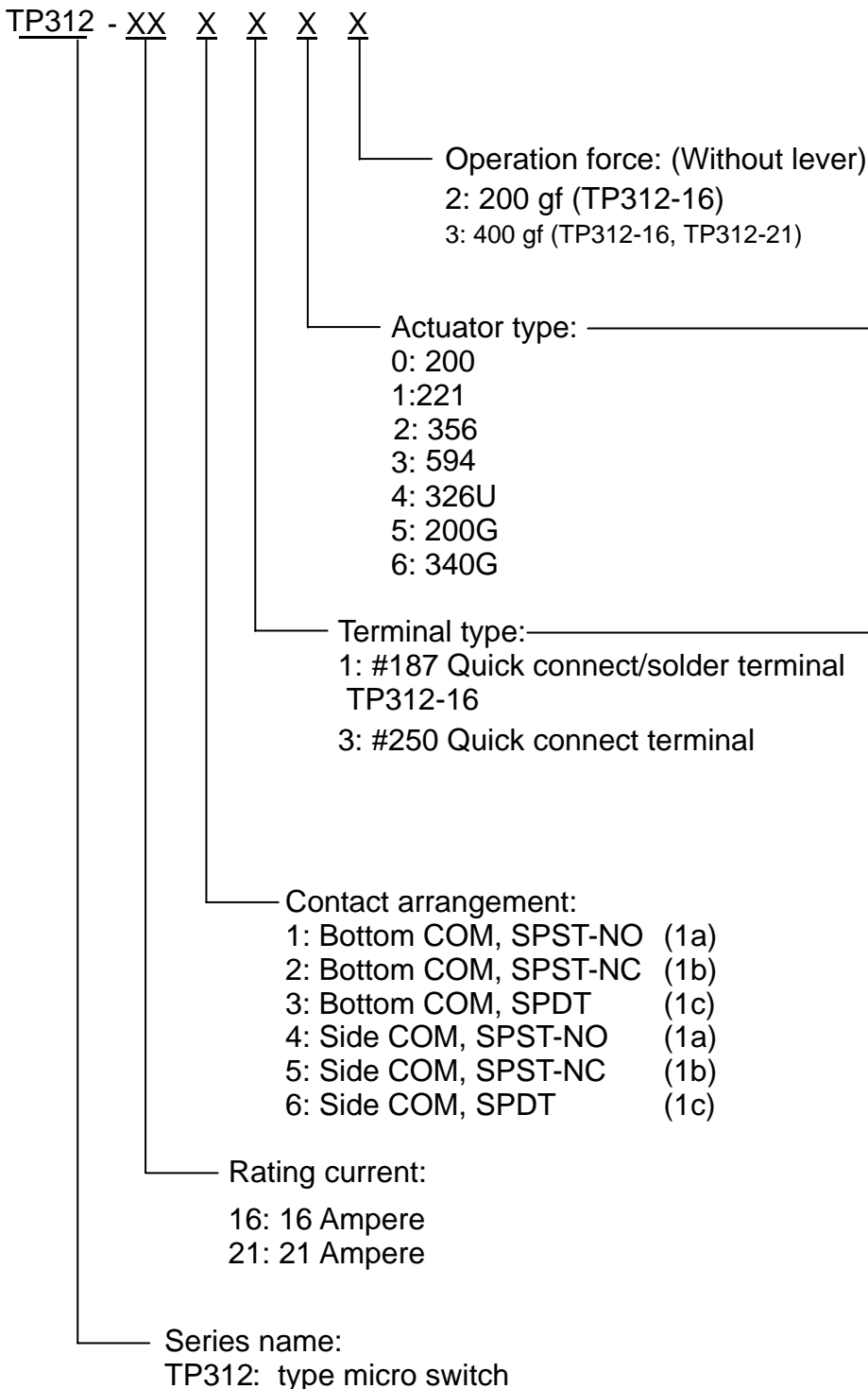
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2. CHARACTERISTICS

TYPE		TP312-16	TP312-21
DESCRIPTION			
Mechanical Life (Cycles Operations)		1,000,000	
Electrical Life (Cycles Operations)		50,000	50,000
Ambient Temperature		-25°C to +80°C (without dew condensation)	
Ambient Humidity		Max. 85% RH	
Max. operating cycle rate	Mechanical	600 cycle/min.	
	Electrical	60 cycle/min.	
Allowable Operation speed		0.1 to 1,000 mm/sec (without lever)	
Dielectric Strength	Between non-continuous terminal	AC 1000Vrms	
	Between each terminal and other exposed metal parts	AC 2000Vrms	
	Between each terminal and ground	AC 2000Vrms	
Vibration Resistance (Without lever)		10 to 55 Hz amplitude of 1.5mm	
Shock Resistance (Without lever)		200m/s ² {20G}Min.	300m/s ² {30G}Min.
Unit weight		Approx 6.5g	

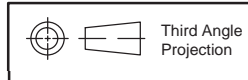
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■ PART NUMBERING SYSTEM



Actuators		
0	200	
1	221	
2	356	
3	594	
4	326U	
5	200G	
6	340G	

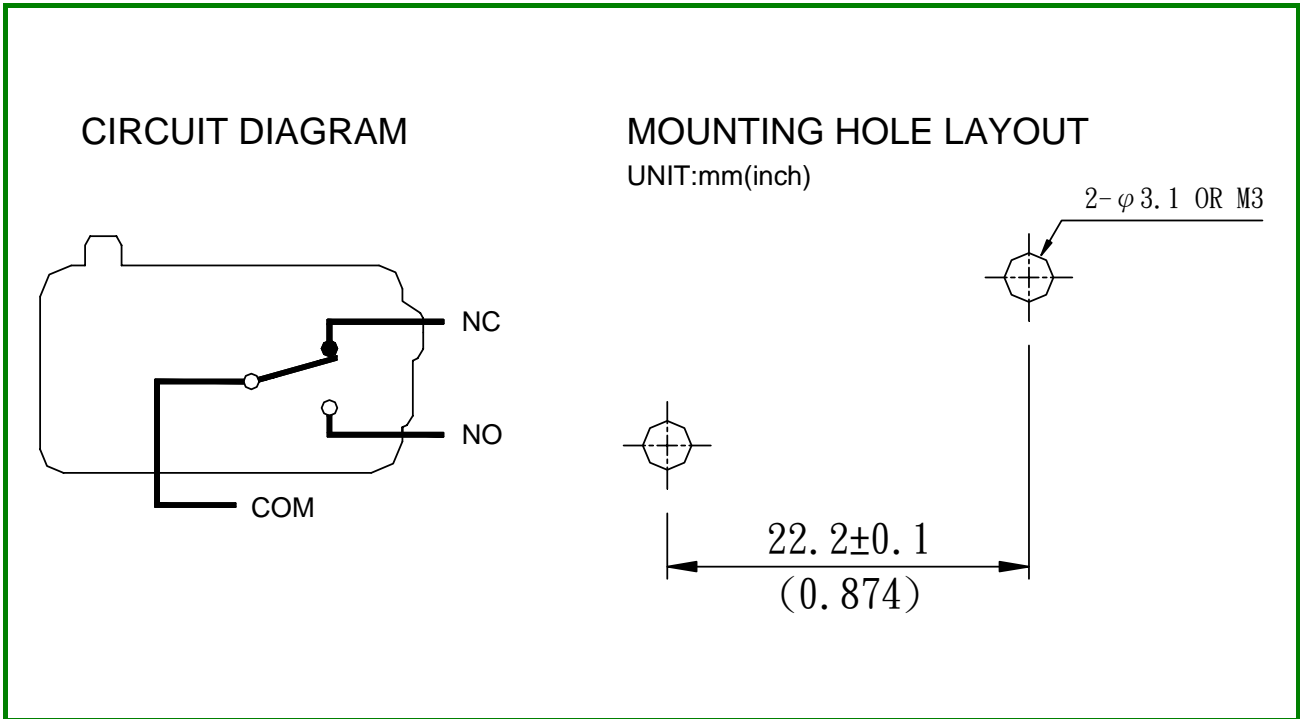
Terminal type		
1	#187 Quick connect/solder terminal	
3	#250 Quick connect terminal	



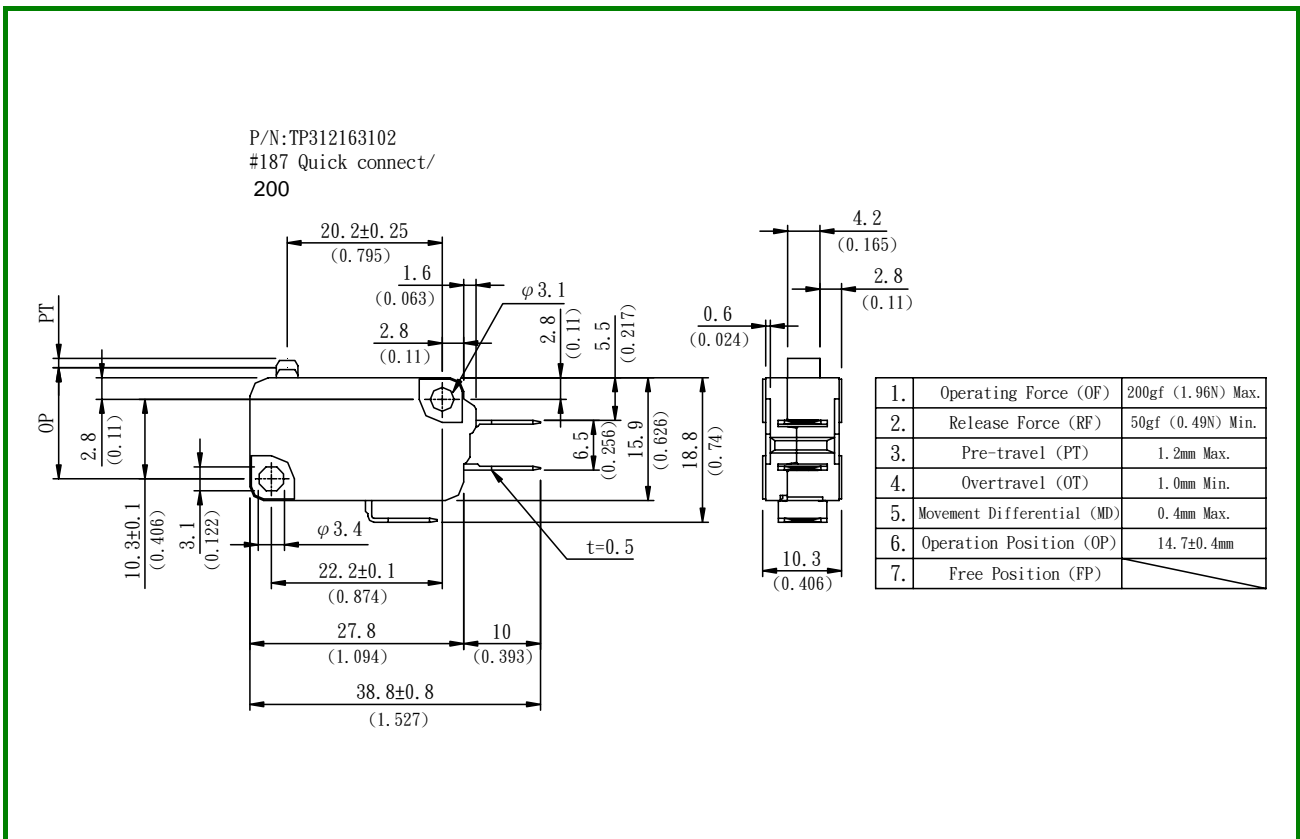
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CIRCUIT DIMENSIONS

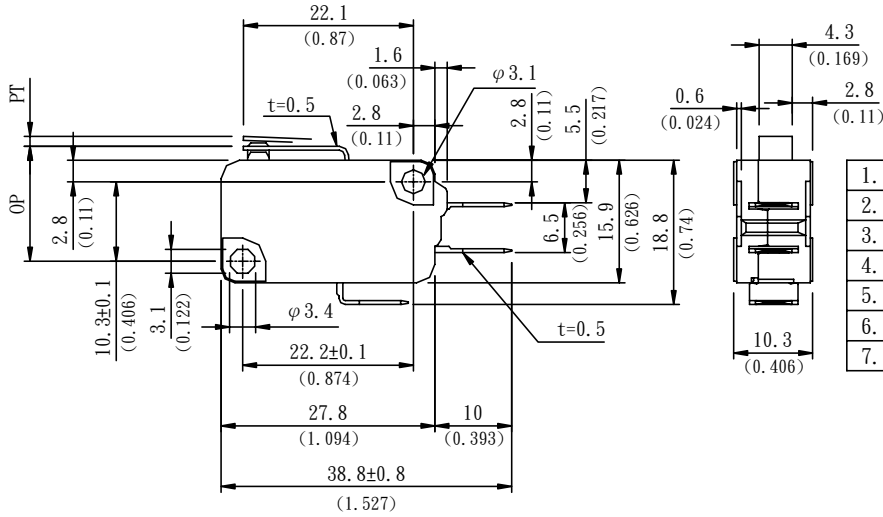


DIMENSIONS UNIT:mm(inch)



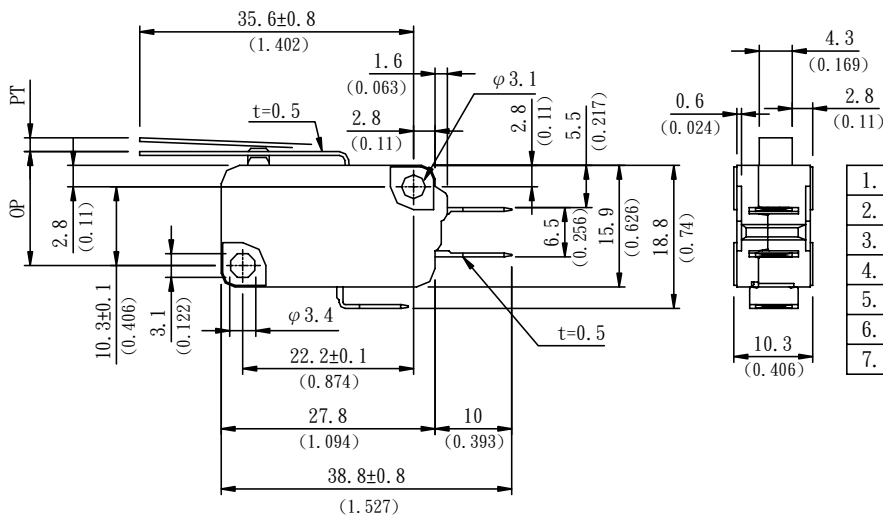
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P/N:TP312163112
#187 Quick connect/solder terminal
221

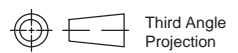


1.	Operating Force (OF)	200gf (1.96N) Max.
2.	Release Force (RF)	50gf (0.49N) Min.
3.	Pre-travel (PT)	1.6mm Max.
4.	Overtravel (OT)	0.8mm Min.
5.	Movement Differential (MD)	0.6mm Max.
6.	Operation Position (OP)	15.2±0.5mm
7.	Free Position (FP)	

P/N:TP312163122
#187 Quick connect/solder terminal
356



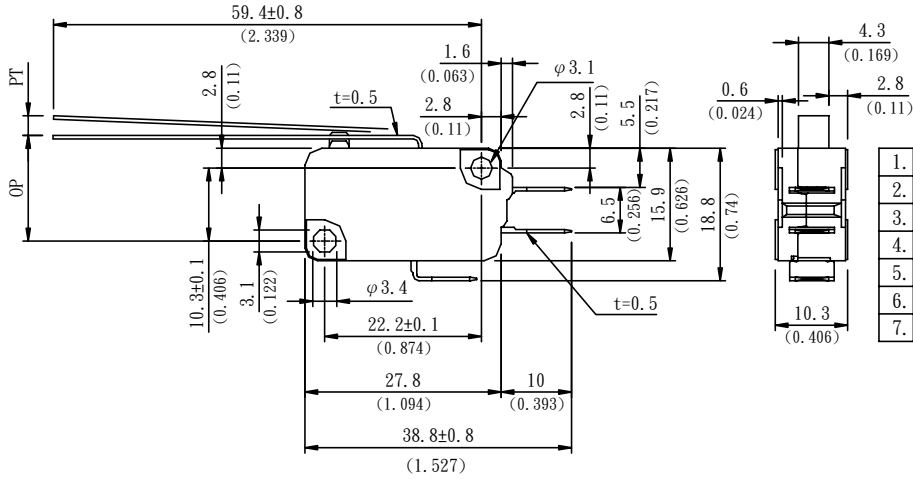
1.	Operating Force (OF)	125gf (1.23N) Max.
2.	Release Force (RF)	14gf (0.14N) Min.
3.	Pre-travel (PT)	4.0mm Max.
4.	Overtravel (OT)	1.6mm Min.
5.	Movement Differential (MD)	1.5mm Max.
6.	Operation Position (OP)	15.2±1.2mm
7.	Free Position (FP)	



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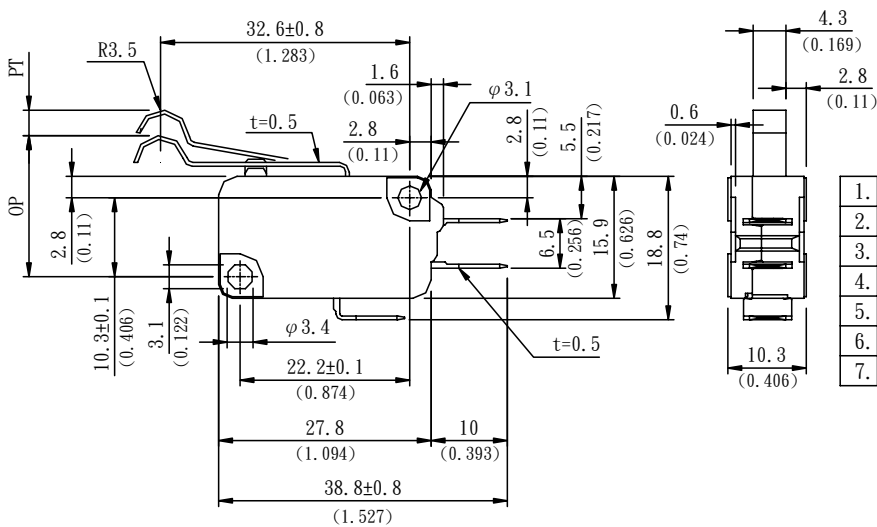
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P/N: TP312163132
#187 Quick connect/solder terminal
594



1.	Operating Force (OF)	70gf (0.69N) Max.
2.	Release Force (RF)	6gf (0.06N) Min.
3.	Pre-travel (PT)	9.0mm Max.
4.	Overtravel (OT)	2.0mm Min.
5.	Movement Differential (MD)	2.8mm Max.
6.	Operation Position (OP)	15.2 ^{+3.6} _{-3.2} mm
7.	Free Position (FP)	

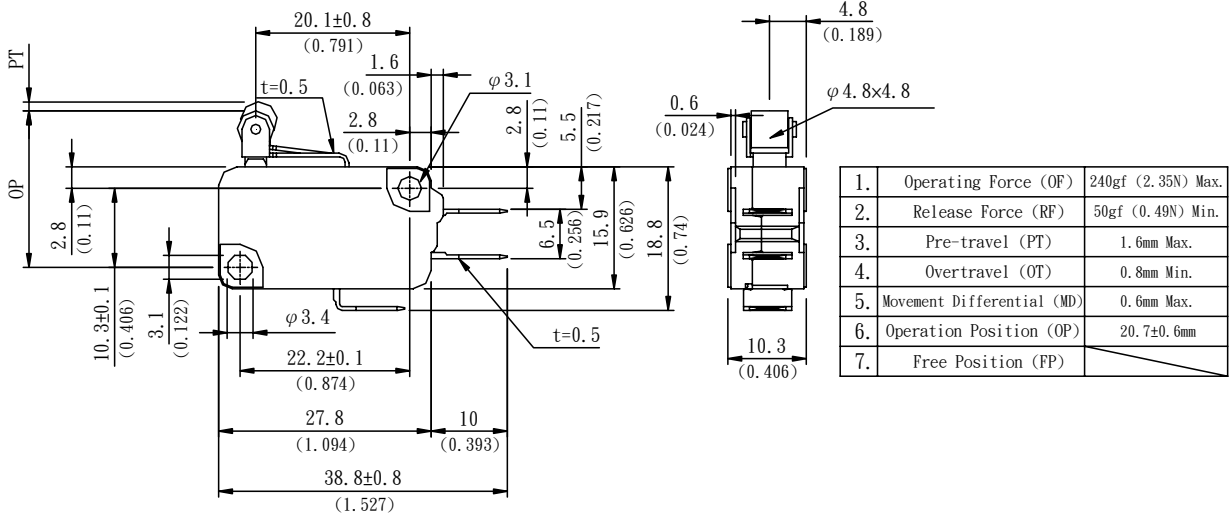
P/N: TP312163142
#187 Quick connect/solder terminal
326U



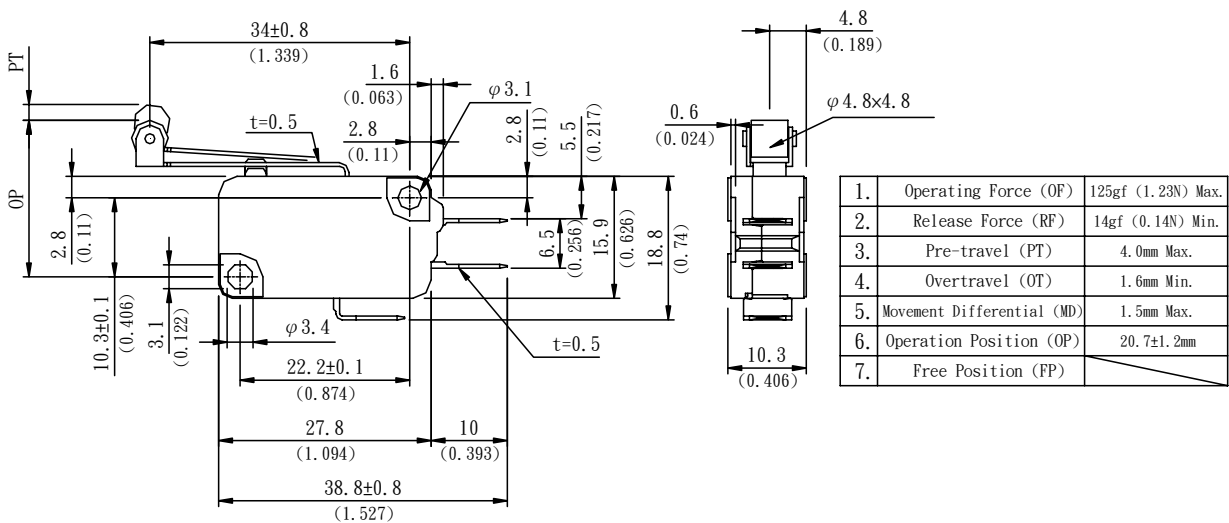
1.	Operating Force (OF)	125gf (1.23N) Max.
2.	Release Force (RF)	14gf (0.14N) Min.
3.	Pre-travel (PT)	4.0mm Max.
4.	Overtravel (OT)	1.6mm Min.
5.	Movement Differential (MD)	1.5mm Max.
6.	Operation Position (OP)	18.7±1.2mm
7.	Free Position (FP)	

TP312 Series Micro Switches

P/N: TP312163152
#187 Quick connect/solder terminal
200G



P/N: TP312163162
#187 Quick connect/solder terminal
340G



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