

# MICRO SWITCHES (Super Miniature)

## DM SERIES

■ DESIGNATION: DM-000P

■ COLOR PICTURE



■ SPECIFICATIONS

- Operating frequency (mechanical) — 100 operations/min  
(electrical) — 10~30 operations/min
- Service life (mechanical) — 3,000,000 operations min  
(electrical) — 100,000 operations min
- Contact resistance (initial) — 100mΩMax.
- Insulation resistance (at 250VDC) — 100mΩMin.
- Storage humidity — 85% RH Max.
- Storage temperature — -25°C to +85°C

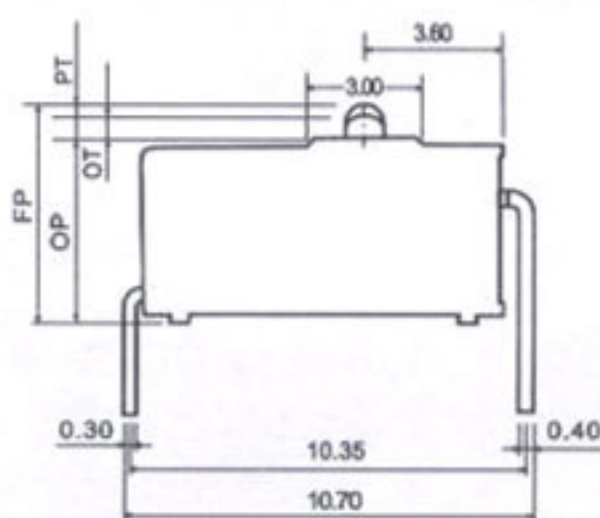
■ CONTACT CONFIGURATION



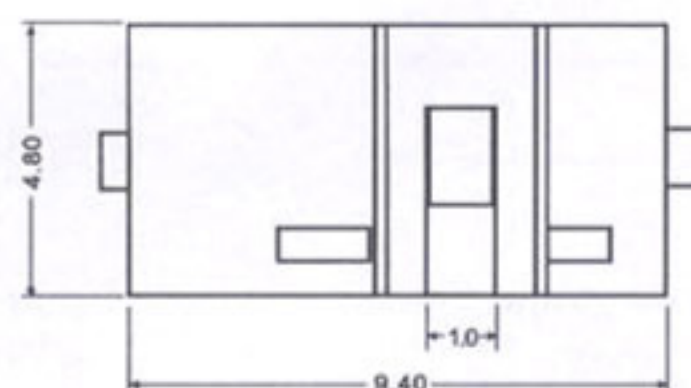
■ RATING

0.1A 48VDC - 125VAC

■ TERMINAL TYPES

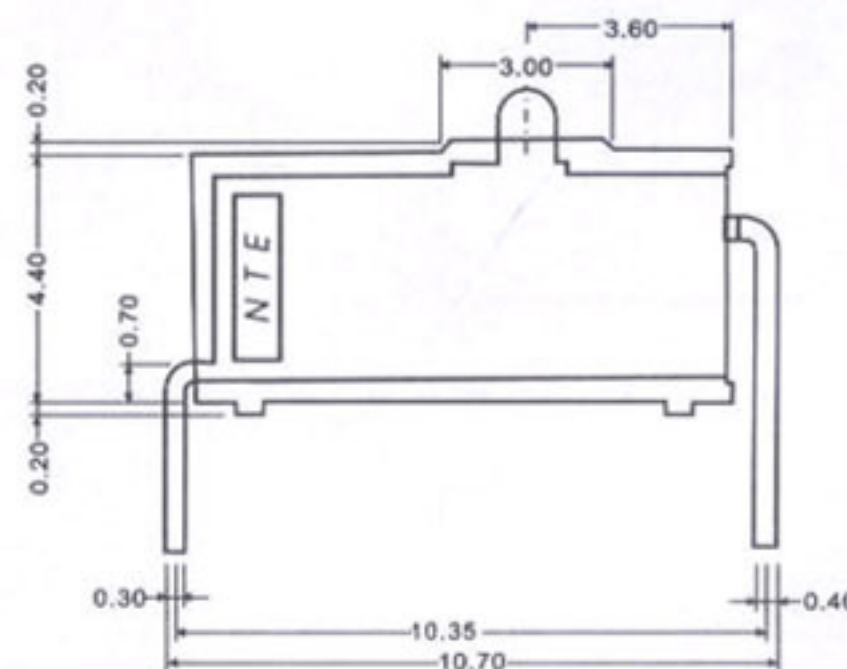


■ DIMENSION

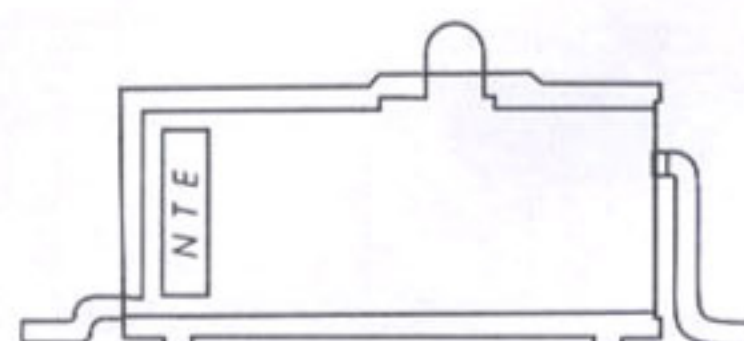


■ OPERATING CHARACTERISTICS

OPERATING CHARACTERISTICS		
OPERATING FORCE	(O.F)	80±20
RELEASE FORCE	(R.F)	22±10
PRE TRAVEL	(P.T)	0.3±0.1
OVER TRAVEL	(O.T)	0.35±0.1
MOVEMENT DIFFERENTIAL	(M.D)	0.1±0.05
OPERATING POSITION	(O.P)	5.1±0.1



"P" Terminals

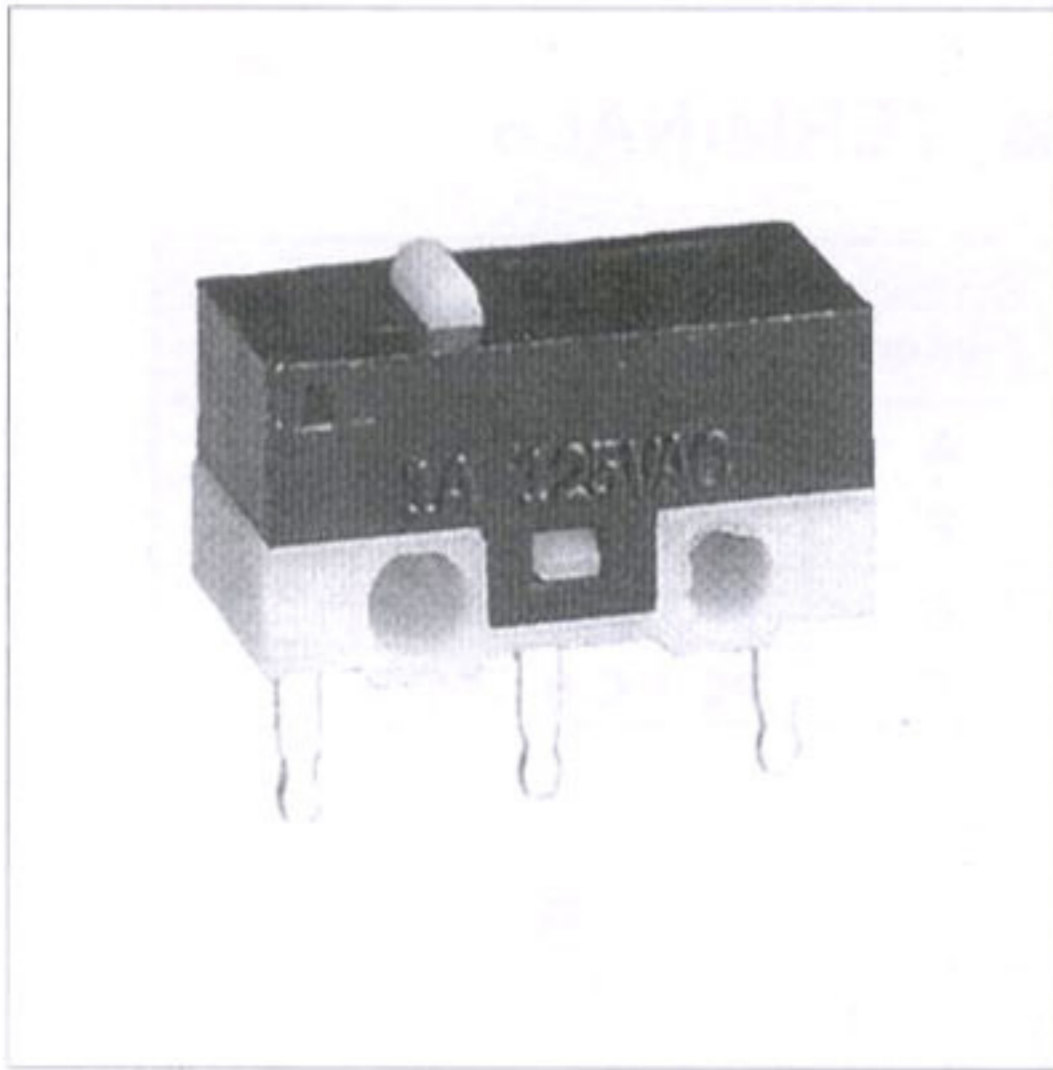


"D" Terminals

# SSM SERIES

■ DESIGNATION: SSM - 000C

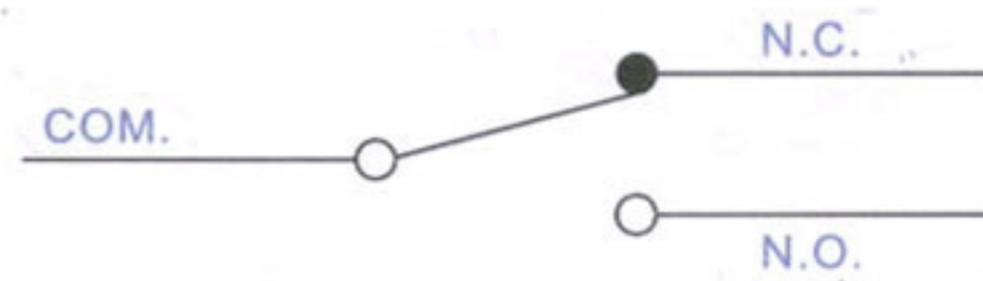
■ COLOR PICTURE



■ SPECIFICATIONS

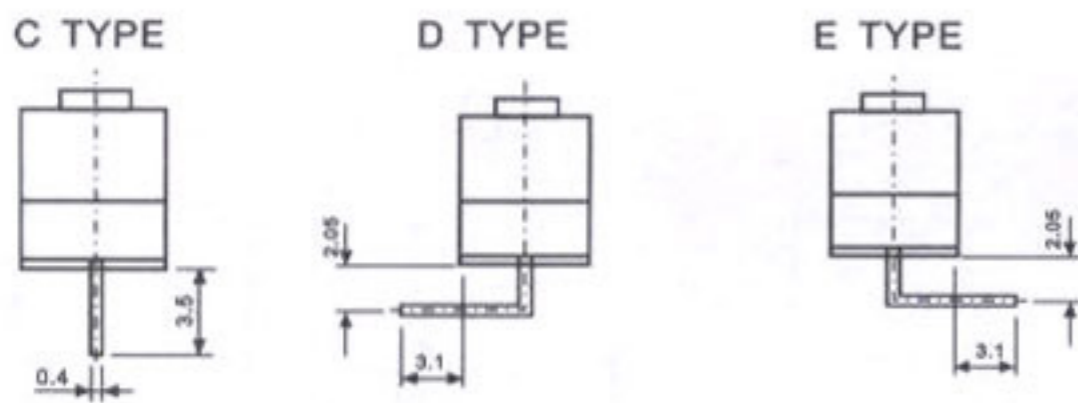
- Operating frequency (mechanical) — 120 operations  
(electrical) — 10~30 operations
- Contact resistance (initial) — 30mΩ Max.
- Insulation resistance (at 500VDC) — 100mΩ Min.
- Storage humidity — 85% RH Max.
- Storage temperature — -25°C to +85°C
- Service life  
Electrical (at rated load, depend on type) — 15,000~500,000 operations (depend on type)  
Mechanical — 1,000,000 operations Min.
- Weight — Approx. 0.5g (Pin plunger type)
- Gold plated or silver contacts

■ CONTACT CONFIGURATION



■ TERMINAL TYPES

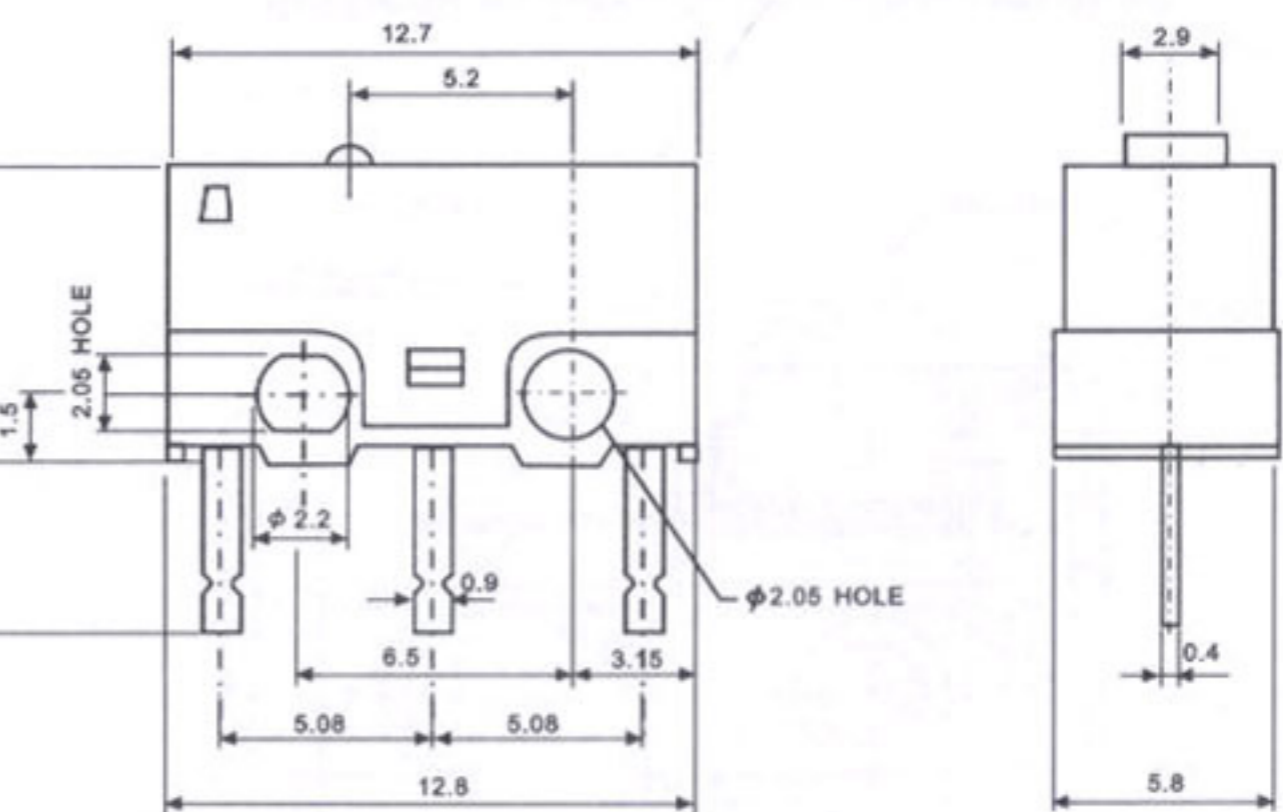
PCB terminal



■ RATINGS

1A 125VAC  
3A 125VAC

■ DIMENSION

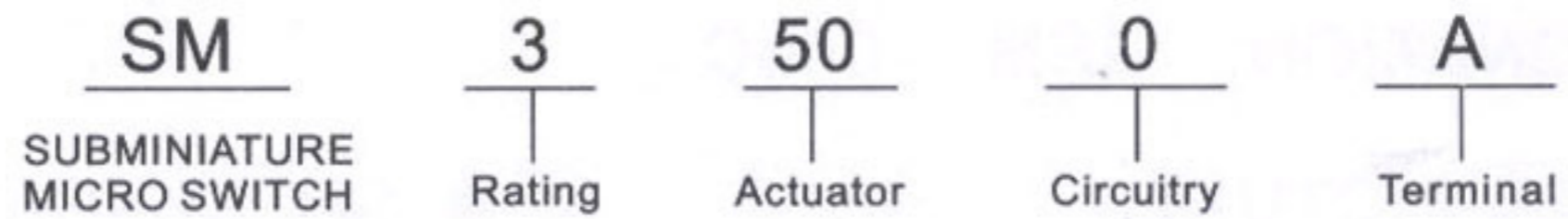


■ OPERATING CHARACTERISTICS

OPERATING CHARACTERISTICS		
OPERATING FORCE	(O.F)	105±20
RELEASE FORCE	(R.F)	72±10
PRE TRAVEL	(P.T)	0.6±0.1
OVER TRAVEL	(O.T)	0.4±0.1
MOVEMENT DIFFERENTIAL	(M.D)	0.1±0.05
OPERATING POSITION	(O.P)	5.1±0.1

# MICRO SWITCHES

## DESIGNATION:



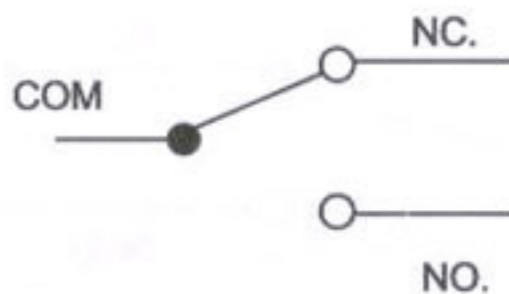
## RATING

Symbol (Numeral)	Rated Current For Resistive Load	Rated Voltage
1	1 A	125/250VAC
2	3 A	
3	5 A	
4	10 A	

## TERMINALS

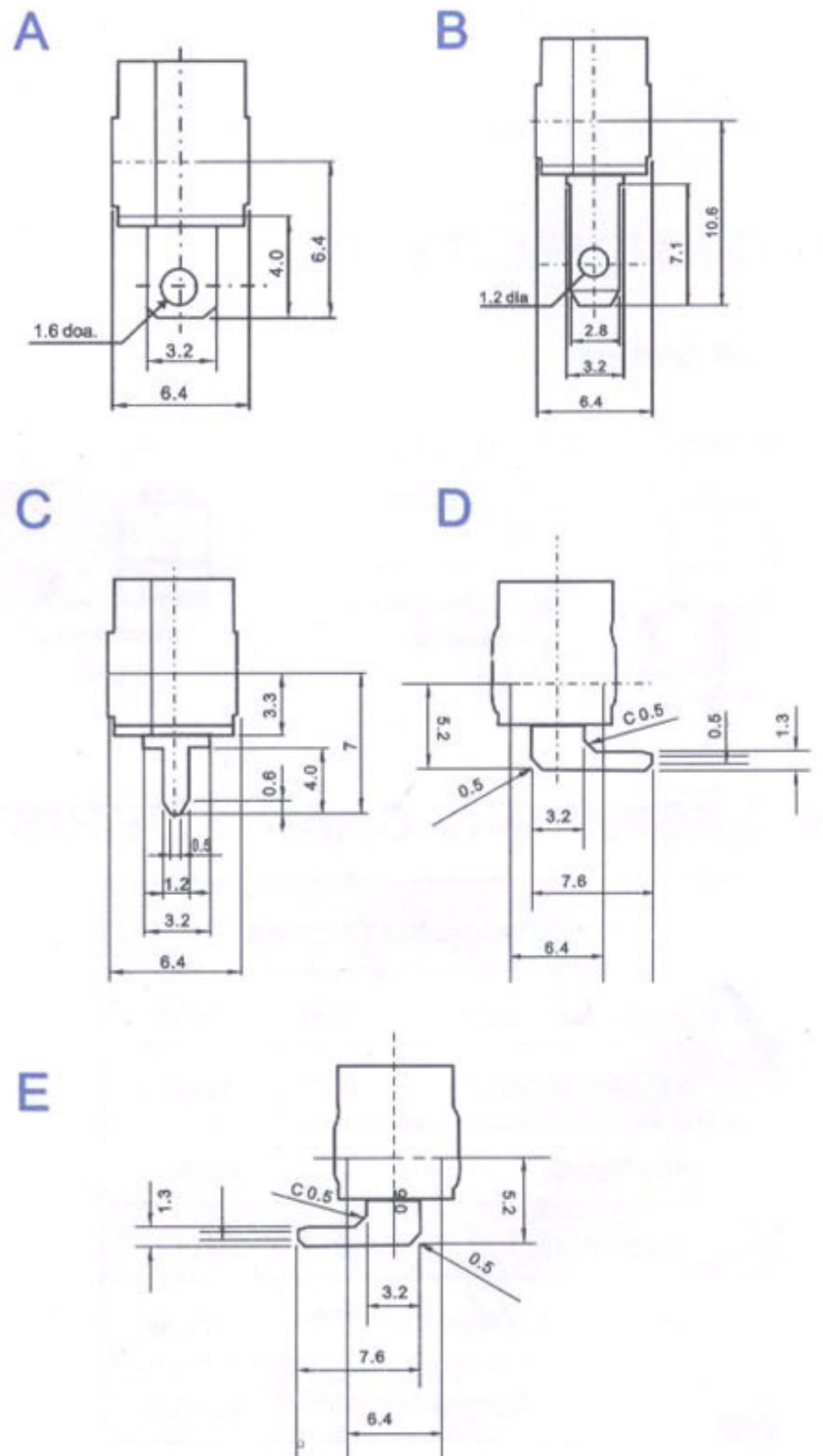
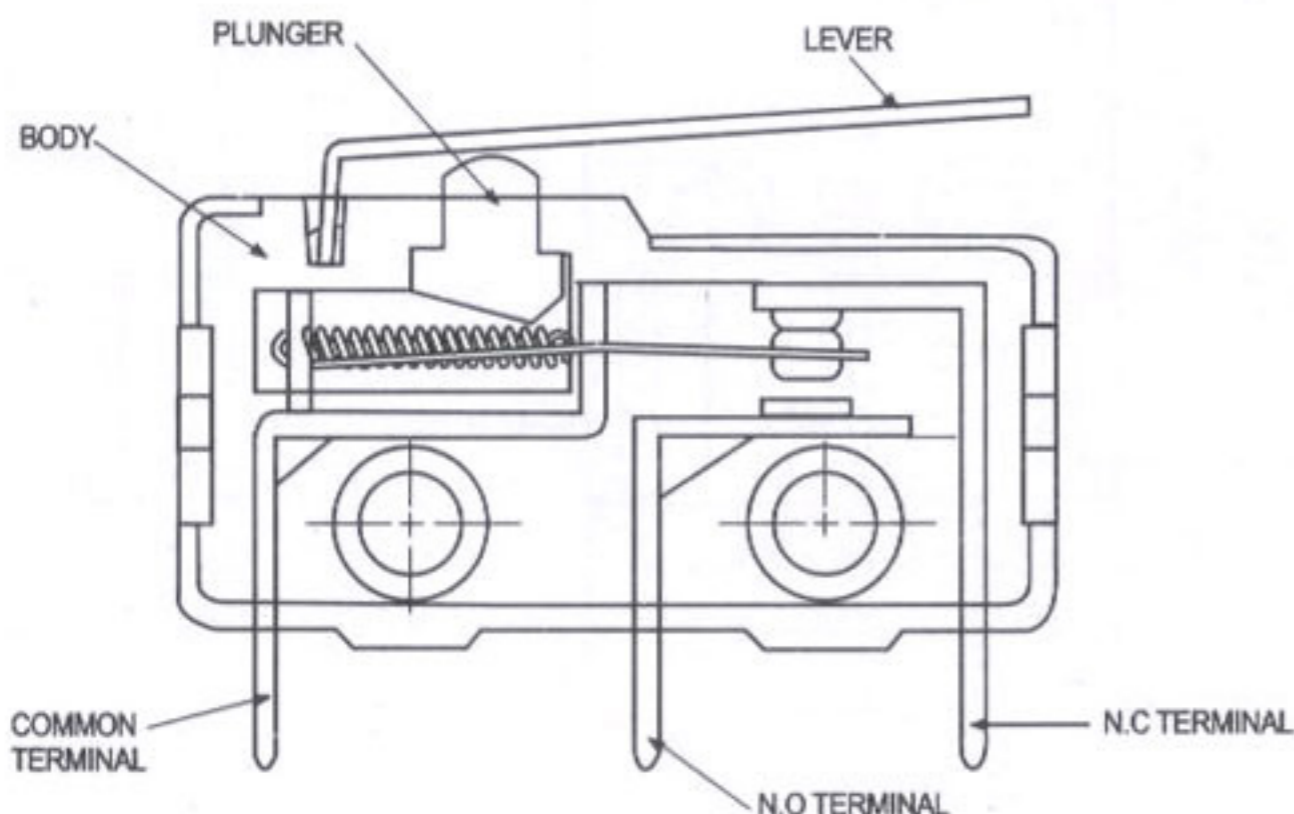
Symbol (letter)	Type of Terminal
A	Solder Terminal
B	Quick Connect Terminal
C	P. C. B. Terminal
D	90° P.C.B. Terminal

## CONTACT CONFIGURATION



## ACTUATORS

1. The symbols of standard actuators are designated from 51 to 57 and the basic type, with no auxiliary Actuator, is indicated by 50.
2. The configuration of actuators refer to the specification as shown, while the detailed descriptions will be found in the attached figure.
3. Many special forms and lengths of actuators are available with tooling charges applying.



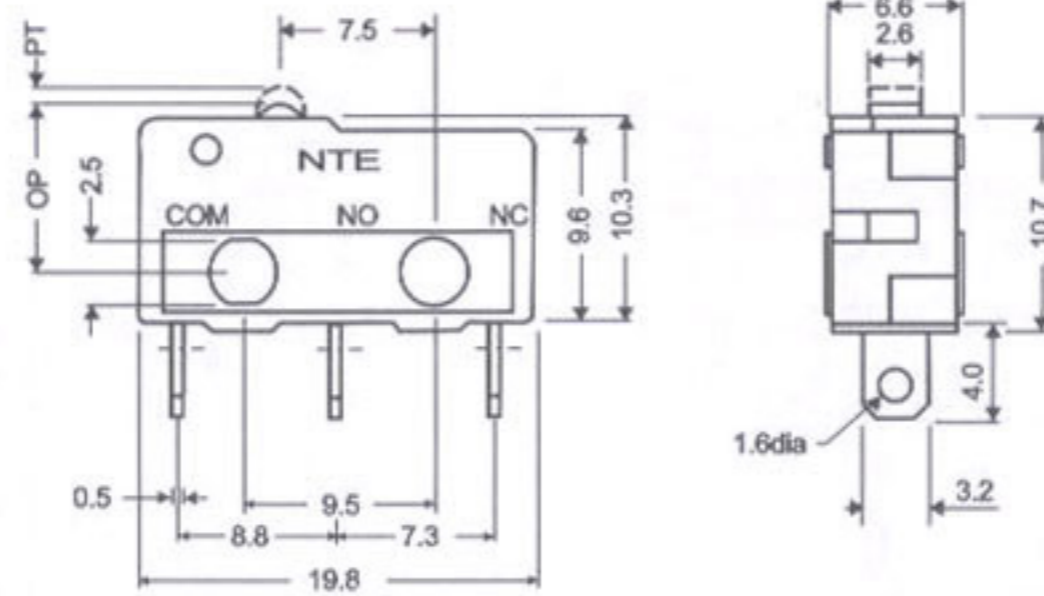
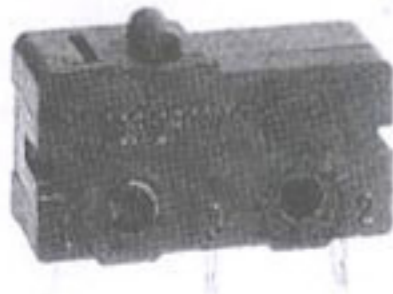
# SM SERIES

## MODEL

## DIMENSION

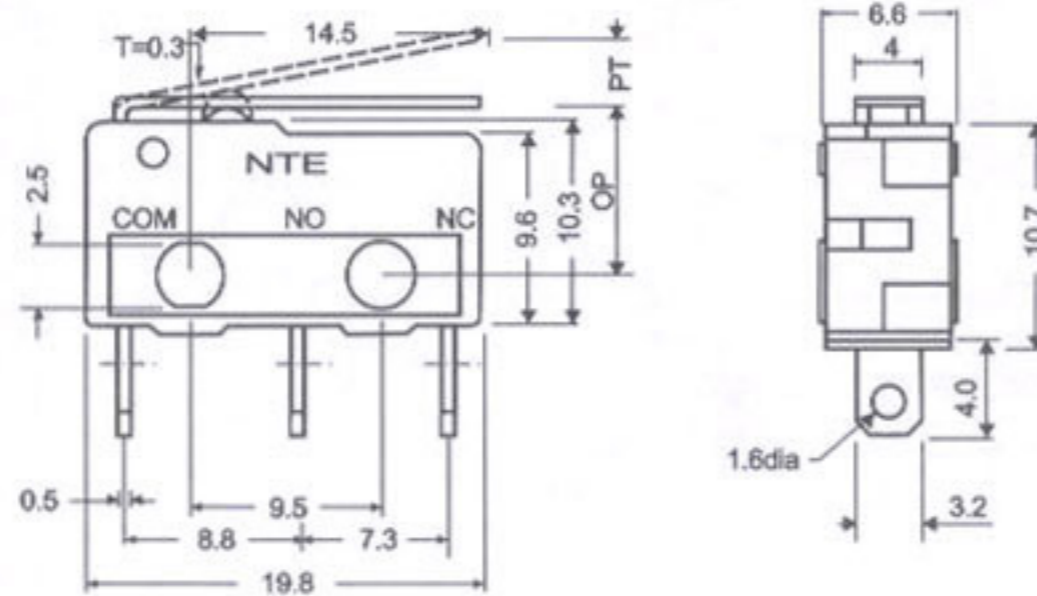
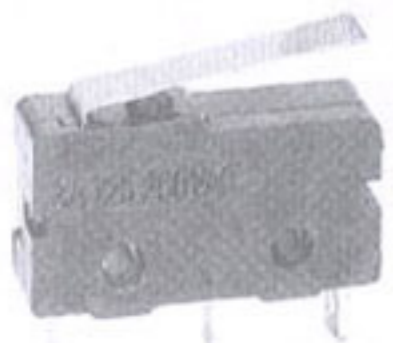
## SPECIFICATION

500A



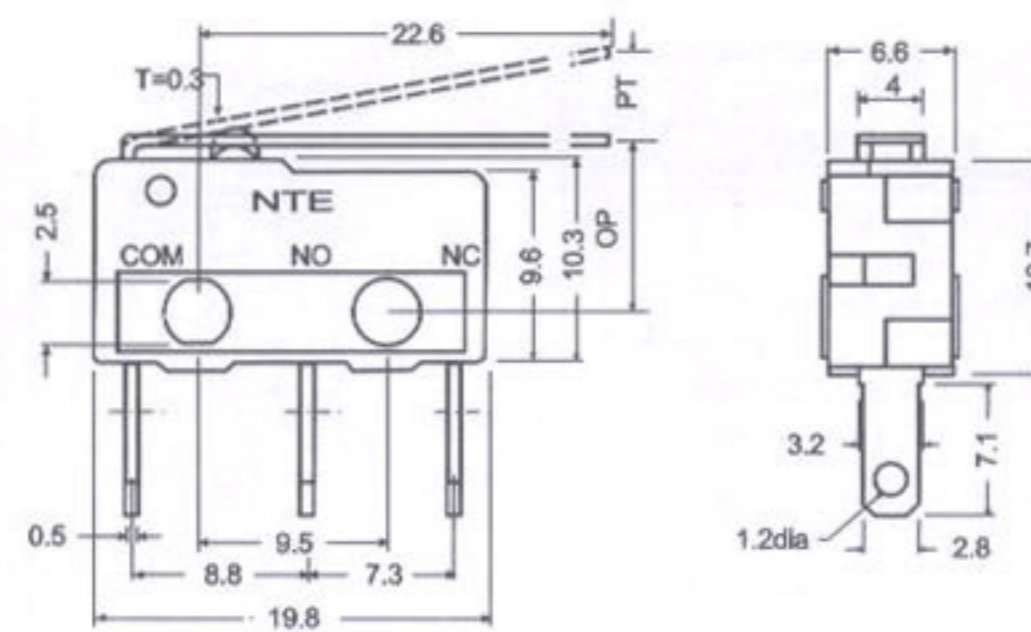
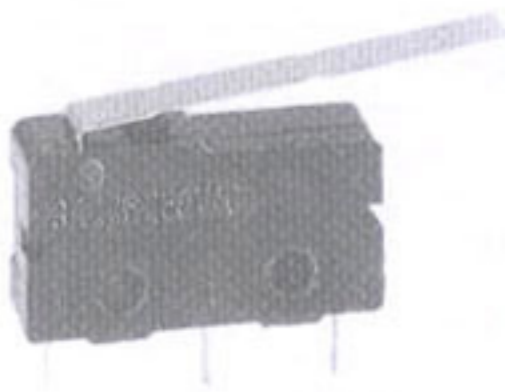
OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		100
RELEASE FORCE (R.F)		48
PRE TRAVEL (P.T)		0.4
OVER TRAVEL (O.T)		1.4
MOVEMENT DIFFERENTIAL (M.D)		0.04
OPERATING POSITION (O.P)		8.9±0.3

510A



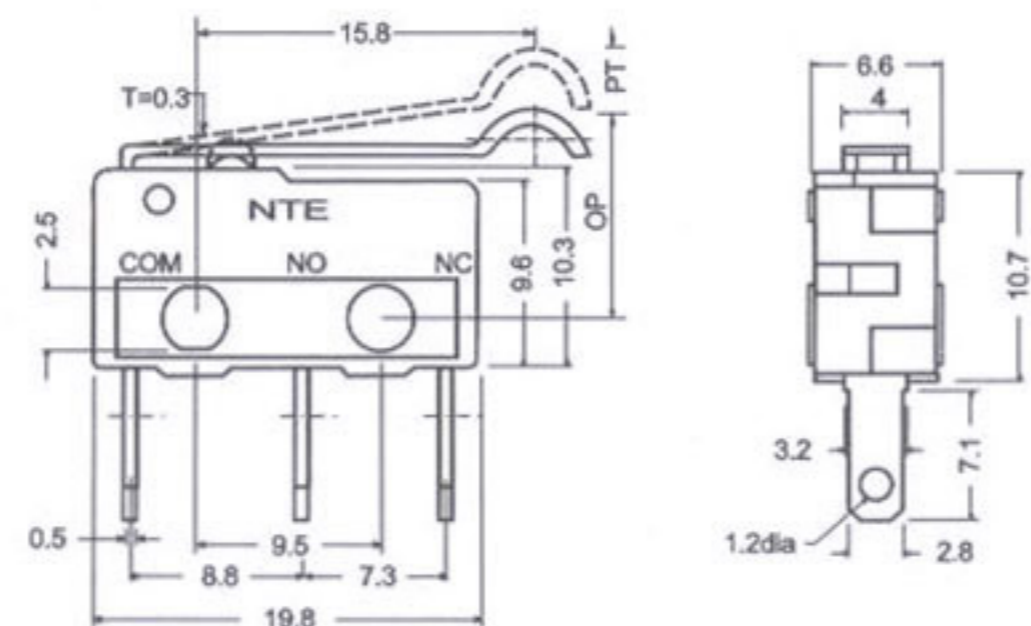
OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		28
RELEASE FORCE (R.F)		9
PRE TRAVEL (P.T)		1.7
OVER TRAVEL (O.T)		2.0
MOVEMENT DIFFERENTIAL (M.D)		0.5
OPERATING POSITION (O.P)		10±0.8

520B



OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		15
RELEASE FORCE (R.F)		6
PRE TRAVEL (P.T)		2.8
OVER TRAVEL (O.T)		3.8
MOVEMENT DIFFERENTIAL (M.D)		1
OPERATING POSITION (O.P)		10.6±1.5

530B

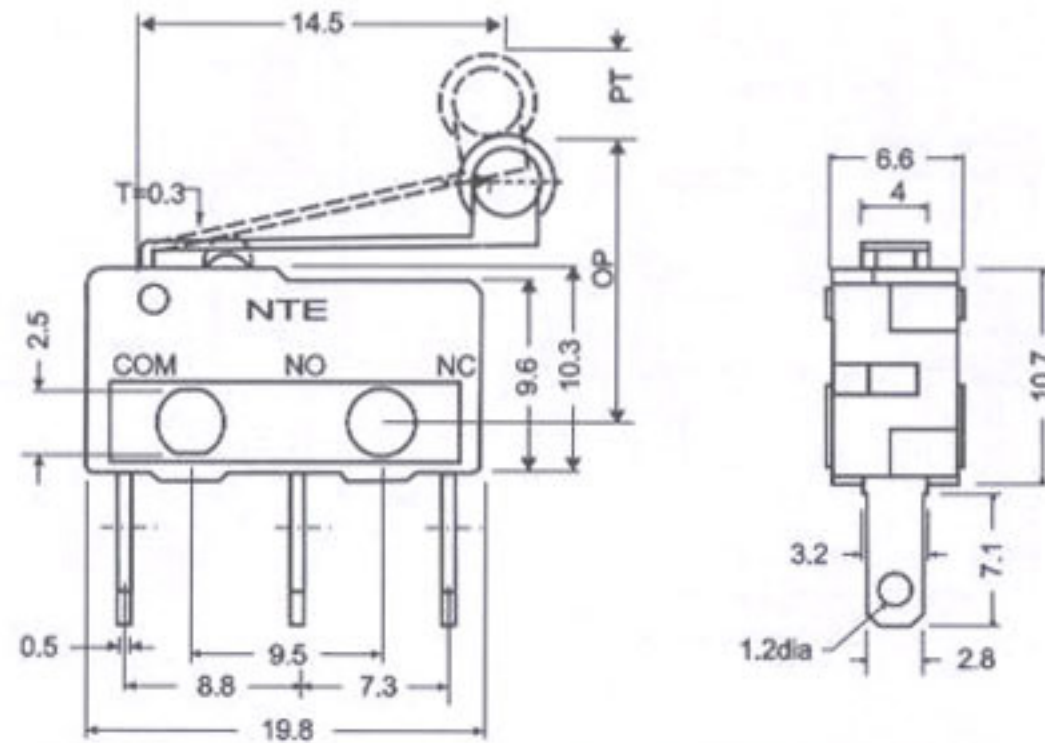


OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		25
RELEASE FORCE (R.F)		10
PRE TRAVEL (P.T)		1.8
OVER TRAVEL (O.T)		3.2
MOVEMENT DIFFERENTIAL (M.D)		0.7
OPERATING POSITION (O.P)		12±1.0

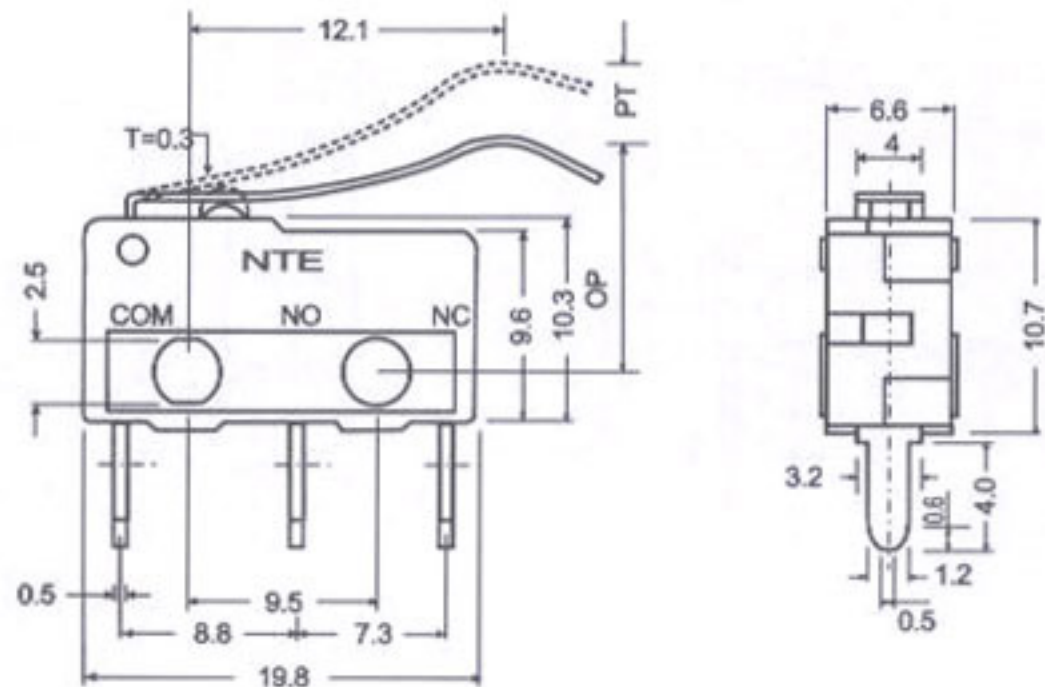
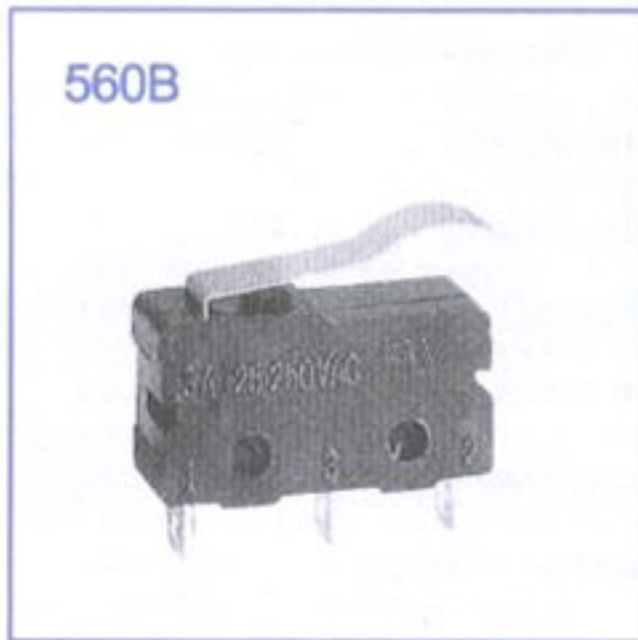
### MODEL

### DIMENSION

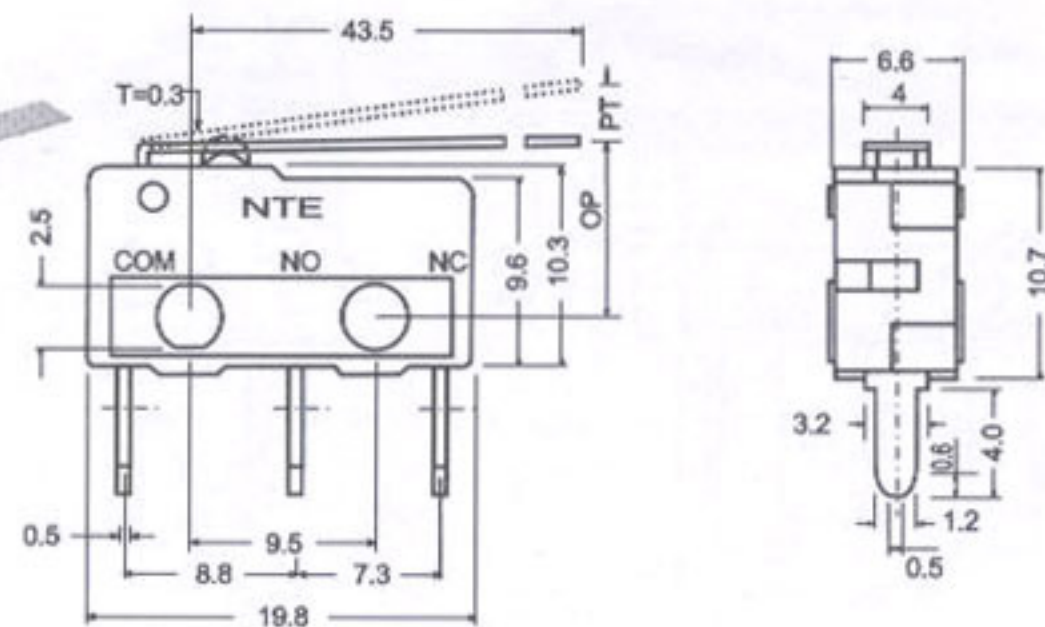
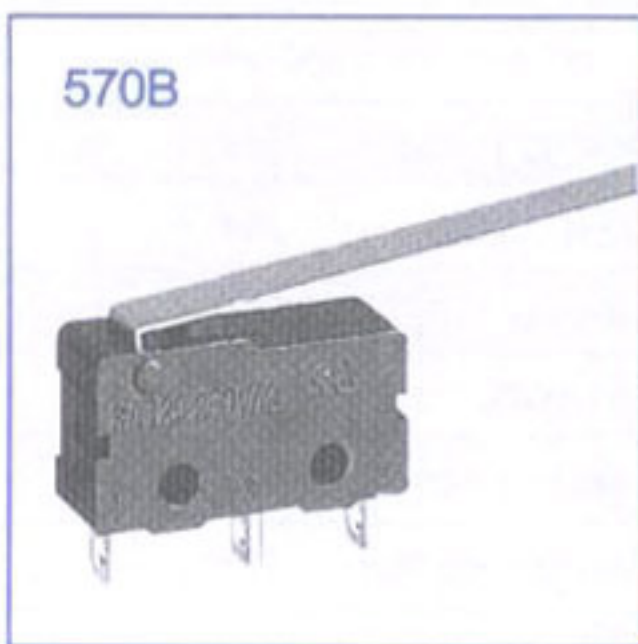
### SPECIFICATION



OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		22
RELEASE FORCE (R.F)		10
PRE TRAVEL (P.T)		1.8
OVER TRAVEL (O.T)		2.3
MOVEMENT DIFFERENTIAL (M.D)		0.5
OPERATING POSITION (O.P)		15±0.8



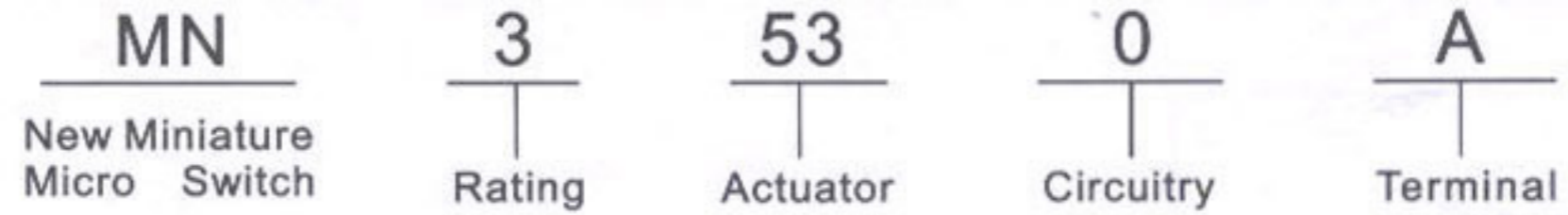
OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		37
RELEASE FORCE (R.F)		10
PRE TRAVEL (P.T)		1.5
OVER TRAVEL (O.T)		2.0
MOVEMENT DIFFERENTIAL (M.D)		0.5
OPERATING POSITION (O.P)		10±0.6



OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		8
RELEASE FORCE (R.F)		4
PRE TRAVEL (P.T)		5.2
OVER TRAVEL (O.T)		3.8
MOVEMENT DIFFERENTIAL (M.D)		1.5
OPERATING POSITION (O.P)		12±0.5

# MN SERIES

## DESIGNATION:



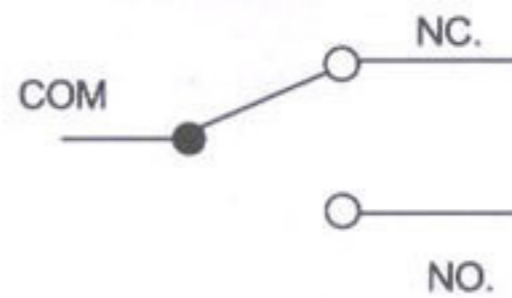
## RATING

Symbol (Numeral)	Rated Current For Resistive Load	Rated Voltage
1	1 A	125/250VAC
2	3 A	
3	5 A	
4	10 A	

## TERMINALS

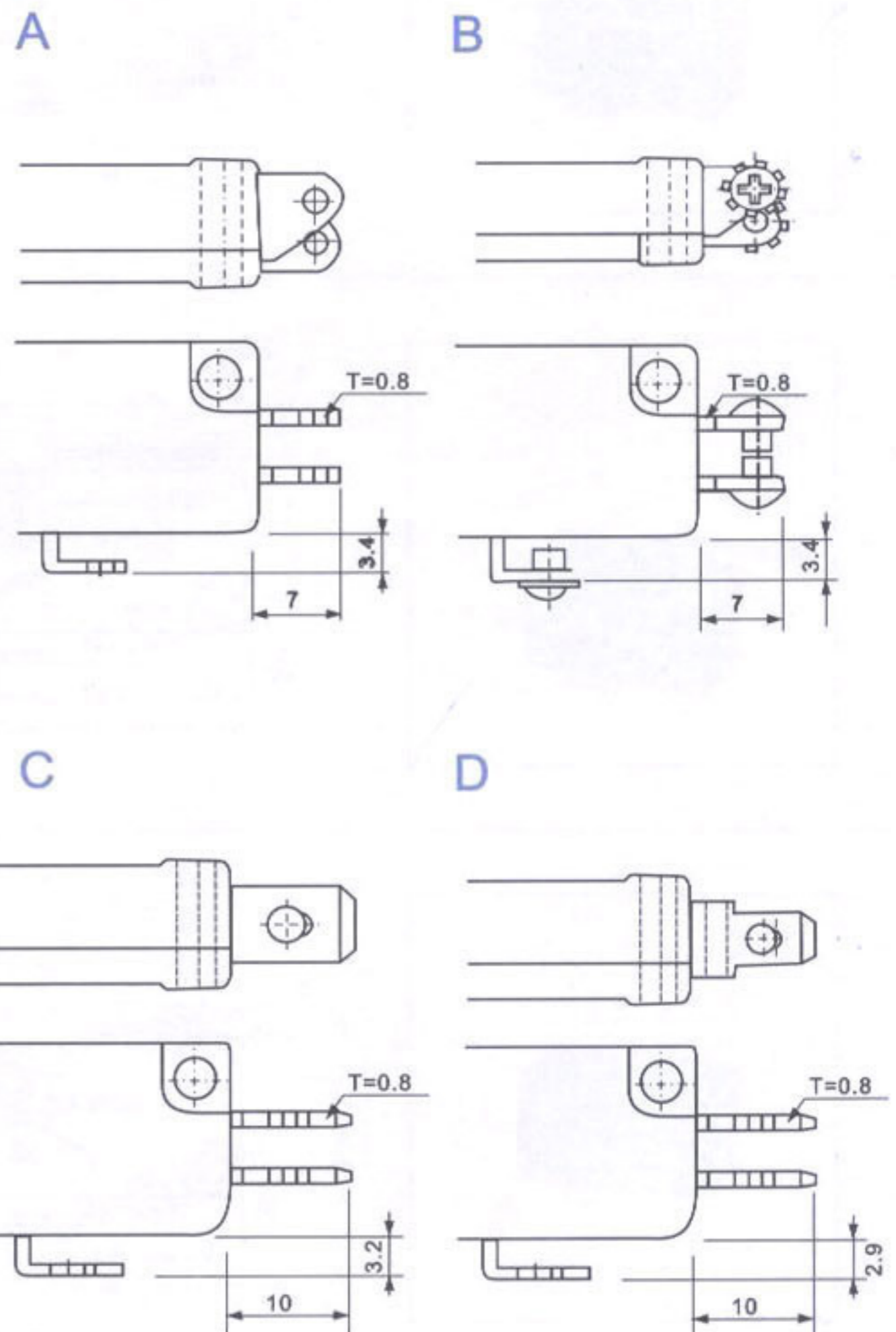
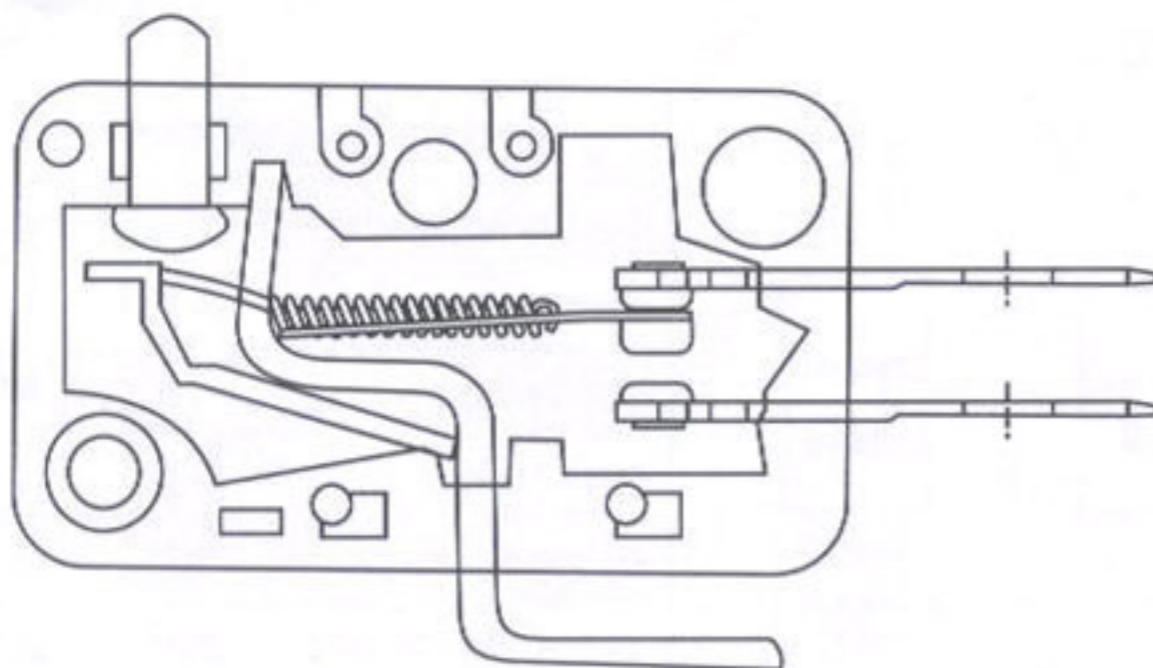
Symbol (letter)	Type of Terminal
A	Solder Terminal
B	Screw Terminal
C	Quick Connect Terminal
D	Quick Connect Terminal

## CONTACT CONFIGURATION



## ACTUATORS

- The symbols of standard actuators are designated from 01 to 06 and the basic type, with no auxiliary Actuator, is indicated by 00.
- The configuration of actuators refer to the specification as shown, while the detailed descriptions will be found in the attached figure.
- Many special forms and lengths of actuators are available with tooling charges applying.

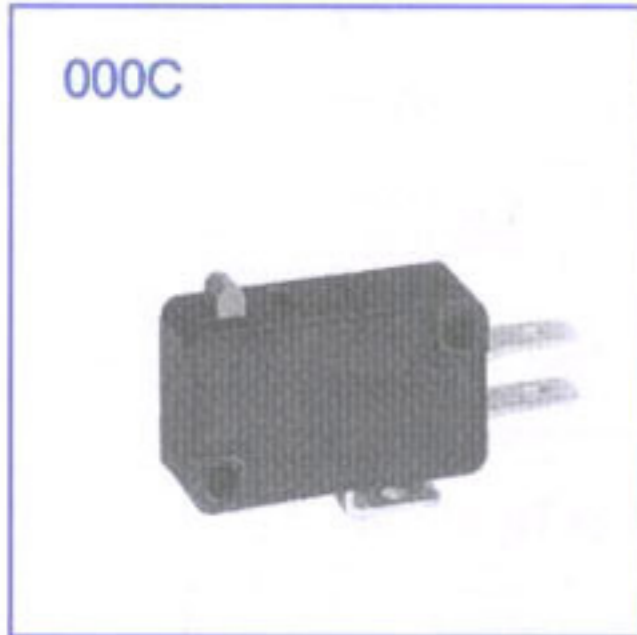


# MICRO SWITCHES

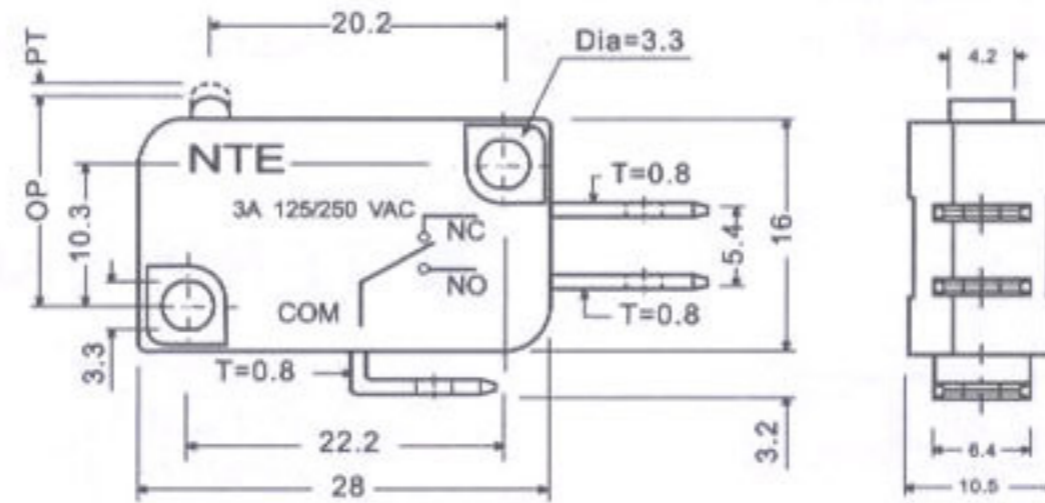
## MODEL

## DIMENSION

## SPECIFICATION



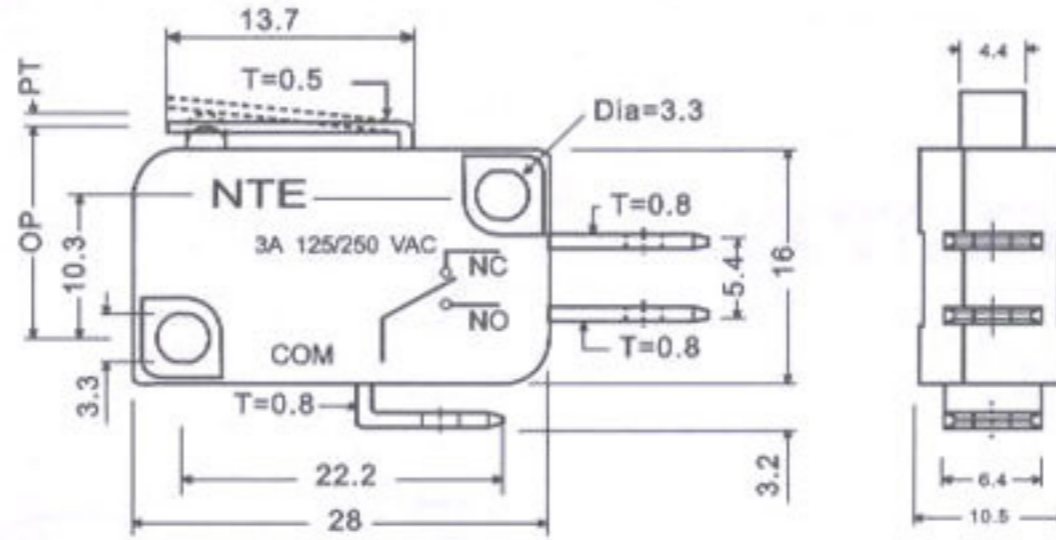
000C



OPERATING CHARACTERISTICS		
OPERATING FORCE	(O.F)	190
RELEASE FORCE	(R.F)	75
PRE TRAVEL	(P.T)	1.0
OVER TRAVEL	(O.T)	1.8
MOVEMENT DIFFERENTIAL	(M.D)	0.3
OPERATING POSITION	(O.P)	15±0.5



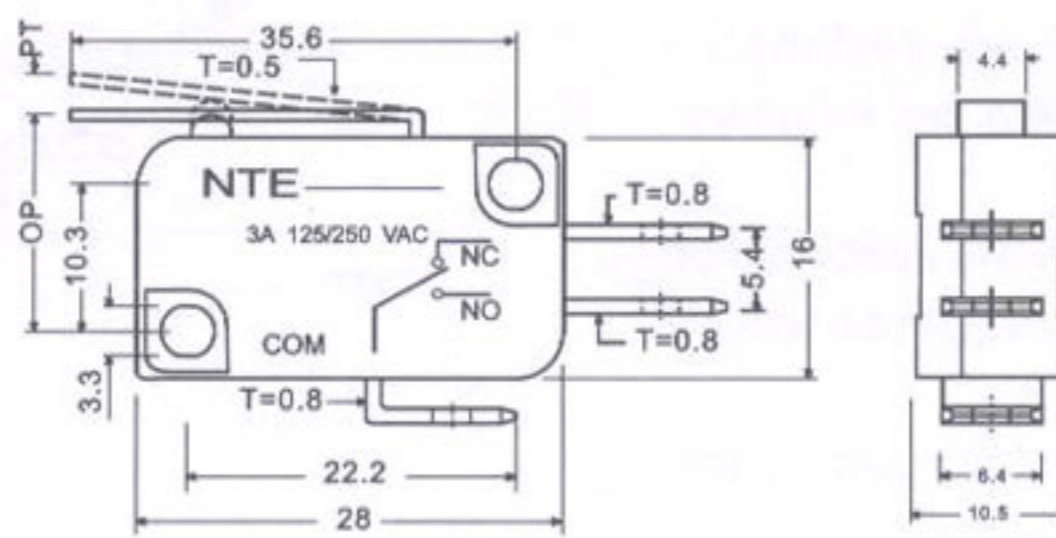
010C



OPERATING CHARACTERISTICS		
OPERATING FORCE	(O.F)	195
RELEASE FORCE	(R.F)	62
PRE TRAVEL	(P.T)	1.0
OVER TRAVEL	(O.T)	1.8
MOVEMENT DIFFERENTIAL	(M.D)	0.3
OPERATING POSITION	(O.P)	15.5±0.5



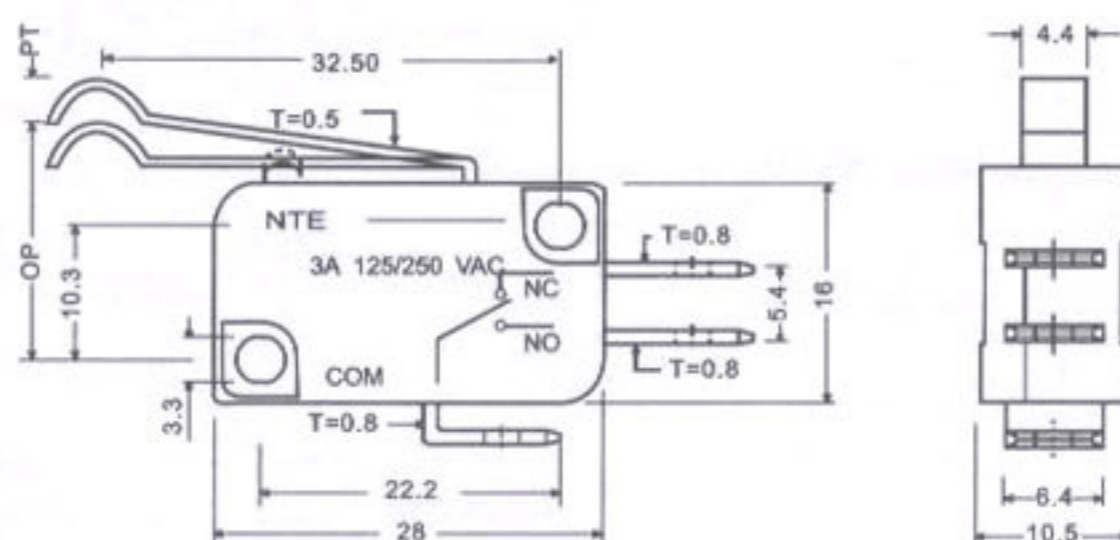
020C



OPERATING CHARACTERISTICS		
OPERATING FORCE	(O.F)	170
RELEASE FORCE	(R.F)	85
PRE TRAVEL	(P.T)	2.6
OVER TRAVEL	(O.T)	2.4
MOVEMENT DIFFERENTIAL	(M.D)	0.6
OPERATING POSITION	(O.P)	15±1.2



040C



OPERATING CHARACTERISTICS		
OPERATING FORCE	(O.F)	100
RELEASE FORCE	(R.F)	58
PRE TRAVEL	(P.T)	3
OVER TRAVEL	(O.T)	3.5
MOVEMENT DIFFERENTIAL	(M.D)	0.6
OPERATING POSITION	(O.P)	19±1.2

# MN SERIES

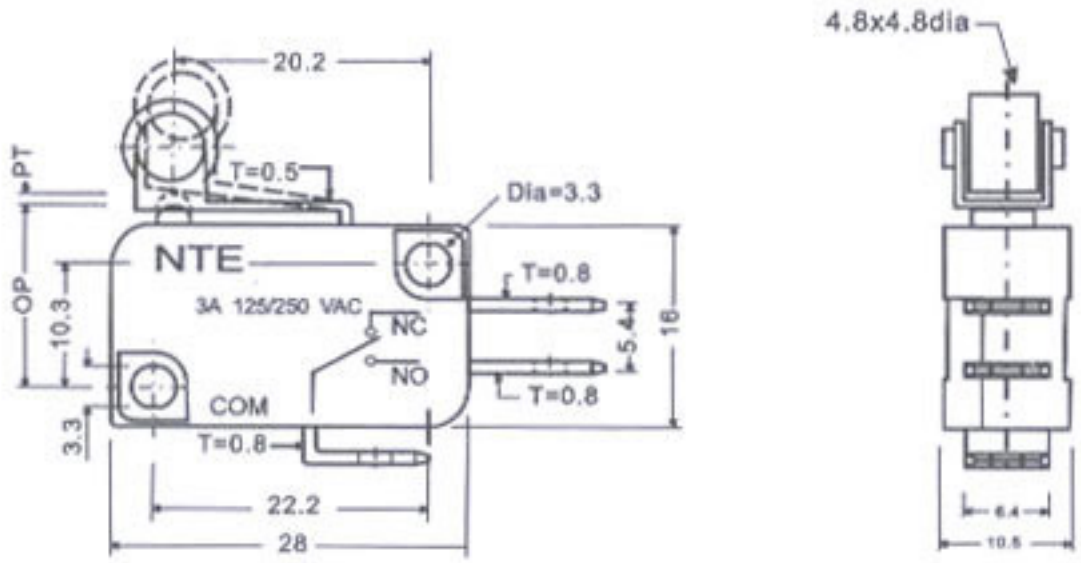
## MODEL

## DIMENSION

## SPECIFICATION



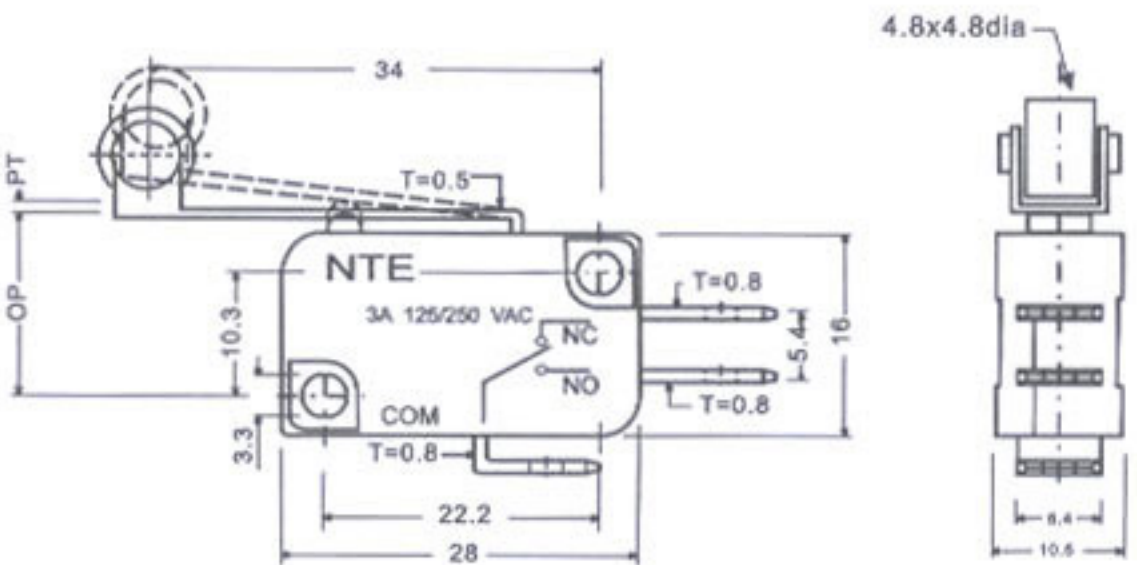
050C



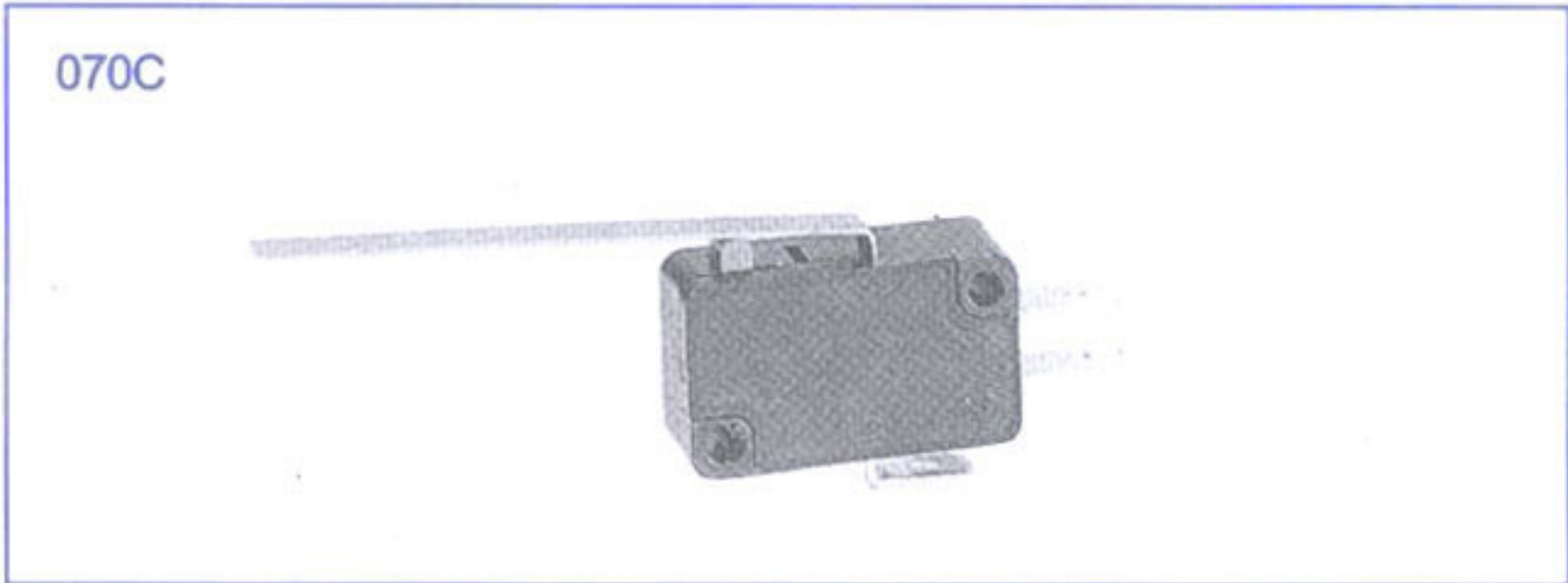
OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		200
RELEASE FORCE (R.F)		60
PRE TRAVEL (P.T)		1.0
OVER TRAVEL (O.T)		1.5
MOVEMENT DIFFERENTIAL (M.D)		0.3
OPERATING POSITION (O.P)		21±0.5



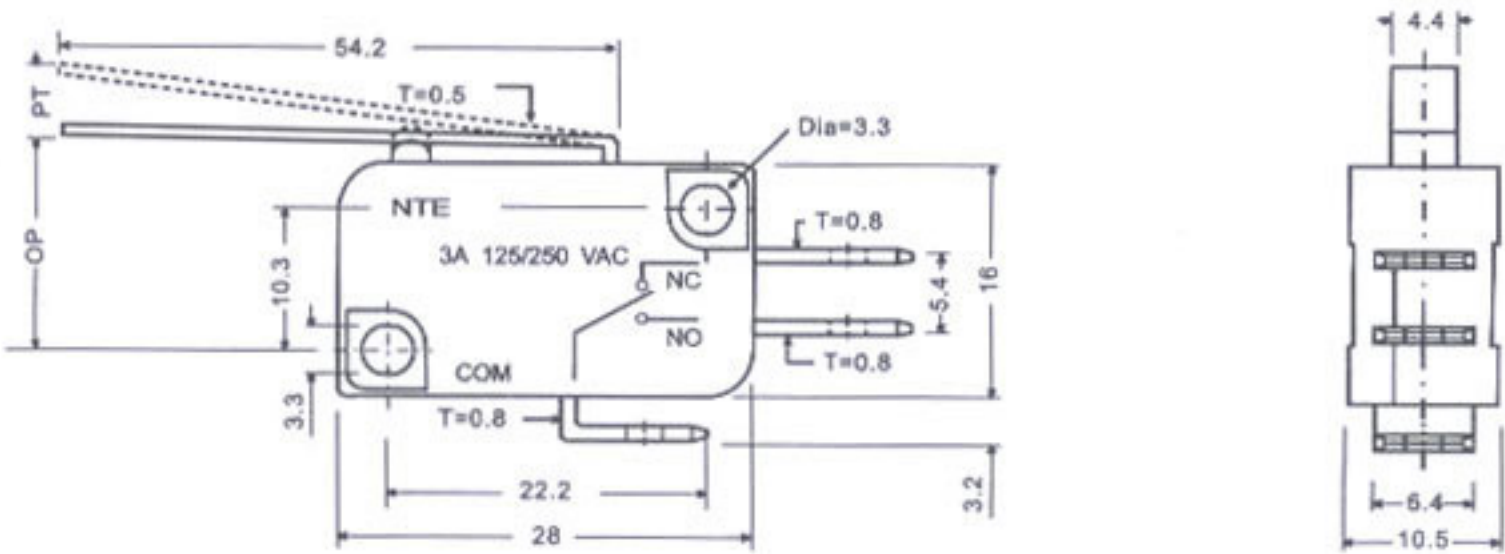
060C



OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		100
RELEASE FORCE (R.F)		56
PRE TRAVEL (P.T)		3
OVER TRAVEL (O.T)		3.5
MOVEMENT DIFFERENTIAL (M.D)		0.6
OPERATING POSITION (O.P)		21.5±1



070C



OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		50
RELEASE FORCE (R.F)		28
PRE TRAVEL (P.T)		5
OVER TRAVEL (O.T)		5.3
MOVEMENT DIFFERENTIAL (M.D)		1.4
OPERATING POSITION (O.P)		15±2



# MICRO SWITCHES

## DESIGNATION

MM  
Miniature Micro Switch

5  
Rating

53  
Actuator

0  
Circuitry

A  
Terminal

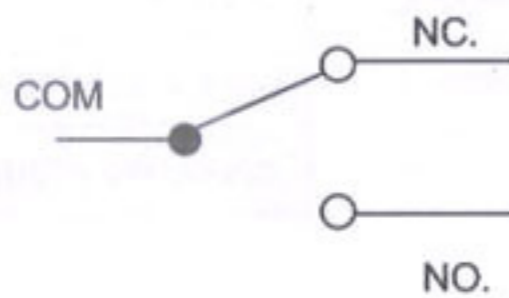
## RATING

Symbol (Numeral)	Rated Current For Resistive Load	Rated Voltage
1	1 A	125/250VAC
2	3 A	
3	5 A	
4	10 A	
5	15 A	

## TERMINALS

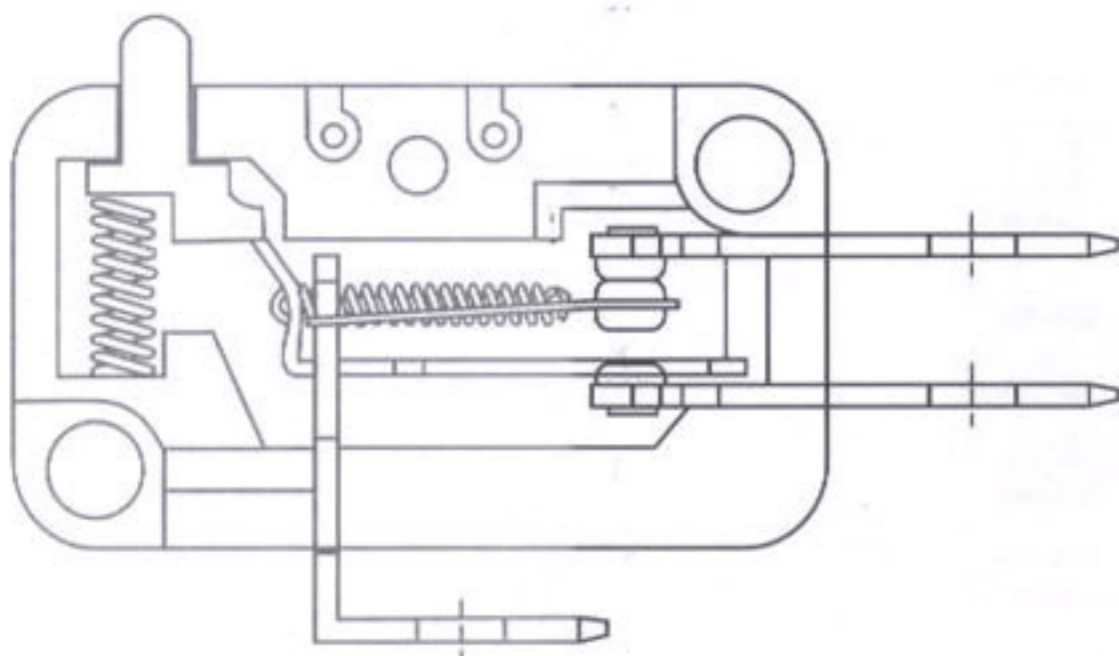
Symbol (letter)	Type of Terminal
A	Solder Terminal
B	Screw Terminal
C	Quick Connect Terminal
D	Quick Connect Terminal

## CONTACT CONFIGURATION

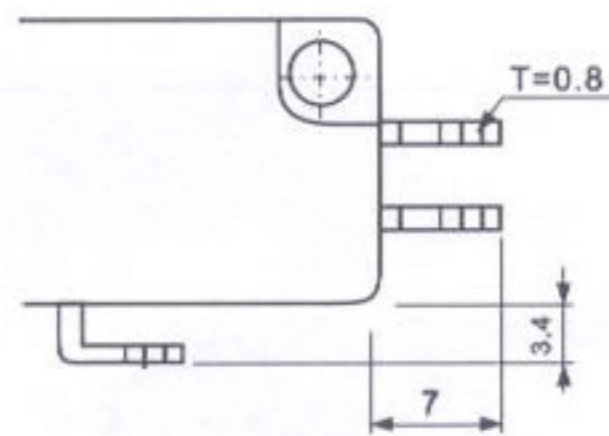
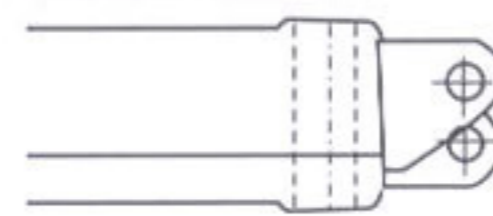


## ACTUATORS

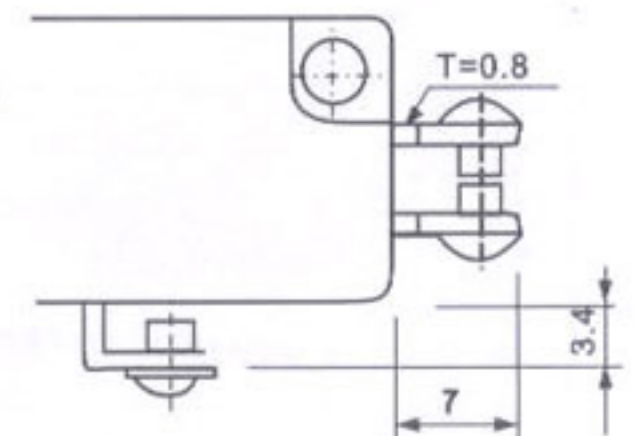
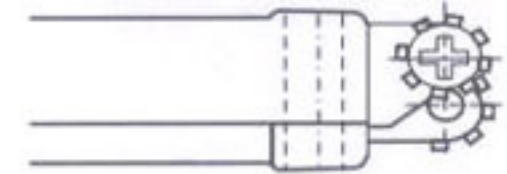
1. The symbols of standard actuators are designated from 01 to 06 and the basic type, with no auxiliary Actuator, is indicated by 00.
2. The configuration of actuators refer to the specification as shown, while the detailed descriptions will be found in the attached figure.
3. Many special forms and lengths of actuators are available with tooling charges applying.



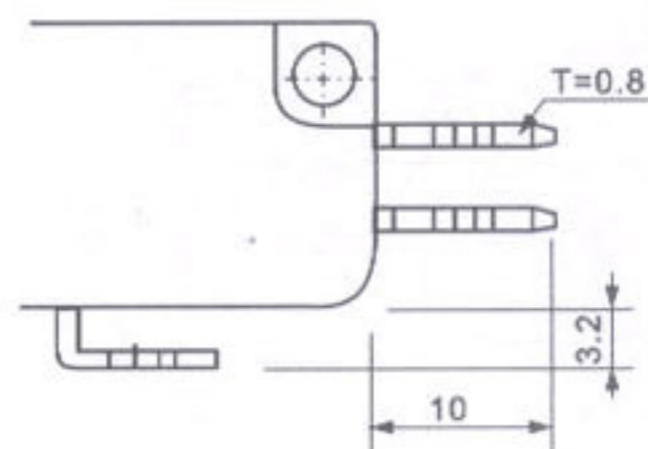
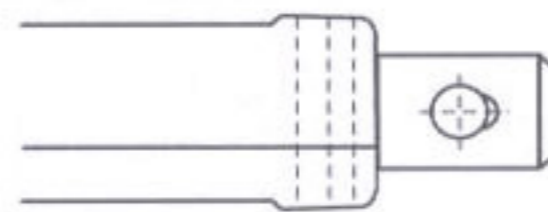
A



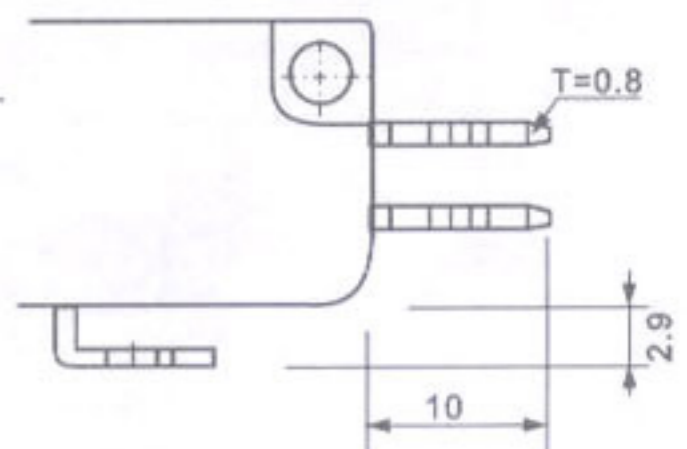
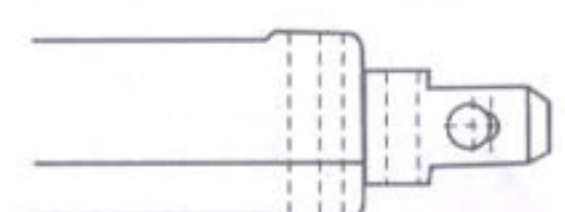
B



C



D



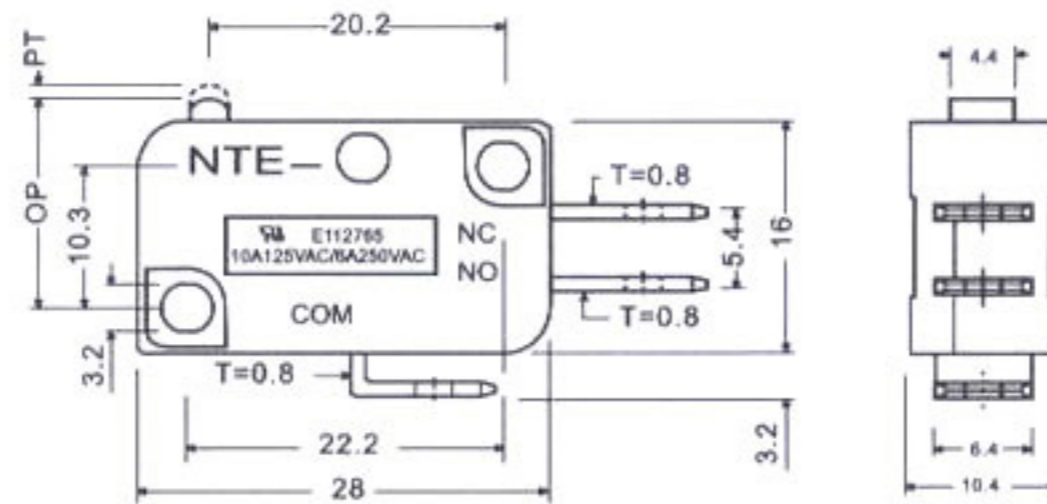
# MM SERIES

## MODEL

## DIMENSION

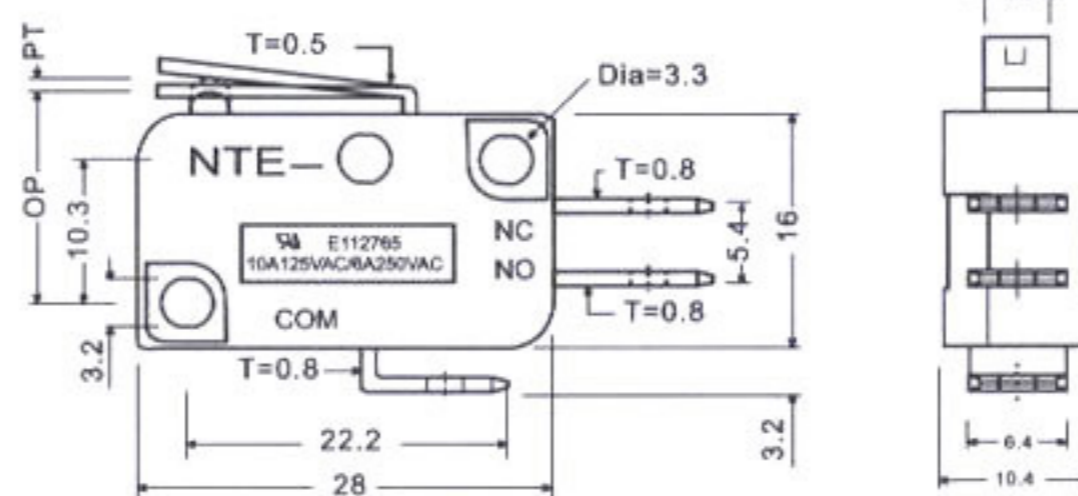
## SPECIFICATION

000C



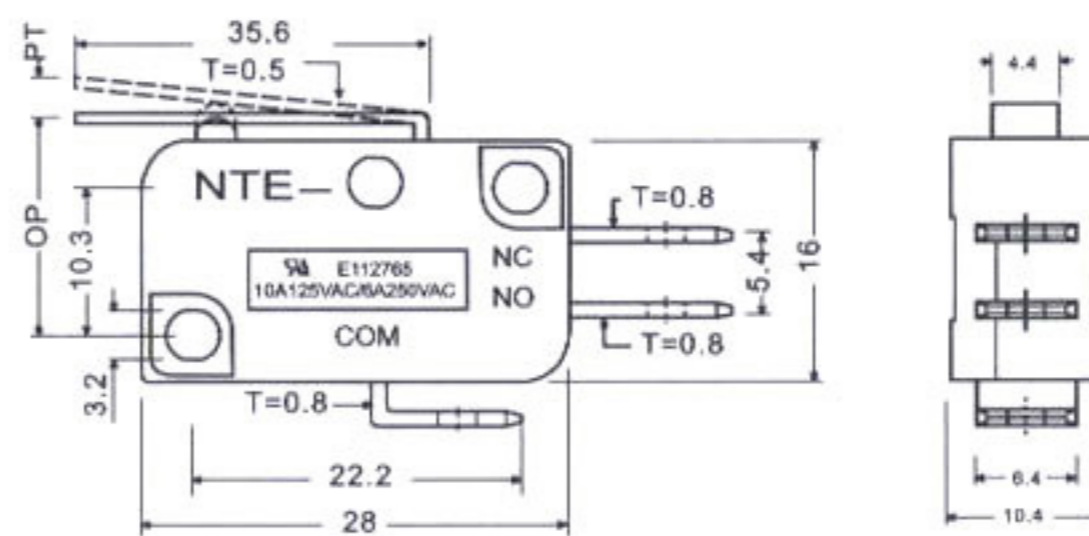
OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		300
RELEASE FORCE (R.F)		68
PRE TRAVEL (P.T)		1.2
OVER TRAVEL (O.T)		1.4
MOVEMENT DIFFERENTIAL (M.D)		0.3
OPERATING POSITION (O.P)		14.6±0.3

010C



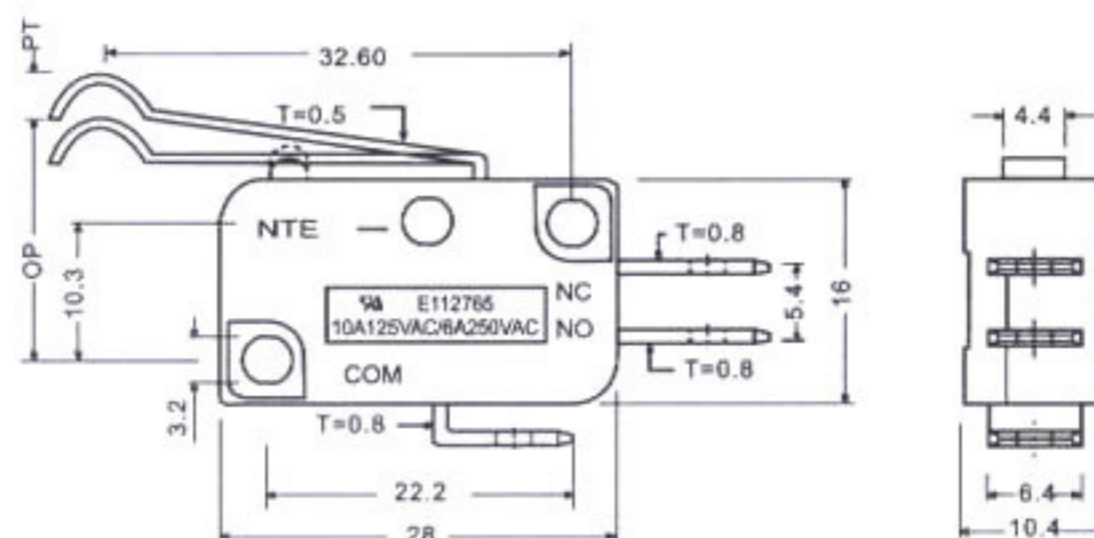
OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		320
RELEASE FORCE (R.F)		120
PRE TRAVEL (P.T)		1.3
OVER TRAVEL (O.T)		1.3
MOVEMENT DIFFERENTIAL (M.D)		0.3
OPERATING POSITION (O.P)		14.8±0.5

020C



OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		170
RELEASE FORCE (R.F)		76
PRE TRAVEL (P.T)		2.4
OVER TRAVEL (O.T)		2.5
MOVEMENT DIFFERENTIAL (M.D)		0.6
OPERATING POSITION (O.P)		14.5±1

040C



OPERATING CHARACTERISTICS		
OPERATING FORCE (O.F)		140
RELEASE FORCE (R.F)		80
PRE TRAVEL (P.T)		2.0
OVER TRAVEL (O.T)		2.4
MOVEMENT DIFFERENTIAL (M.D)		0.6
OPERATING POSITION (O.P)		17.7±1

