

# Micro Switches

01



**MSA**

130



**MSS**

132

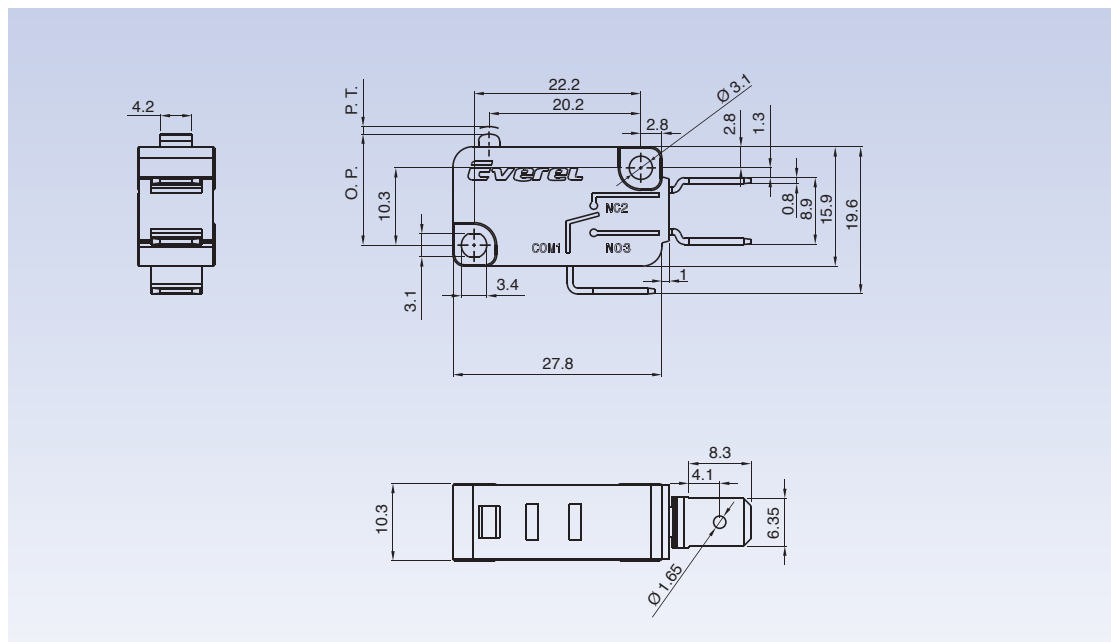


# MSA



<b>OPERATING SPEED</b>	0,1 - 1 m/s (related to actuator form)
<b>OPERATING FREQUENCY</b>	Mechanical 60 cycles/min; Electrical 15 cycle/min
<b>INSULATION RESISTANCE</b>	≥100MΩ (500 VDC)
<b>CONTACT RESISTANCE</b>	< 100mΩ (initial value)
<b>TEST VOLTAGE (each terminal same polarity)</b>	AC1000V, 50/60HZ, 1MIN
<b>TEST VOLTAGE (each terminal and non current carrying metal parts)</b>	AC1500V, 50/60HZ, 1MIN
<b>TEMPERATURE GRADE</b>	-25 °C ≤ T ≤ 125 °C
<b>VIBRATION RESISTANCE</b>	10-55Hz, 1.5mm, double amplitude
<b>LIFE EXPECTANCY</b>	Mechanical ≥ 10 Mio cycles Electrical ≥ 50 k cycles

## DRAWING



### TEMPERATURE GRADE

**T**  
25T125

### ELECTRICAL RATING

**16**  
16 (4) A / 250 VAC - 5E4  
μ disconnection  
EN 61058

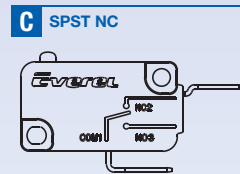
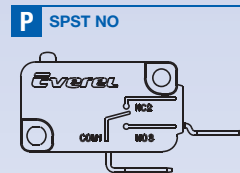
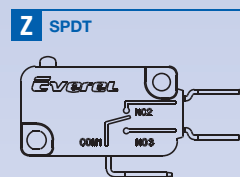
16 A - 120/250 VAC  
1/2 HP - 120/250 VAC  
UL 1054

**26**  
26 (10) A / 250 VAC - 5E4  
μ disconnection  
EN 61058

### TERMINAL STYLE

**C1**  
6.3 X 0.8

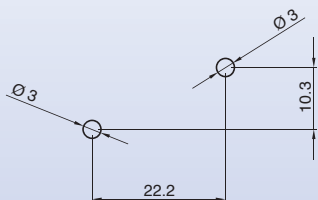
### CIRCUIT CODE



### OPERATING FORCE

**200**  
Electrical Rating 16  
200 gf 1,96N

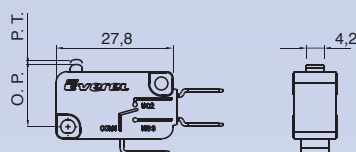
**300**  
Electrical Rating 26  
300 gf 2,94N



M	S	A	TEMP. GRADE	ELECTRICAL RATING	TERMINAL STYLE	CIRCUIT CODE	OPERATING FORCE	LEVER TYPE

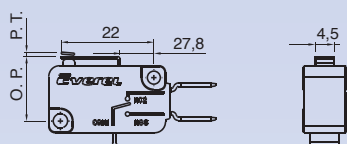
**ACCESSORIES: LEVERS AVAILABLE**

**000**



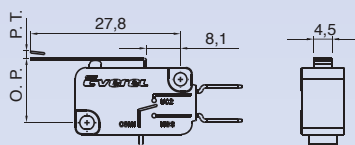
PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.96	200	0.49	50	1.6	0.8	0.4	14.7

**A01**



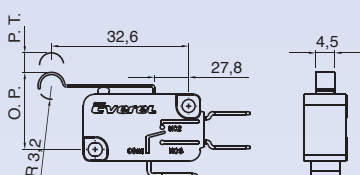
PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.96	200	0.49	50	1.6	0.8	0.4	15.3

**A02**



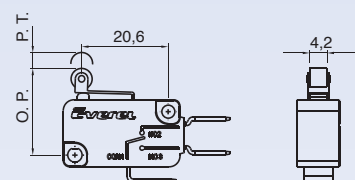
PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.18	120	0.20	20	3.2	1.3	1.2	15.3

**A04**



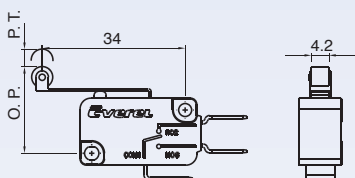
PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.18	120	0.20	20	3.2	1.3	1.2	18.3

**A05**



PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
2.35	240	0.39	40	1.6	0.8	0.4	20.6

**A06**



PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.18	120	0.20	20	3.2	1.3	1.2	20.6

**OF** = Operating Force      **OT** = Over Travel  
**RF** = Related Force      **DT** = Different Travel  
**PT** = Pre Travel          **OP** = Operating Position

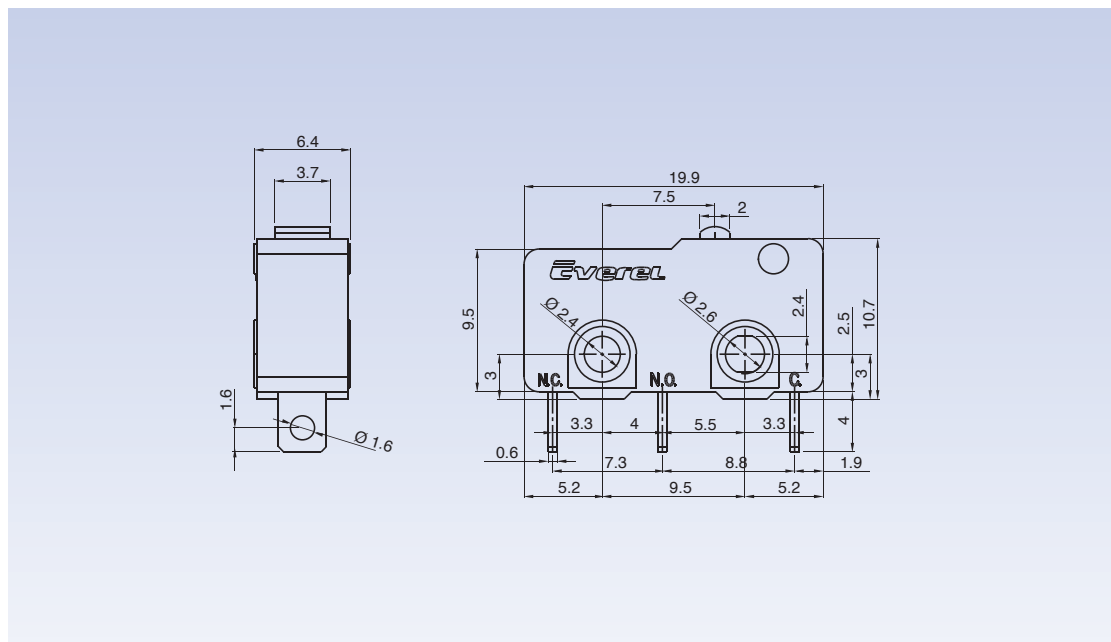


# MSS

<b>OPERATING SPEED</b>	0,1 - 1 m/s (related to actuator form)
<b>OPERATING FREQUENCY</b>	Mechanical 60 cycles/min; Electrical 15 cycle/min
<b>INSULATION RESISTANCE</b>	≥100MΩ (500 VDC)
<b>CONTACT RESISTANCE</b>	< 100mΩ (initial value)
<b>TEST VOLTAGE (each terminal same polarity)</b>	AC1000V, 50/60HZ, 1MIN
<b>TEST VOLTAGE (each terminal and non current carrying metal parts)</b>	AC1500V, 50/60HZ, 1MIN
<b>TEMPERATURE GRADE</b>	-25 °C ≤ T ≤ 125 °C
<b>VIBRATION RESISTANCE</b>	10-55Hz, 1.5mm, double amplitude
<b>LIFE EXPECTANCY</b>	Mechanical ≥ 10 Mio cycles Electrical ≥ 50 k cycles



## DRAWING



- M
- S
- S
- ?
- ?
- ?
- ?
- ?
- ?
- ?
- ?

### ELECTRICAL RATING

**05**  
5 A - 125/250 VAC - 5E4  
25T125  
µ disconnection  
EN 61058

5 A - 125/250 VAC  
1/8 HP - 125/250 VAC  
UL 1054

**12**  
12 (6) A - 125/250 VAC  
40T125  
µ disconnection  
EN 61058

12 A - 125/250 VAC  
UL 1054

### OPERATING FORCE

**150** Electrical rating 05  
150 gf

**350** Electrical rating 12  
350 gf

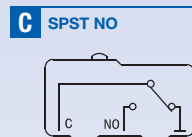
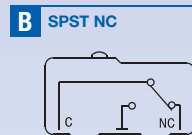
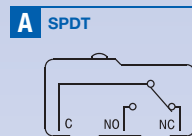
### TERMINAL STYLE

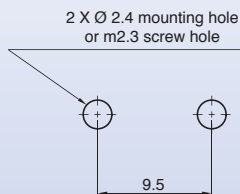
**S**  
Solder connect

### LEVER TYPE

**00**  
No lever  
  
All levers available in Accessories section

### CIRCUIT CODE

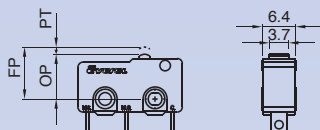




ELECTRICAL RATING		OPERATING FORCE		TERMINAL STYLE	LEVER TYPE	CIRCUIT CODE
M	S	S				

**ACCESSORIES: LEVERS AVAILABLE**

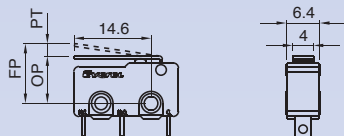
00



**PARAMETERS**

OF Max		RF Min		PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
(N)	(gf)	(N)	(gf)					
1.47	150	0.34	35	1.0	0.4	0.2	9.1	8.5

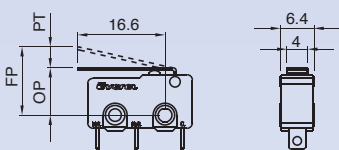
01



**PARAMETERS**

OF Max		RF Min		PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
(N)	(gf)	(N)	(gf)					
0.49	50	0.078	8	8	3.6	1.0	11.7	8.9

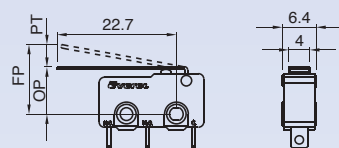
02



**PARAMETERS**

OF Max		RF Min		PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
(N)	(gf)	(N)	(gf)					
0.44	45	0.059	6	4.0	0.6	1.0	12.0	8.9

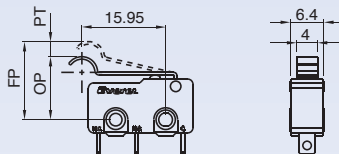
03



**PARAMETERS**

OF Max		RF Min		PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
(N)	(gf)	(N)	(gf)					
0.34	35	0.059	6	6.1	0.8	1.8	13.5	8.9

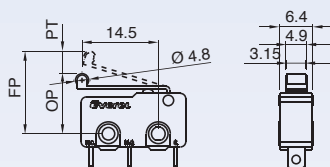
05



**PARAMETERS**

OF Max		RF Min		PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
(N)	(gf)	(N)	(gf)					
0.44	45	0.059	6	5.0	0.6	1.0	18.5	12.2

06



**PARAMETERS**

OF Max		RF Min		PT Max (mm)	OT Min (mm)	DT Max (mm)	FP Max (mm)	OP (mm)
(N)	(gf)	(N)	(gf)					
0.49	50	0.078	8	3.8	0.8	1.0	17.6	14.6

**OF** = Operating Force  
**RF** = Related Force  
**PT** = Pre Travel  
**OT** = Over Travel  
**DT** = Different Travel  
**FP** = Free Position  
**OP** = Operating Position