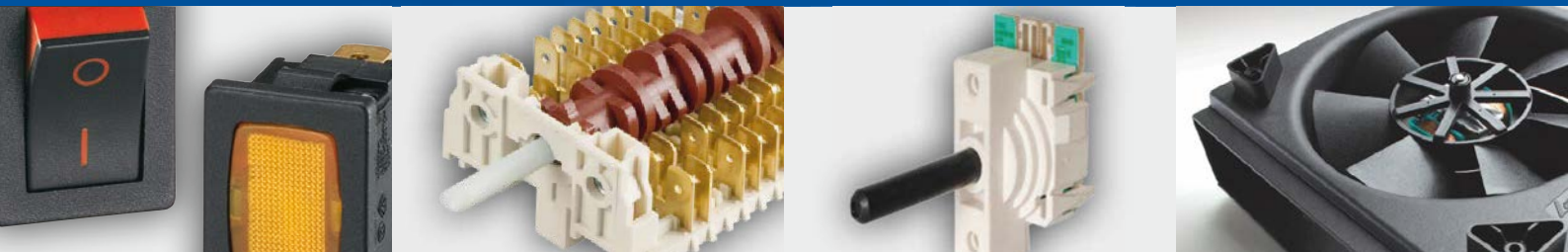


# 30 **CVEREL**

THE WORLD IN A CLICK



## MICRO SWITCHES



**Dreefs**

 **SIGNAL LUX**

**givem**

**M MOLVENO**

 **KAUTT & BUX**

# Micro Switches

01



**MSA**

144



**MSS**

146

---

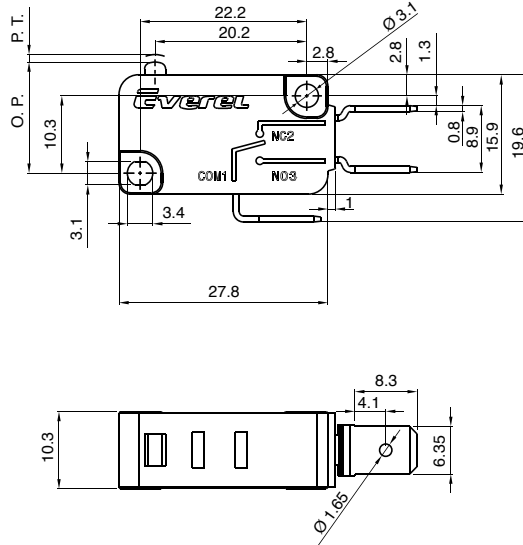
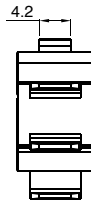


# MSA



<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**

**ELECTRICAL RATING**

**TERMINAL STYLE**

**CIRCUIT CODE**

**OPERATING FORCE**

**T**  
25T125

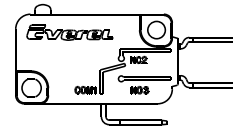
**16**  
16 (4) A / 250 VAC - 5E4  
μ disconnection  
EN 61058

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

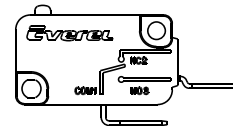
**26**  
26 (10) A / 250 VAC - 5E4  
μ disconnection  
EN 61058

**C1**  
6.3 X 0.8

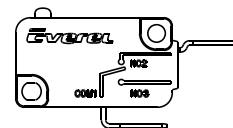
**Z** SPDT



**P** SPST NO

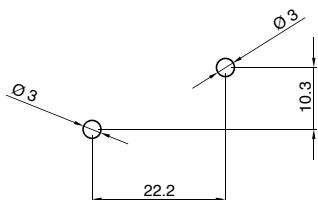


**C** SPST NC



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

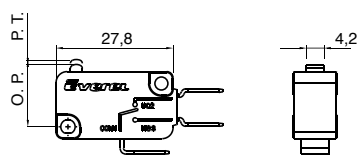
**300**  
Electrical Rating 26  
300 gf 2,94N



TEMP. GRADE		ELECTRICAL RATING		TERMINAL STYLE		CIRCUIT CODE		OPERATING FORCE			LEVER TYPE			
M	S	A										0	0	0

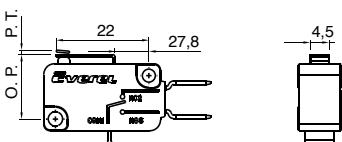
**ACCESSORIES: LEVERS AVAILABLE**

**000**



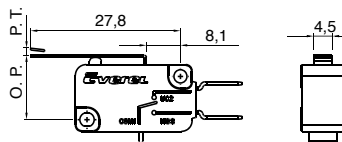
PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.96	200	0.49	50	1.6	0.8	0.4	14.7

**A01**



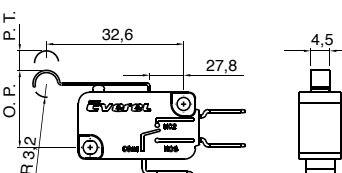
PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.96	200	0.49	50	1.6	0.8	0.4	15.3

**A02**



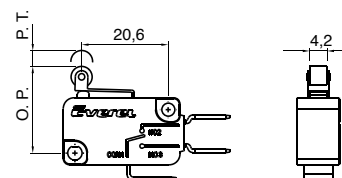
PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.18	120	0.20	20	3.2	1.3	1.2	15.3

**A04**



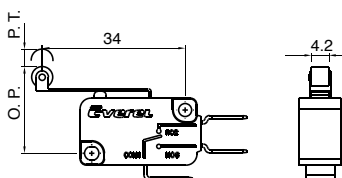
PARAMETERS							
OF Max		RF Min		PT Max	OT Min	DT Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)
1.18	120	0.20	20	3.2	1.3	1.2	18.3

**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

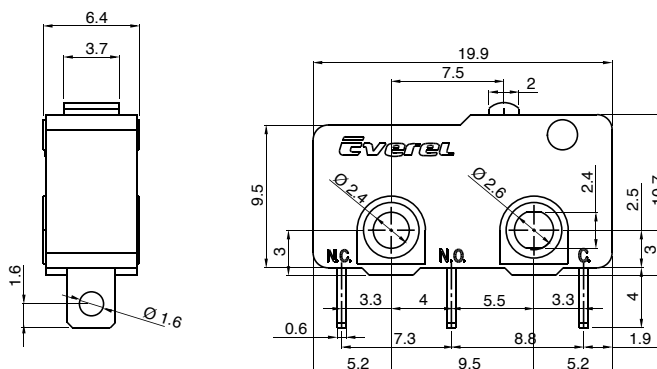


# MSS



<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

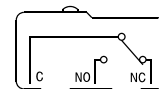
### LEVER TYPE

**00**  
No lever

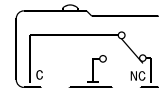
All levers available in Accessories section

### CIRCUIT CODE

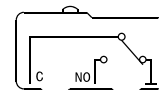
**A** SPDT

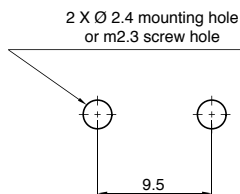


**B** SPST NC



**C** SPST NO

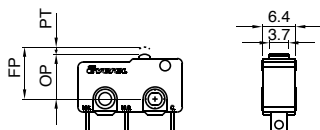




ELECTRICAL RATING		OPERATING FORCE			TERMINAL STYLE	LEVER TYPE		CIRCUIT CODE			
M	S	S							0	0	0

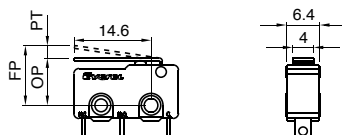
ACCESSORIES: LEVERS AVAILABLE

00



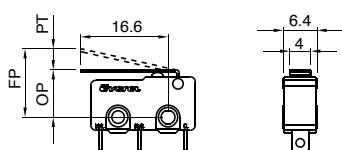
PARAMETERS								
OF Max		RF Min		PT Max	OT Min	DT Max	FP Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)	(mm)
1.47	150	0.34	35	1.0	0.4	0.2	9.1	8.5

01



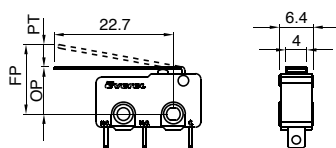
PARAMETERS								
OF Max		RF Min		PT Max	OT Min	DT Max	FP Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)	(mm)
0.49	50	0.078	8	8	3.6	1.0	11.7	8.9

02



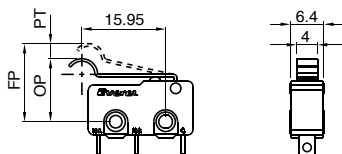
PARAMETERS								
OF Max		RF Min		PT Max	OT Min	DT Max	FP Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)	(mm)
0.44	45	0.059	6	4.0	0.6	1.0	12.0	8.9

03



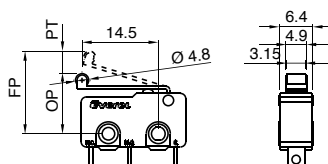
PARAMETERS								
OF Max		RF Min		PT Max	OT Min	DT Max	FP Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)	(mm)
0.34	35	0.059	6	6.1	0.8	1.8	13.5	8.9

05



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

06



PARAMETERS								
OF Max		RF Min		PT Max	OT Min	DT Max	FP Max	OP
(N)	(gf)	(N)	(gf)	(mm)	(mm)	(mm)	(mm)	(mm)
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



- Headquarter
- Production Site
- Sales Network



**Everel Group S.P.A.**

[Headquarter - Production Site]  
Via Cavour, 9  
37067 Valeggio sul Mincio (VR) - Italy  
tel. +39 045 6313711  
fax +39 045 6313730

**Dreefs GmbH**

[Production Site]  
Ernst-Dreefs-Straße 7  
96364 Marktrodach - Germany  
tel. +49 9261 9610  
fax +49 9261 961248

**Everel Romania S.r.l.**

[Production Site]  
Calea Timisorii 109  
Lipova - Arad - Romania  
tel. +40 257 563087  
fax +40 257 563086

[www.everelgroup.com](http://www.everelgroup.com)

