

SWITCH'AIR® non-stick domes

Thanks to its SWITCH'AIR® process, NICOMATIC has eradicated all risk of dome sticking thus ensuring efficient automatic placement and packaging in tubes for quick and easy positioning. Nicomatic offers one of the widest product ranges on the market.

DESCRIPTION ADVANTAGES

The SWITCH'AIR® notch helps to create a cushion of air between the domes so that they no longer stick together.

The SWITCH'AIR® non-stick domes offer :

- Stable forces and homogeneity of forces per batch number
- Excellent tactile effect even after rigorous tests (click ratio >40%)
- Very long life cycles : 1 Million and over cycles guaranteed
- Control of dimensional and mechanical characteristics
- No burrs, thus eliminating the scratching effect
- Successful and reliable automatic placement with NICOMATIC machines
- Domes in tubes save routine manual pre-separation of the domes by the operator
- The standard model is pre-nickel plated to avoid all risk of contamination
- 100% tracability per batch number

PRODUCTION CAPACITY

NICOMATIC is one of the worldwide largest manufacturers of metal domes:

- 5 Million domes per day
- On-site production and R&D

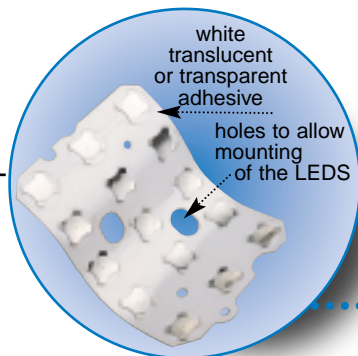
QUALIFICATION TESTS

- Life expectancy
- Overload test (static load)
- Overstroke
- Sweet spot (position of the actuator shifted from the dome centre)
- O.S.O. test (at a time : overload, sweet spot, overstroke)
- Electrical measurement

PACKAGING

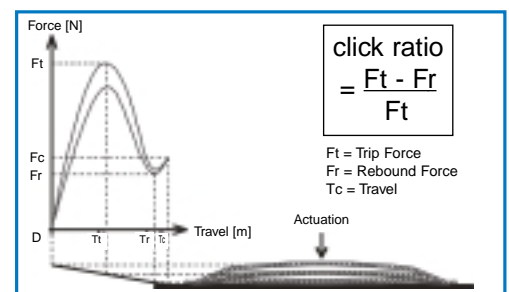
NICOMATIC SWITCH'AIR® non-stick domes can be ordered :

- In bulk quantities
- In tubes of 800 domes each*
- In sheets for custom made arrays



The domes are already pre-positioned on adhesive arrays according to customers-configurations, ready to be placed onto the circuit.

Mechanical characteristics



Typical force versus travel curve for a metal dome

* Round domes are either supplied in bulk or on arrays.



NICOMATIC HEADQUARTERS

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NICOMATIC FRANCE
is certified ISO 9001

For more information on the NICOMATIC distributor network, please visit the web site
<http://www.nicomatic.com>

SWITCH' AIR[®] non-stick domes

Four-Legged Domes

6 MM FOUR-LEGGED DOMES (SERIES 6-4-LEG)

- With and without micro-dimple

	DOME REFERENCE XXX	140	170
1	Trip force (g)	140 +/-20	170 +/-20
2	Rebound force (g)	50 +/-15	70 +/-20
3	Height (mm)	0.30 +/-0.08	0.30 +/-0.08
4	Total travel (mm)	0.20 +/-0.08	0.20 +/-0.08
5	Foot print (mm)	5.40 +/-0.08	5.40 +/-0.08
6	Diameter (mm)	6 +0 -0.20	6 +0 -0.20
7	Square size (mm)	4.80 +/-0.08	4.80 +/-0.08
8	Click ratio (%)	40 - 70 %	40 - 70 %

8.4 MM FOUR-LEGGED DOMES (SERIES 8.4-4-LEG)

- With and without dimple

	DOME REFERENCE XXX	220	280	340
1	Trip force (g)	220 +/-30	280 +/-30	340 +/-40
2	Rebound force (g)	90 +/-20	90 +/-30	110 +/-20
3	Height (mm)	0.45 +/-0.10	0.50 +/-0.10	0.55 +/-0.10
4	Total travel (mm)	0.35 +/-0.10	0.40 +/-0.10	0.45 +/-0.10
5	Foot print (mm)	8.00 +/-0.10	8.00 +/-0.10	8.00 +/-0.10
6	Diameter (mm)	8.4 +0 -0.20	8.4 +0 -0.20	8.4 +0 -0.20
7	Square size (mm)	7.00 +/-0.10	7.00 +/-0.10	7.00 +/-0.10
8	Click ratio (%)	40 - 70 %	50 - 80 %	40 - 70 %

12.2 MM FOUR-LEGGED DOMES (SERIES 12.2-4-LEG)

- With and without dimple

	DOME REFERENCE XXX	220	280	340	420 no dimple
1	Trip force (g)	220 +/-30	280 +/-30	340 +/-40	420 +/-40
2	Rebound force (g)	85 +/-20	90 +/-30	100 +/-30	120 +/-30
3	Height (mm)	0.65 +/-0.10	0.70 +/-0.10	0.70 +/-0.10	0.75 +/-0.05
4	Total travel (mm)	0.55 +/-0.10	0.60 +/-0.10	0.60 +/-0.10	0.65 +/-0.05
5	Foot print (mm)	11.70 +/-0.20	11.70 +/-0.20	11.70 +/-0.20	11.70 +/-0.20
6	Diameter (mm)	12.20 +0 -0.20	12.20 +0 -0.20	12.20 +0 -0.20	12.20 +0 -0.20
7	Square size (mm)	9.90 +/-0.10	9.90 +/-0.10	9.90 +/-0.10	9.90 +/-0.10
8	Click ratio (%)	40 - 70 %	50 - 80 %	50 - 80 %	50 - 80 %

Round Domes

4 MM AND 5 MM ROUND DOMES (SERIES N4 & N5)

- With and without micro-dimple
- No Switch'Air[®] function

DOME REFERENCE XXX	ø 4 mm		ø 5 mm			
	150	180	150	180	200	
1	Trip force (g)	150 +/-20	180 +/-20	150 +/-20	180 +/-20	200 +/-20
2	Rebound force (g)	70 +/-20	90 +/-20	70 +/-20	90 +/-20	100 +/-20
3	Height (mm)	0.21 +/-0.05	0.21 +/-0.05	0.23 +/-0.05	0.23 +/-0.05	0.23 +/-0.05
4	Total travel (mm)	0.15 +/-0.05	0.15 +/-0.05	0.17 +/-0.05	0.17 +/-0.05	0.17 +/-0.05
5	Diameter (mm)	4 +/-0.05	4 +/-0.05	5 +/-0.05	5 +/-0.05	5 +/-0.05
6	Click ratio (%)	40 - 70%	40 - 70%	40 - 70%	40 - 70%	40 - 70%

MATERIAL

- Stainless steel

PLATING

- Nickel plated standard model (-21)
- Optional one side gold plated (-31)

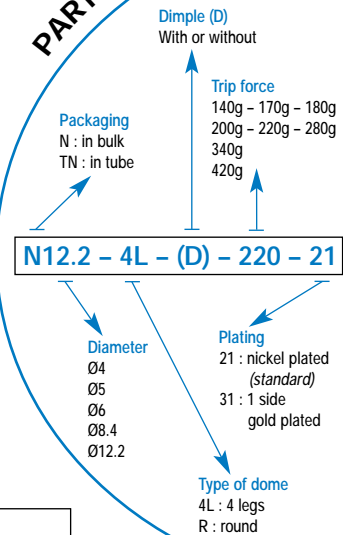
ENVIRONMENTAL

- Storage temperature from -55°C to + 125°C
- Operating temperature from -40°C to + 105°C

ELECTRICAL

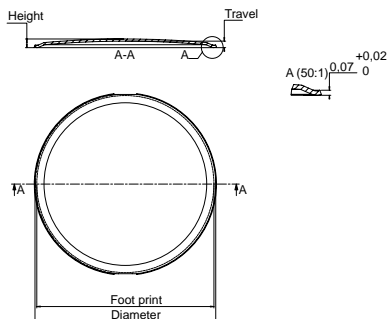
- Working voltage 0.1 to 100 V
- Working intensity 5 to 100 mA
- Contact resistance < 100 mΩ

PART NUMBERING



DOMES SPECIFICATION

Round Domes



Four-Legged Domes

