



CPF_SP_01

Single point sensor

CapaForce© technology
Capacitive + Strain sensor

CONTACT

Phone: +33 582 951 898

Email: contact@nanomade.com

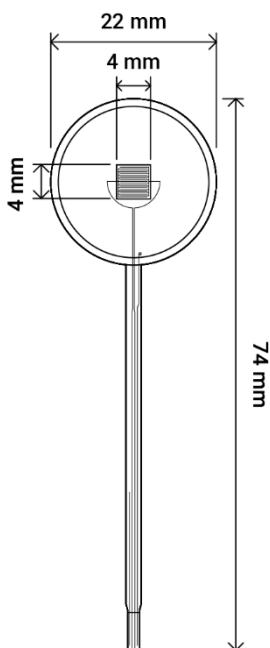
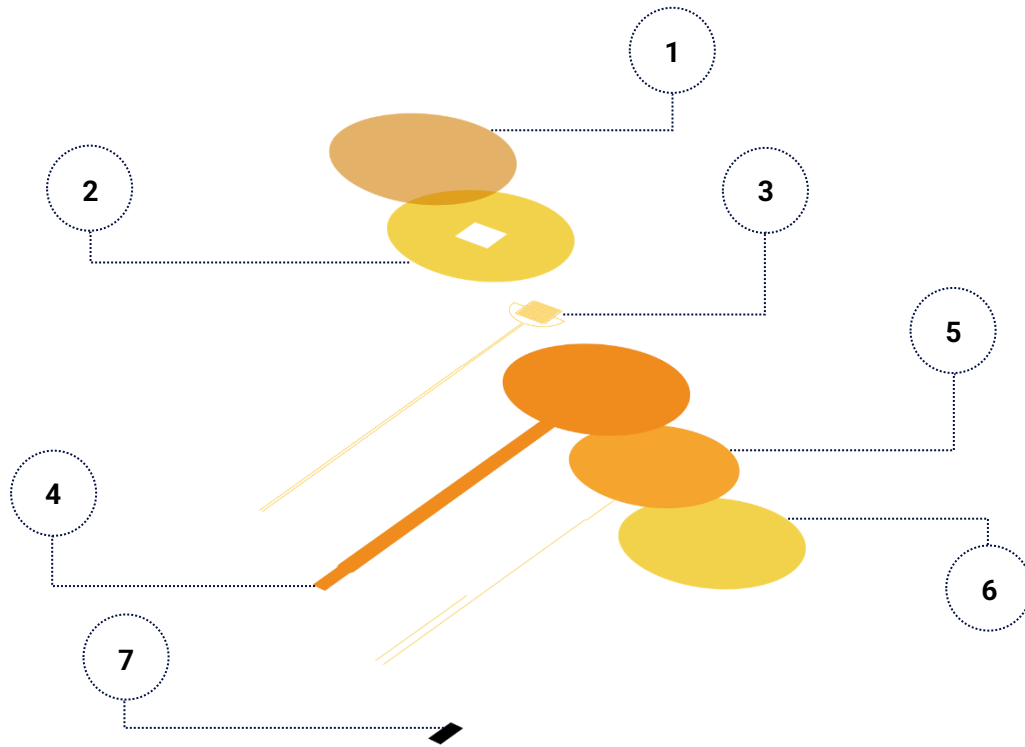
www.nanomade.com

NANOMADE LAB SAS
2 place Pierre Potier
31100 Toulouse, France

SIRET : 87888206700019 | **APE :** 7112B



Single point CapaForce© sensor



Item	Part	Description
1	Encapsulation layer	Polyimide + Adh - 126 μm
2	Cover layer	Polyimide + Adh - 100 μm
3	Strain electrode + Ink	Copper - 12 μm
4	Substrate	Polyimide - 25 μm
5	Capacitive electrode	Copper - 12 μm
6	Cover layer	Polyimide + Adh - 27.5 μm
7	Stiffener	Polyimide stiffener - 235 μm



Specifications

Typical Sensor Properties	Value	Note
Number of strain sensors	1	-
Gauge factor	120	-
Operating voltage	1.8V - 5V	-
Operating current	10 μ A - 500 μ A	-
Current consumption	0.2mA - 0.5mA	-
Nominal sensor resistance	~ 5kOhm	-
Lifetime durability	10M cycles	-

Environmental stability

Operating range	-40°C +85°C	
High temperature storage	< +3%	Change in resistance: 85°C for 96 hrs
	< -5%	Change in sensitivity: 85°C for 96 hrs
Low temperature storage	< -10%	Change in resistance: -80°C for 96 hrs
	< -3%	Change in sensitivity: -80°C for 96 hrs
High humidity storage	< +5%	Change in resistance: 85°C/85% RH for 500 hrs
Temperature cycling	< 8%	Change in resistance after 20 cycles +80°C/-40°C