

Nano
UNIMAR

***THE ULTRA COMPACT GAUGE
FOR MACHINE TOOLS***



MARPOSS

Description of the system

Compact precision

Increasingly compact solutions for ever smaller grinding machines and parts: the answer is NanoUnimar.

Injectors, small gears, components from the mechanical engineering-automotive industry, aerospace, hydraulic/pneumatic parts, tools for the biomedical industry, ... , these are just some examples of the types of parts that can be measured using NanoUnimar measuring heads.

It is based on the specifications of the application and the type of part that a type of gauge with different features (retraction, damping) can be selected. Pre-travel and measuring force are parameters that can be suitably adjusted directly on the gauge body.

Why choose it?

NanoUnimar measuring heads are the ideal solution for process control on grinding machines for micro-components, where the spaces in the machine are very limited.

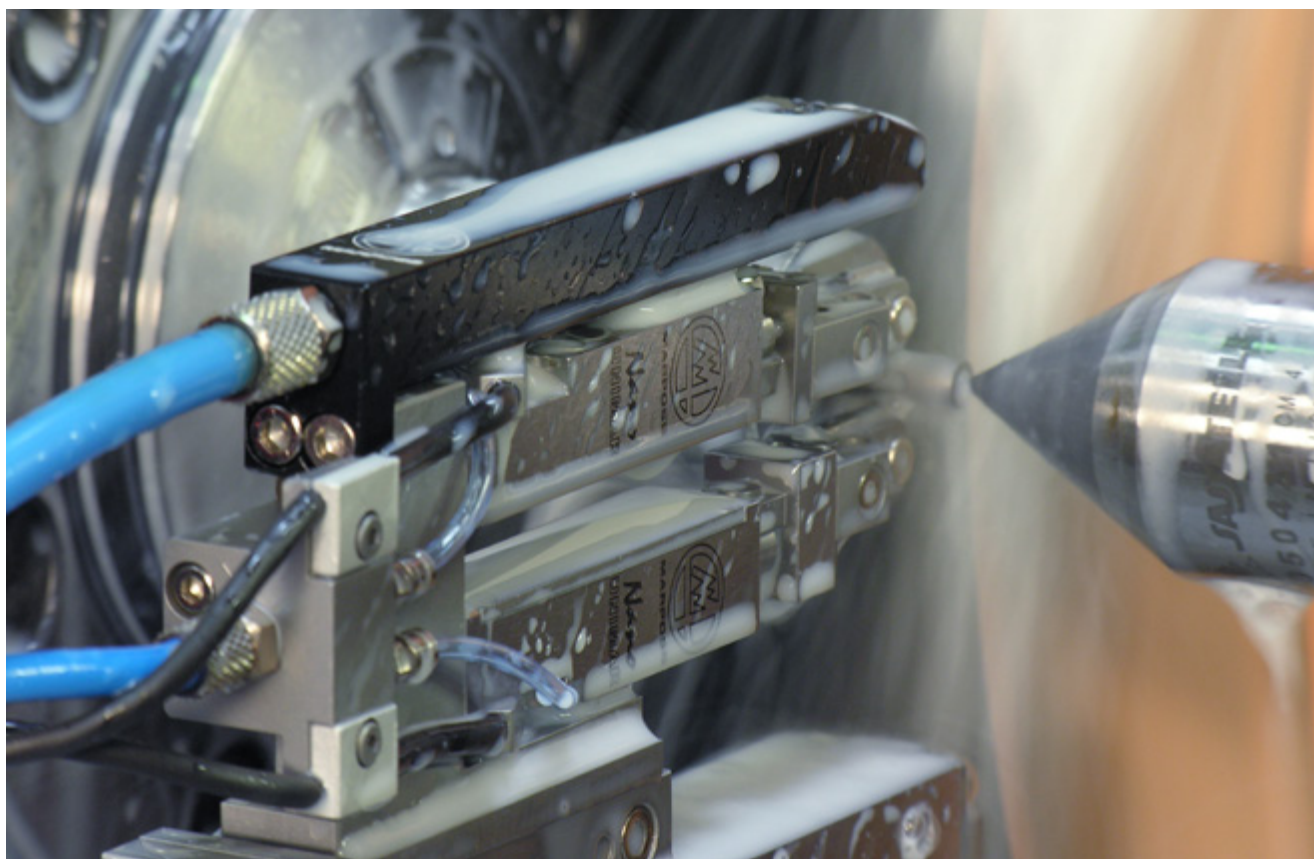
Technological advantages

The ideal partner in extremely high precision grinding systems, NanoUnimar is compact, with excellent measuring performance such as repeatability, linearity and thermal stability

The heads can be connected to all Marposs electronic gauging amplifiers.

Advantages

- Excellent gauging performance
- Compact dimensions
- Minimum space taken up by fingers and adjustment guides
- Easy installation and use
- Mechanical retooling accessible from above
- For checking external, internal, smooth or interrupted surfaces

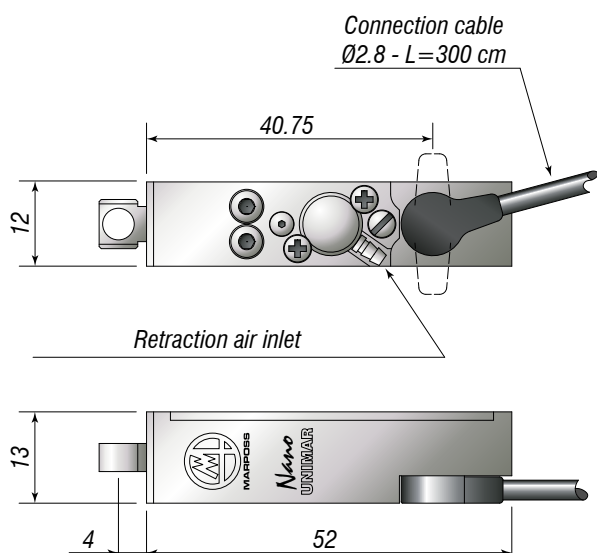


NanoUnimar measuring cell

The NanoUnimar measuring cell is available in various models for checking smooth and interrupted surfaces, and is equipped with a pneumatic finger retraction system.

Options:

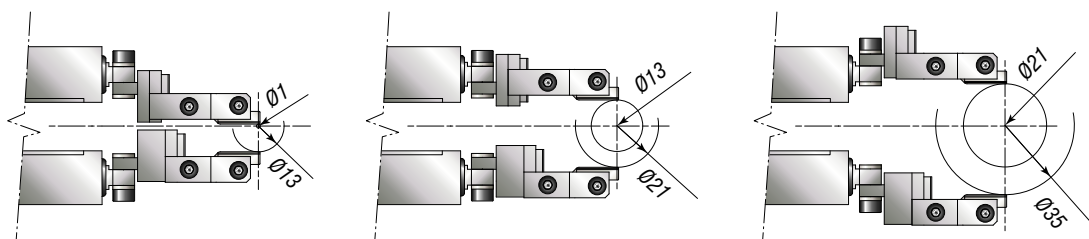
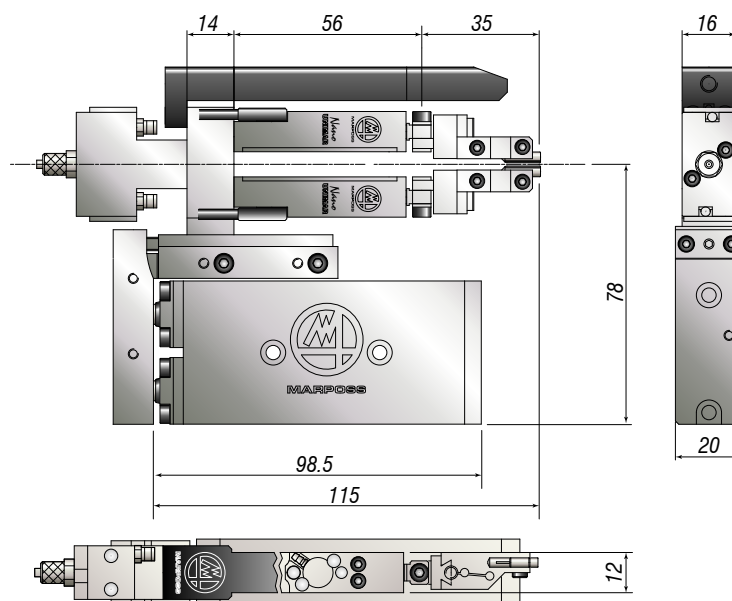
- coolant shower
- small dedicated introduction slide
- dedicated fingers and contacts



MEASUREMENT RANGE <i>without mechanical retooling</i>	in-process	-100/+300 μm
REPEATABILITY		$\leq 0.1 \mu\text{m}$
THERMAL DRIFT <i>with steel master</i>		$< 0.1 \mu\text{m}/^\circ\text{C}$
PRE-TRAVEL		100 μm
MEASUREMENT FORCE		0.7 N $\pm 10\%$
RETRACTION PRESSURE		4-6 bar
DEGREE OF PROTECTION <i>(IEC 60529 standards)</i>		IP67
INTRODUCTION SLIDE	travel hydraulic pressure pneumatic pressure	50 mm 12-30 bar ≤ 6 bar

Data refers to the single NanoUnimar transducer

Dimensions and application fields



Coding plan

BASIC CODE 3444960 X Y Z
(see below)

Head Model [X]	Options [Y]										Model	Special Option [Z]
	0	1	2	3	4	5	6	7	8	9		
N	3	N21				N11		N311			0	Standard

For a full list of address locations, please consult the Marposs official website

D6102500G0 - Edition 12/2015 - Specifications are subject to modifications
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