



## Z-Nano IR Tool Setting Probe



### Tool Measurement



Infrared Transmission



Linear Working Principle



Wear-Free Measuring Mechanism



Tool Breakage Detection



Tool Length Measurement



Axes Compensation



Tool Setting Probe **Z-Nano IR**

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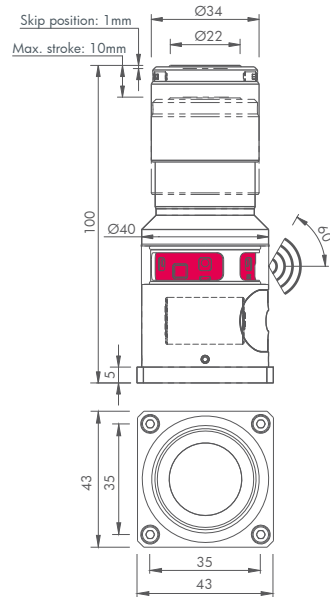
## Z-Nano IR | Tool Setting Probe | Tactile tool setting system with infrared transmission

### Extremely precise infrared probe - Flexible tool setting probe with linear working principle for monitoring of smallest tools

- Tool breakage detection
- Tool length measurement
- Thermal compensation of the machine tool
- Solution for machines with pallet changers

#### Your benefit:

- Extremely fast tool breakage detection
- No subsequent damage due to tool breakage
- Fast ROI
- No-wear optoelectronic measuring mechanism
- Compact and robust design



#### Linear working principle

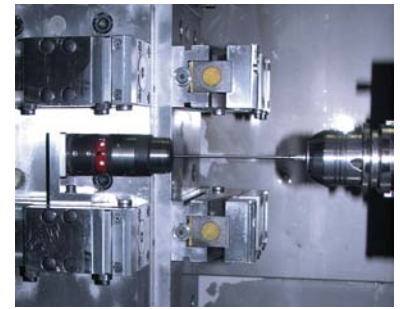
Due to the linear working principle the probe provides a minimal and torque-free measuring force. Even the most sensitive and smallest tool diameters can be measured extremely precise.

#### Technical data

Protection class	IP68
Approach direction	-Z
Meas. force vertical mounting*	2,2 N   with chip protection: 2,4 N
Meas. force horizontal mounting*	3,0 N   with chip protection: 3,2 N
Max. stroke	10 mm
Trigger point	1 mm
Repeatability	0,5 µm 2σ
Max. probing speed	2 m/min
Min. tool diameter**	> 0,1 mm, with chip protection: 0,2 mm
Signal transmission   Range	Infrared   ± 60 in Z, 360° in X/Y
Mass	290 g
Battery (2 pieces)	Saft Lithium LS14250 (½AA, 3,6V) 1200 mAh
Storage/Operating temperature	-20 °C ... -70 °C   +10 °C ... +50 °C

\* Measuring force with chip protection & additional spring: see data sheet

\*\* Depending on tool geometry and material, probing force must not result in damage of tool.



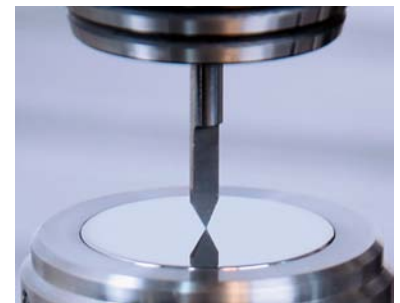
Fast tool breakage detection on horizontal machining center with pallet changer



Z-Nano IR and TC54-10 in DUO-Mode



Many accessories available: chip protection, cleaning nozzle, mounting system, etc.



Exchangeable measuring surface

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