



TC53-20 3D Tool Setting Probe



Tool Measurement



Infrared Transmission



shark360 Technology



Wear-Free Measuring Mechanism



Modular System



Tool Breakage Detection



Tool Length Measurement



Tool Radius Measurement



Axes Compensation

3D Tool Setting Probe TC53-20

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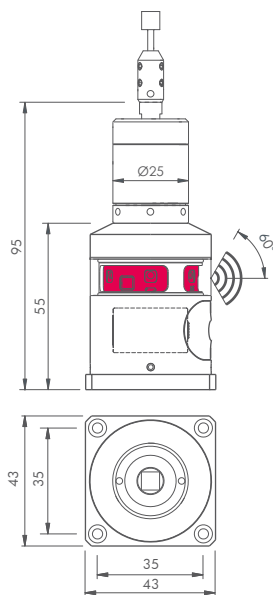
TC53-20 | 3D Tool Setting Probe | Tactile tool setting system with infrared transmission

Extremely precise & modular IR probe – customizable system with revolutionary shark360 measuring mechanism

- Tool length measurement
- Tool radius measurement
- Tool breakage detection
- Thermal compensation of the machine tool

Your benefit:

- Customized adaptations can be easily developed
- Superior precision due to patented **shark360** measuring mechanism
- No subsequent damage due to tool breakage
- Fast ROI
- No-wear optoelectronic measuring mechanism
- Use of two measuring systems with one IR receiver
- Compact and robust design



Example: Measurement of turning tool



Tool radius measurement with special probe configuration

DUO-Mode

Sequential use of two measuring systems with one infrared receiver.



Technical data

Protection class	IP68
Approach direction	$\pm X, \pm Y, -Z$
Measuring force in XY Z	1,3 N 5,9 N
Max. deflection XY Z	$\pm 15^\circ$ 5 mm
Repeatability	0,4 μm 2σ
Max. probing speed	2 m/min
Min. tool diameter	1 mm*
Signal transmission Range	Infrared $\pm 60^\circ$ in Z, 360° in X/Y
Mass	325 g (Without accessories, e.g. extension, angle)
Battery (2 pieces)	Saft Lithium LS14250, (1½ AA, 3,6V) 1200 mAh
Storage/Operating temperature	-20 °C ... -70 °C +5 °C ... +50 °C

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



Various accessories available



shark360 measuring mechanism

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