

Infrared probing system IRP40.50

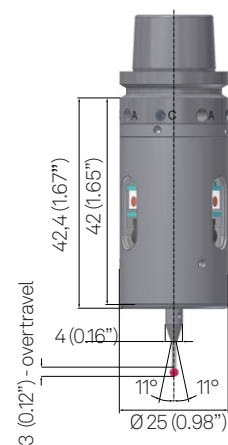
The smallest infrared probe in the world

The ultrasmall infrared probe IRP40.50, with a diameter of only 25 millimeters and a length of 42.4 millimeters, can find a place in any small machining center and leaves sufficient space so that measurement is also possible on the Z axis without a danger of collision. The IRP40.50 is highly precise and is also suitable for small and delicate workpieces with a low probing force of 0.7 N (X/Y). It goes without saying that the IRP40.50 also has the proven HDR infrared transmission.

- The smallest infrared probe in the world
- Reliable bidirectional HDR infrared transmission
- Energy-efficient and economical

Technical data	
Sensing Directions	±X; ±Y; -Z
Maximum Stylus Overtravel	XY = ±12,5°; Z = -5 mm
Trigger Force with 16 mm Stylus	Z = 8 N / XY = 2 N
Recommended Probing Feedrate	Ø 0,5 mm (0.02")
Power Supply	1x battery (3.6 V / ½AA) Standby: 18 month
Battery lifetime	Approx. 750 g
Material	Operation: 10° – 50°C Storage : 5° – 70°C
Weight without shank	1µm (max. 2 Sigma) and 100 mm/min
Temperature Range	±2,5 µm
Unidirectional Repeatability	IP68: EN60529
Sealing	IRR91.42 IRR91.50

IRP40.50



Workpiece measurement

Setting zero point

Before machining workpieces, the zero position must be set on the machine. As a rule the following requirements exist: quickly finding the center of a bore or pin, determining a workpiece corner or workpiece edge / determining a bolt-hole circle center.

Adjustment of workpieces

Angular positions of workpieces can be exactly determined and automatically compensated. As a result the time-consuming parallel adjustment of work-pieces to the axes is no longer necessary and precision is increased.

Workpiece measurement

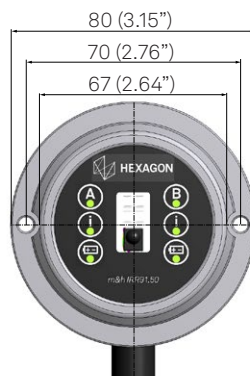
State-of-the-art controls and software packages are capable of measuring workpiece geometries such as edges, bores, bosses, grooves, lands, angles, corners and arcs. The workpiece quality evaluations are recorded and allow for immediate rework, even while still clamped.

Infrared receiver

The bidirectional infrared receiver IRR91.50 is able to simultaneously communicate with two probing systems on the same machine. All receivers are extremely robust and waterproof and can communicate with m&h infrared probes and infrared tool setters

IRR91.50

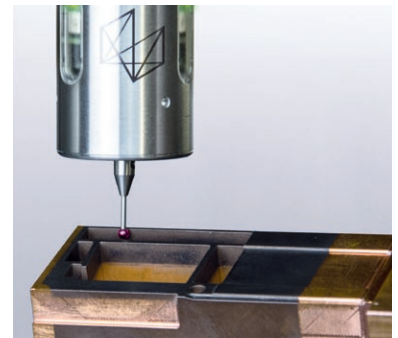
- Dual Probe and bidirectional HDR and HDR+ technology
- Available with radial and axial cable outlets



IRR91.50 - with HDR technology for reliable transmission



The smallest infrared probe in the world



Always the best results, even in smallest machines

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Manufacturing Intelligence division provides solutions that utilise data from design and engineering, production and metrology to make manufacturing smarter. For more information, visit [hexagonmi.com](https://www.hexagonmi.com).

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