

Compact laser module with integrated transmitter and receiver. Fast, precise and automatic, contact-free tool measurement and breakage detection on turning tool.

The times for tool measurement can be reduced by up to 90%. The automatic tool breakage control ensures reliable manufacturing in fully automatic operation.

The minimum tool length depends on the spindle, spray system, other attachments and the installation location.

Properties:

- Measurement of tool lengths and diameters on turning tool
- Contact-free measurement of tools

Scope of Delivery:

- Sensor and attachment parts, software option
- Depending on the type of machine, a special mounting plate might be required

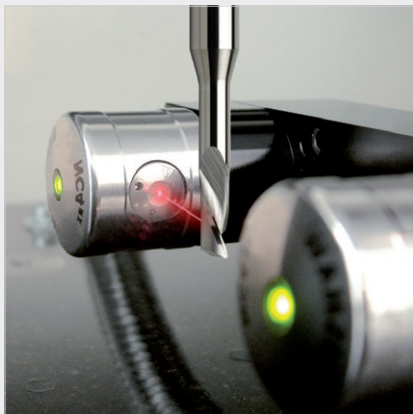
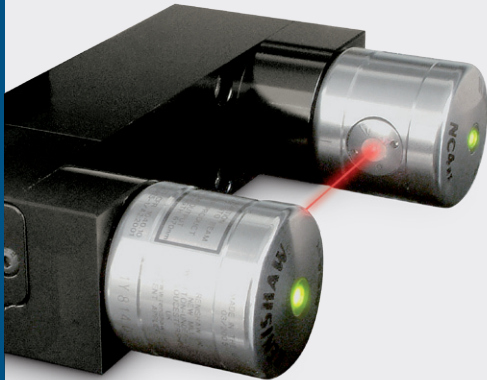
Kompatibilität:

- Starting from software version V8.xx

Note:

With this sensor, relative measurements of the flute (diameter and length) can be made. To perform absolute measurements, a correction value has to be determined for each type of tool (calibration of tool). A tool length sensor is necessary for automatic detection of the correction value.

In application: monitoring of tool damage.



Advantages:

- Measurement of the effective tool diameter
- contact-free, and therefore no measuring forces on sensitive tools
- Integrated in the software
- Very exact
- Fast measurement

Application:

- Measurement of tool length and diameter
- Monitoring of tool wear and tool breakage
- Increase in machine reliability by means of tool control in the machining process

Technical Data	Renishaw NC4-F115
Measurement precision	< +/- 10 µm (according to milling cutter calibration)
Minimum tool diameter	type 0.2 mm (measurement), 0.1 mm (breakage detection)
Maximum tool diameter	< 20 mm
Type of protection	Protection in accordance with IPX 8 (air purge and mechanical shutter)
Laser type	Visible red laser light (670 nm), < 1 mW

Order Description	Article Number
Tool control system Renishaw NC4-F115	0A01116A
Tool control system Renishaw NC4-F115 for M10	0A01116B
Tool control system Renishaw NC4-F115 for M7, ML	0A01116C