



1 Line scan camera with interface for USB operation

2 Line scan camera with live visualization of magnetic field values

HALLINONE[®] MAGNETIC LINE SCAN CAMERA

Applications

With this magnetic line scan camera it is possible to measure all three components of the magnetic field along a straight line. The distance between the single 3D magnetic field sensors is 2.5 mm. To be able to measure gradients of the magnetic field along the line, there is a second line of 3D sensors at a distance of 2.5 mm beneath the first line. Each of the two lines consists of 32 sensors. With global shutter all sensors of the line can measure synchronously. The main field of application is quality control during or after magnet manufacturing. Other application areas include all kinds of visualizations of static or alternating magnetic fields (e.g. in electrical motors, inside or outside of coils). Some of these applications are firstly enabled by the high measurement speed. Another field of application is non-destructive material testing. Magnetic active materials and

even conductive materials can be tested by applying an external magnetic field and measuring and evaluating the resulting field.

Features

- Measurement resolution 10 μT
- Integrated temperature sensor
- Fully calibrated offsets
- Ready-to-use with USB interface
- Labview software for visualization

Developments in the future

Further development is to increase the number of lines to 16 to be able to measure the magnetic field over an area of 4 cm x 4 cm (even bigger areas are possible). Live inspection with estimated 100 frames per second should be possible in the near future.

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