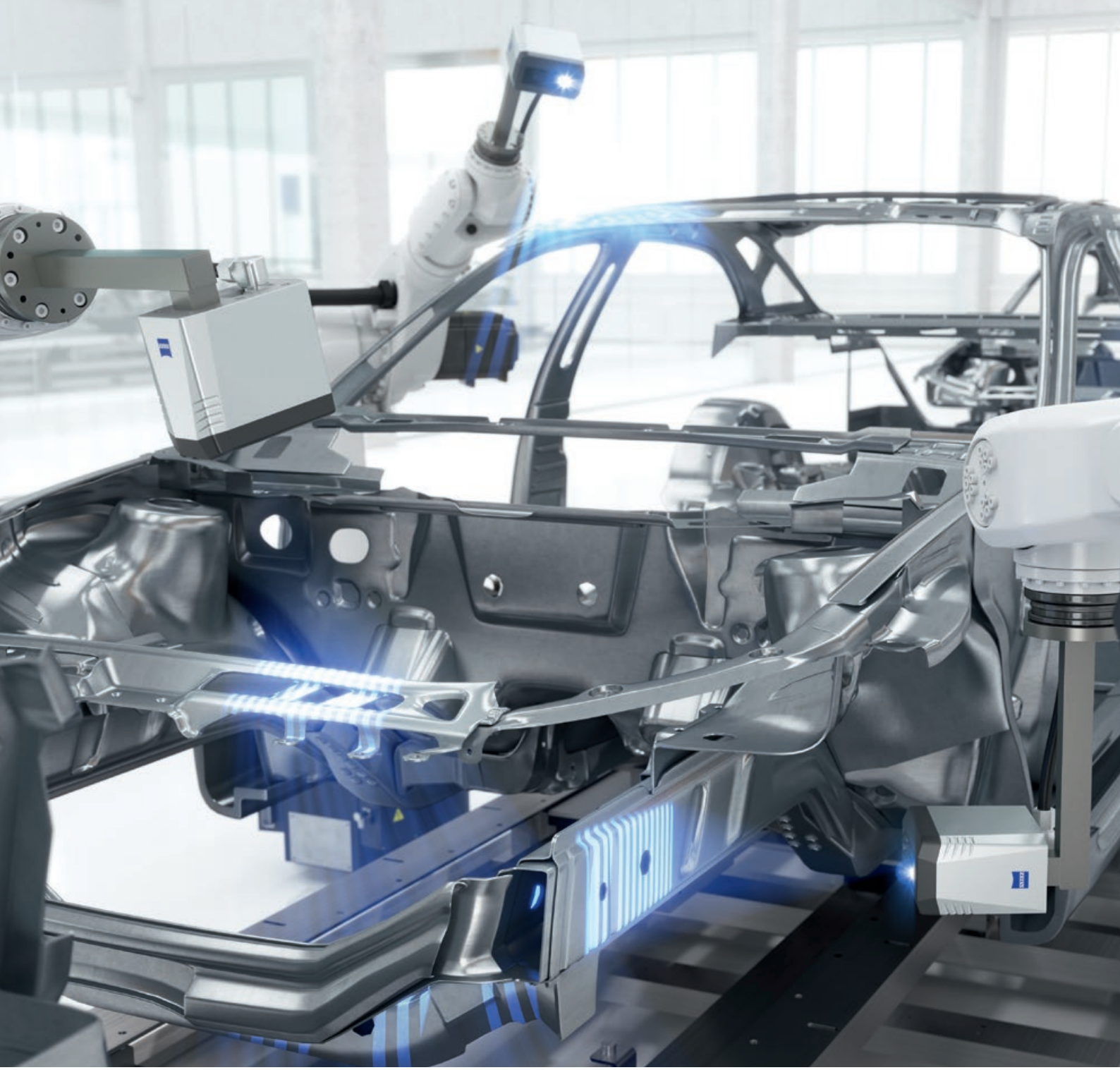


# **ZEISS AIMax** cloud

Product Information

# Capture 3D point clouds in-line using the ZEISS AIMax cloud

## ZEISS AIMax cloud

The ZEISS AIMax cloud optical 3D sensor for generating point clouds is the new benchmark in robot-based 3D in-line technology for metalworking and car body construction. This sensor enables the high-precision analysis of complex features in a fraction of a second – ensuring 100 % measurement in short cycle times.

## ZEISS AIMax cloud benefits

- Dense point clouds created quickly using structured illumination
- DLP® technology optimized for in-line use
- Intuitive and fast setup of feature extraction
- Greater robustness as compared to standard image processing through feature extraction in the point cloud
- Measurability and testability of even smallest features thanks to high 3D resolution
- Highly compact sensor design for optimal accessibility
- Problem-free measurements on sheet metal and paint
- Simultaneous analysis of multiple features in one sensor position

## ZEISS AIMax cloud applications

- Inspection of assembly and welding processes
- In-line measuring technology for car body construction, metalworking and structural parts
- Attribute feature recognition for data matrix codes, availability checks and type differentiation
- Robot-based coordinate measuring technology
- Gap-and-flush measurement in body shell work and final assembly
- Measurements of features previously difficult to analyze (e. g. nut behind metal, rivets)
- Measurements of characteristic design lines

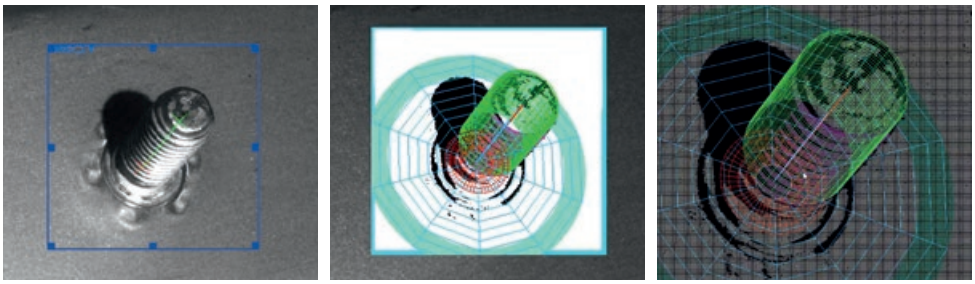
*The robot-based sensor can be used for 3D metrology in-line and at-line and in metalwork and car body construction.*

*The feature to be measured is selected in the 2D image.*

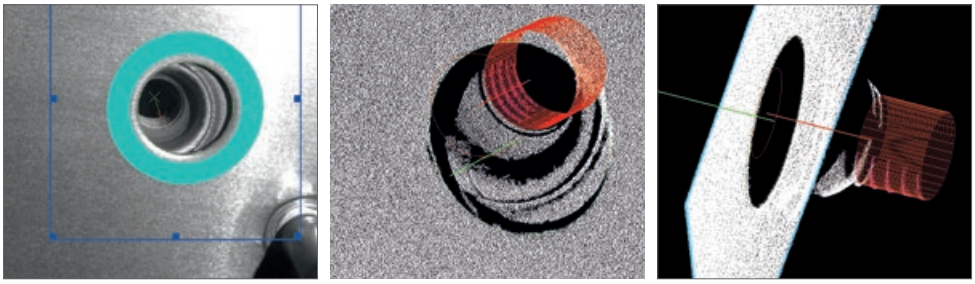
*An algorithm generates the 3D point cloud.*

*The measuring result is visualized immediately.*

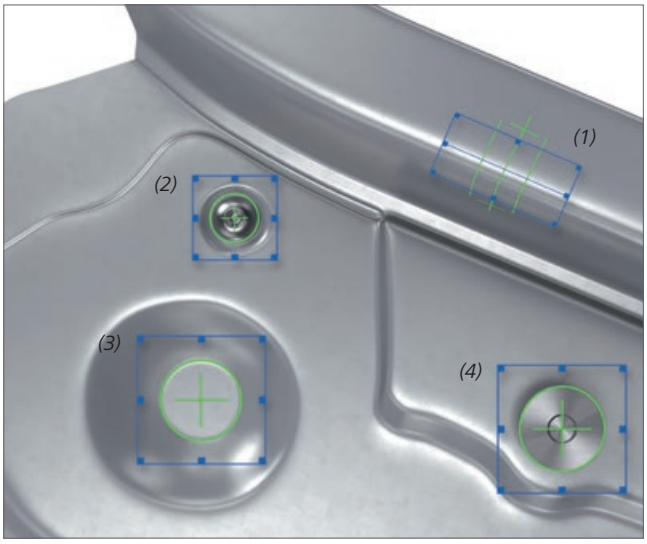
*Example: bolt*



*Example: a nut under sheet metal*



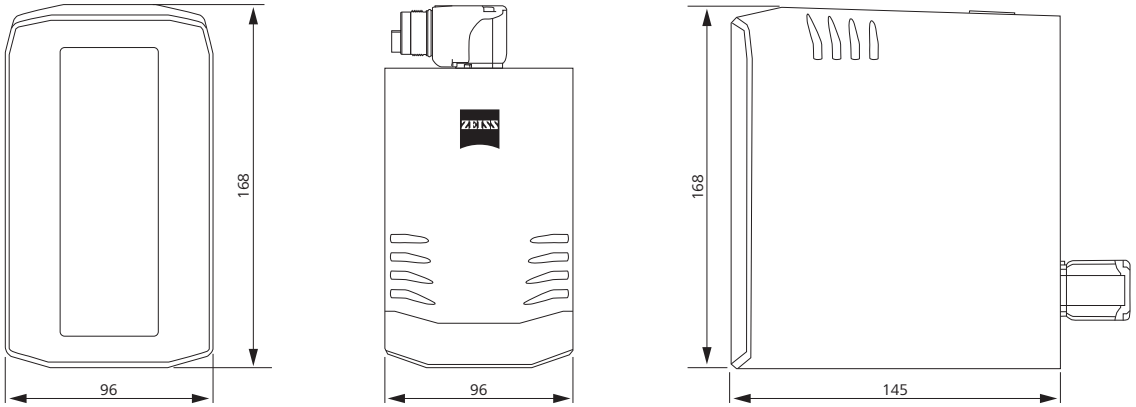
*Examples: features*
*(1) bending edge*
*(2) rivet*
*(3) surface point*
*(4) T pin*




*One benefit of dense point clouds is that multiple features, such as bending edges, rivets, surfaces points and T pins, can be measured with just a single capture.*

**ZEISS AIMax** cloud **technical data**

| | |
|---|---|
| Camera | Digital (GigE) camera technology (monochrome) |
| Camera resolution | 2048 pixels x 2048 pixels |
| Illumination | DLP® projector in the range of 450 nm to 620 nm |
| Measuring distance | 165 mm |
| Measuring range | 80 mm x 80 mm x 40 mm |
| Dimensions | 96 mm x 168 mm 145 mm |
| Weight | 3 kg |
| Measuring time | < 0.5 seconds / measuring position for typical features |

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