O2D500

Contour and blob analysis in one device –
the new Dualis

Product presentation

The new Dualis O2D500

Contours and blobs, easily detected!

With the new Dualis, quality control is now a child's play in almost every case. This is because the 2D vision sensor checks every conceivable characteristic of any object placed in front of it:

Whether too much adhesive or missing thread milled holes, correctly positioned punched holes or incorrectly positioned retaining clips, nothing escapes the watchful eye of this multi-talent. Fun fact: It could even be Dualis making sure you have a sufficient amount of sesame seeds on your Sunday roll...

And as if all this were not yet sufficiently convenient, we also provide you with the award-winning ifm Vision Assistant for setting up Dualis. We guarantee: once you have discovered the possibilities Dualis offers, you will never run out of ideas for its use.

Would you like to learn more? Then why not take a look at the relevant product information section at **ifm.com/gb/dualis** right away?
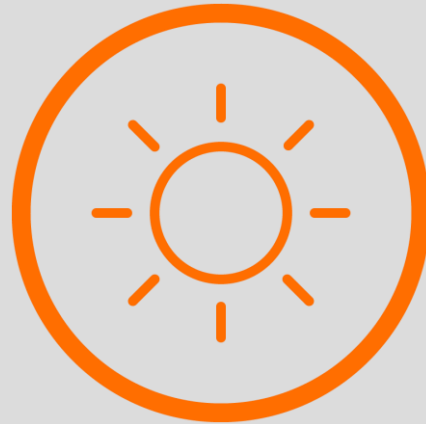
Product advantages
Why O2D500?

Real-time maintenance and fast replacement

Image sharpness, brightness and regions of interest (ROIs) monitoring as well as backup with the ifm memory stick

Adaptation to different lighting conditions

Creation of several images with different exposure times and polarisation filters

Intuitive operation with the "ifm Vision Assistant"

Intuitive menu navigation and fast parameterisation with application wizards

High integrability also in the automotive industry

Ethernet and ProfiNet interfaces as well as A- and L-coded connectors for flexible use

Position detection of a punch-out

Checking the correct punch-out position

- The contour of the punched hole in combination with the outer edges (reference point) is detected

- The punching process must not only have been performed, it must also have been done in the correct position
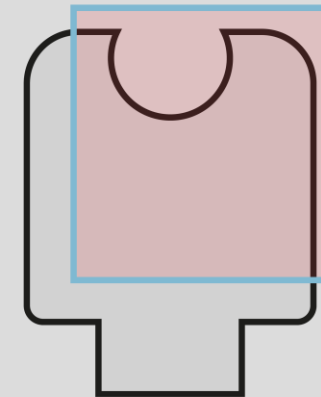
Advantages

- Detection of the outer contour to determine the position and contour of the punched hole

- Prevention of production waste due to incorrect punching position
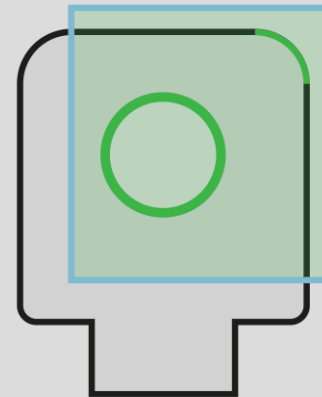
Correct part   Incorrect part
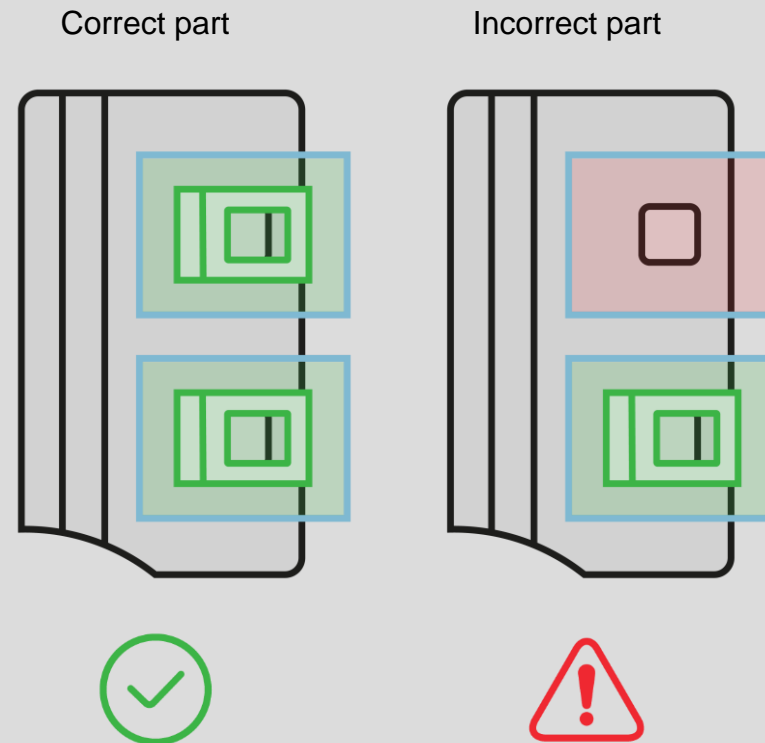
Shape detection

Orientation

Object position

Detecting clips on a panel

Identifying the presence of mounted clips on a panel (part / no part)

- Simultaneous contour detection of several clips on a panel

- Missing or faulty clips are reliably detected

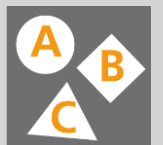- Incorrect parts are sorted out

Advantages

- Higher reliability compared to laser sensors for clip detection

- Simultaneous monitoring and localisation of several clips for simple and fast fault analysis

Correct part

Incorrect part

Shape detection

Number of objects

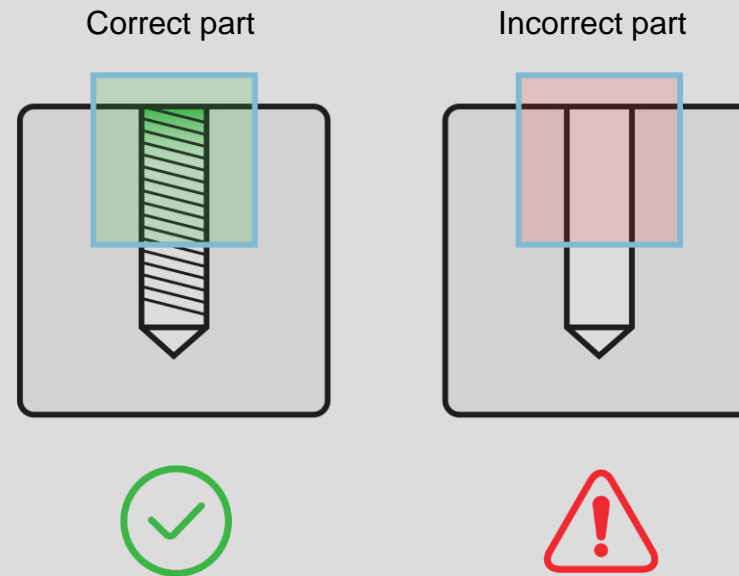Sorting tasks

Application overview
Presence verification (part / no part)

Checking the presence and number of threads

- Detecting the number of threads in metal components

- Counting the pixels of the thread reflection

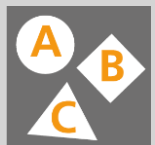- Detecting inconsistencies on the thread surface and sorting out unmachined components

Advantages

- Detecting and sorting out incorrect parts during operation

- Preventing faults, such as oil leakage, to minimise machine failures

Correct part

Incorrect part

Object area

Number of objects

Sorting tasks

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Surface area detection and monitoring of completeness
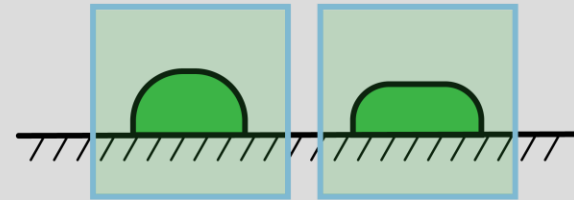
Checking the presence and amount of mastic

- The number of areas where mastic has been applied is checked
- Despite different shapes, the absence of mastic is detected
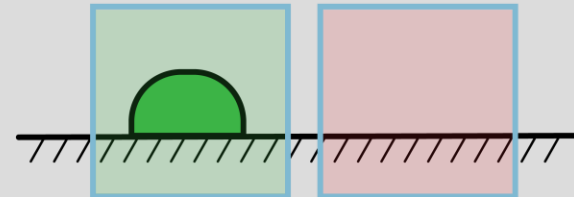- The amount of mastic can be determined based on the surface area

Advantages

- Efficient material usage thanks to quantity checks
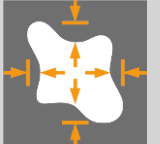- Preventing incorrectly glued parts

Mastic present

Mastic missing

Object area

Number of objects

Object width / height

Roundness / rectangularity

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Good to know

2 in 1: Object detection and inspection using one single device

Minimising the installation complexity and stock levels
Contour and blob analysis in one device for flexible use

Improving the product quality
Ensuring the correct and complete processing

Reducing the reject rate permanently
Early detection of sources of failure and optimisation

Minimising plant downtime
Real-time maintenance and fast sensor exchange thanks to intuitive software and the ifm memory stick

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