



Industrial imaging

# The new Dualis: Inspect, measure and control objects



Vision sensors

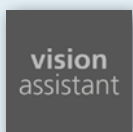


**2D vision sensor ensures  
process and object quality**

**Surface and contour detection  
for targeted robot arm  
navigation**

**User-friendly software  
simplifies set-up**

**Reliable functioning in  
changing light conditions**




## Versatile and indispensable

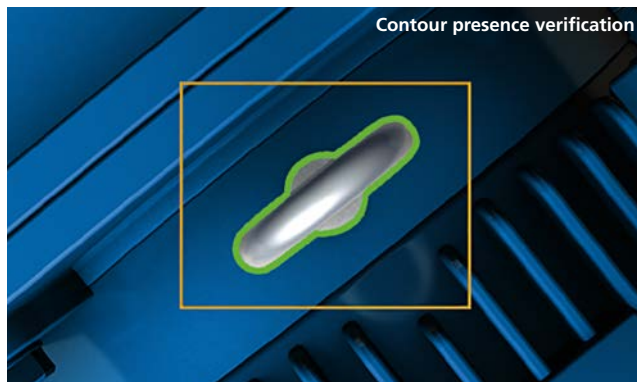
Missing retaining clips, too much adhesive, a toothed wheel that is too small: The new Dualis detects objects and uses the surfaces, contours, dimensions and distances to each other to check whether the quality of the object or the process step is correct. The Dualis also reliably assumes the precise control of robot arms to an object - this makes it a versatile sensor that is indispensable in processes with low error tolerances.

The new Dualis is set up with the user-friendly ifm Vision Assistant software. Four wizards support the user in setting up the most common applications: Surface analysis, contour detection, object dimensioning and robot navigation can be completed – individually or in combination – with just a few clicks.



Type	Angle of view	Interface	Illumination	
			Infrared	RGB-W
			Order no.	Order no.
	16°, standard lens	EtherNet/IP	<b>O2D520</b>	<b>O2D500</b>
	30°, wide-angle lens	EtherNet/IP	<b>O2D522</b>	<b>O2D502</b>
	10°, telephoto lens	EtherNet/IP	<b>O2D524</b>	<b>O2D504</b>
	16°, standard lens	PROFINET, L-coded	<b>O2D530</b>	<b>O2D510</b>
	30°, wide-angle lens	PROFINET, L-coded	<b>O2D532</b>	<b>O2D512</b>
	10°, telephoto lens	PROFINET, L-coded	<b>O2D534</b>	<b>O2D514</b>
	16°, standard lens	PROFINET, A-coded	<b>O2D550</b>	<b>O2D540</b>
	30°, wide-angle lens	PROFINET, A-coded	<b>O2D552</b>	<b>O2D542</b>
	10°, telephoto lens	PROFINET, A-coded	<b>O2D554</b>	<b>O2D544</b>

### Simply solve your application step by step:



A contour presence verification wizard supports you in solving simple contour presence checks. Even inexperienced users can set up the application within 2 minutes.

#### Robot sensor calibration

The Robot sensor calibration wizard enables precise control of an object by a robot arm. By means of marker calibration, the coordinate systems of the sensor and the robot are precisely adapted to each other.

#### Measurement

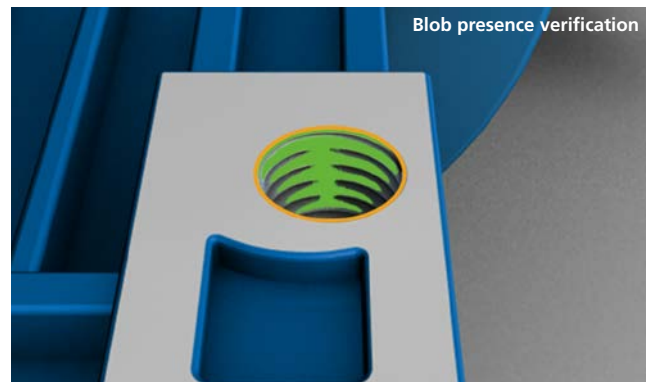
The wizard for measurement allows determination of contours and surfaces of objects. These can be set in relation to each other and their distance determined as absolute values.

#### User-defined mode

With the user-defined mode more complex applications with combinations of all functions can be solved.

#### Simple connection to robots

The ProfiNet version with an L-coded connector for power supply facilitates direct connection to industrial robots.



Using the blob presence verification wizard, you can easily set up an application to analyse blobs. Blobs are contiguous pixels that form an area. These areas can be checked for their size, shape or other properties.

#### Many options for perfect quality control

The Dualis is available with infrared or RGB-W illumination. The latter makes it possible to distinguish objects by their colour. Highly reflective objects can also be detected easily thanks to the polarisation filter.

In strongly fluctuating light conditions, it takes up to 5 images with different exposure times and then selects the optimally illuminated image for quality control.

Thanks to the daylight filter, the Dualis is extremely resistant to extraneous light.

#### Fast replacement thanks to memory stick

The Dualis is equipped with an ifm memory stick on which the parameters and settings are stored. In the event of a device replacement, the stick can be used to easily transfer the data to the new Dualis.