Фотоэлектрические датчики со сквозным лучом

Технические характеристики

Simple Vision sensor for presence detection

Correct printing of the best before date or batch number, presence of labels and accessory parts on packaging: All these are aspects which are relevant in quality checking during packaging processes. Here, simple optical sensors often reach their limits. Large camera systems, however, are mostly complex and require expert knowledge to operate.
With the new IVS 108 Simple Vision sensor, detection tasks encountered in packaging processes can be solved using an easy-to-operate, image-processing sensor.

The new IVS 108 Simple Vision sensor

Extremely easy to use – perfect for presence detection

The new IVS 108 is an innovative Vision sensor that can detect the presence or absence of objects in a simple way. It offers outstanding performance for a wide variety of detection tasks. The IVS 108 is intuitive, can be adjusted quickly and is as easy to use as an optical sensor.

Advantages for you

- For all applications that require low-cost object presence/absence detection and in cases where sole use of the switching signal of an optical standard sensor is no longer enough
- Time and cost saving thanks to a simple teach process, including auto-focus adjustment
- User-friendly graphical user interface via web browser for easy configuration and real-time statistics
- A single device can save up to 32 different tasks and jobs
- Irrespective of the object, the sensor always delivers a consistent response time, even after a job change. This simplifies system integration, the time required for setting up an application is reduced.
- Integrated, polarized light to avoid unwanted reflections on glossy surfaces and to ensure reliable operation
- Flexible installation with matching mounting brackets

Highlights

Outstanding performance for presence control

The new IVS 108 is an outstanding Vision sensor for all applications where the presence or absence of objects is to be checked, e.g. caps, labels or prints on bottles or flacons in filling systems. It can also be used to check whether objects are aligned correctly, regardless of their shape, material, color or dimensions.

Fast sensor set-up

The IVS 108 can be taught intuitively and quickly using a simple teach process and requires neither programming by specialists nor time-consuming configuration.

Place the GOOD object in front of the Aiming System and press the teach button

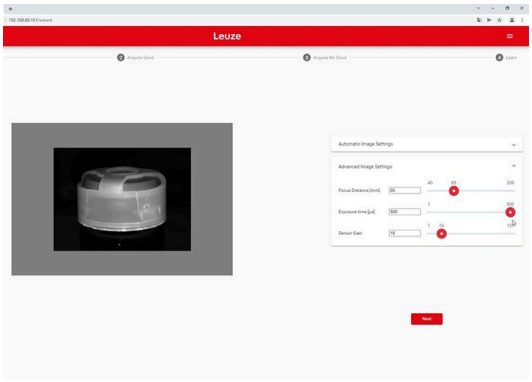
Place the NO GOOD object in front of the Aiming System and press the teach button a second time

Ready!

Option 1: Set-up using teach button

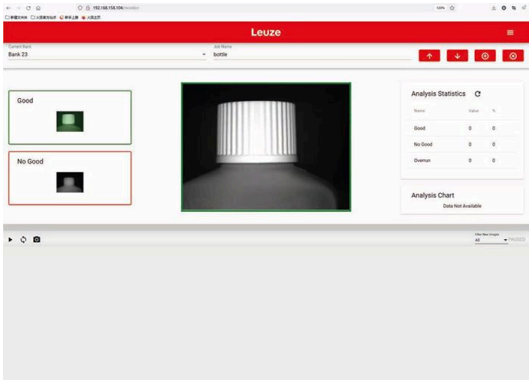
Step 1: Place the "GOOD" object in front of the sensor and press the teach button

Step 2: Place the "NO GOOD" object in front of the sensor and press the teach button.



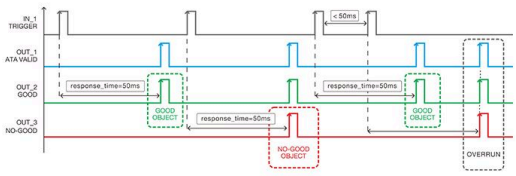
Option 2: Set-up using the web-based, graphical user interface. The user is visually guided through a set-up menu with four input masks

Easy control using web-based GUI



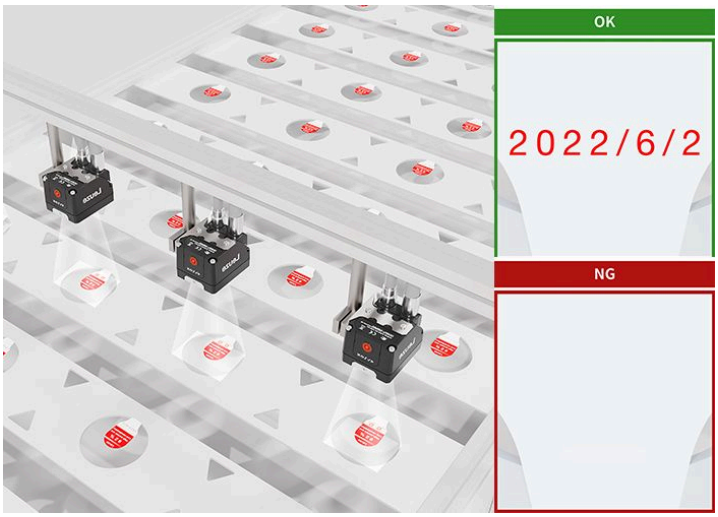
The device can also be configured and remotely controlled via Ethernet using a user-friendly, web-based graphical user interface. This user interface provides image processing functions and real-time statistics for the measurement results of the production line. It requires neither programming by specialists nor adaptation of the imaging processing software, thereby saving costs and time for commissioning and maintenance.

Consistent response time for high efficiency



Once set up and in operation, the IVS 108 Simple Vision sensor has a reliably consistent response time of 50 milliseconds, even with changing objects and ambient and application conditions. This makes it extremely easy to calculate whether the sensor meets the requirements of a production process.

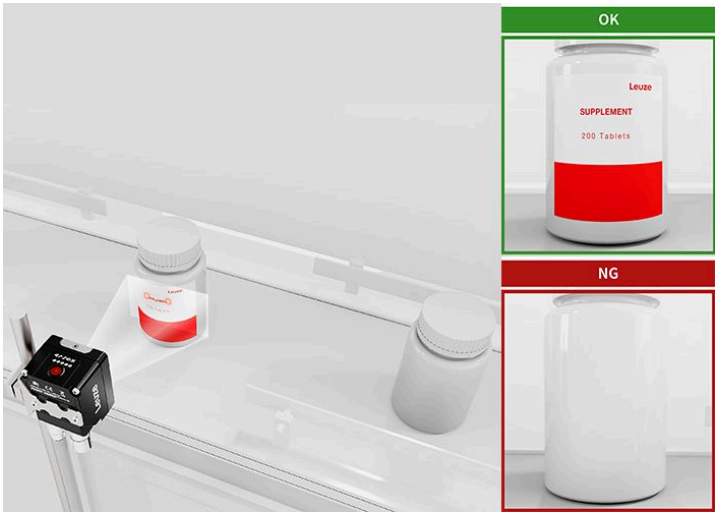
The new IVS 108 Simple Vision sensor for detecting the presence of objects can be easily set up and put into operation. Typical areas of application are food and beverages, pharmaceuticals and cosmetics, processing and packaging machines, filling systems and intralogistics. Owing to its versatility and flexibility, the sensor is also suitable for transport, sorting and handling systems, the automotive industry, quality control and the automatic mounting of mechanical or electronic parts.



Presence detection of information printed on packaging

Requirement:
On packaging, printed information is required to ensure traceability in the production process, e.g. the use-by date or the batch number of the product. This makes it necessary to detect the information printed on the packaging.

Solution:
The new IVS 108 is suitable for detecting information printed on packaging and, if required, supplies an image of the object. It is easy to set up and put into operation and also offers an outstanding price/performance ratio.



Presence detection of labels on bottles

Requirement:
It must be ensured that a label is affixed to a bottle or container. Difficult-to-detect, highly transparent labels too must be reliably detected.

Solution:
The new IVS 108 can reliably detect the presence of highly transparent labels on any surface. Furthermore, the images from this Simple Vision sensor can be transferred for fault analysis or for future optimization.

Presence detection of printed information on cans

Requirement:
Printed information, either printed on labels or printed directly on cans for the purpose of traceability during the production process, is to be reliably detected. Furthermore, it must also be possible to analyze fault images to enable optimization of production performance.

Solution:
The new IVS 108 is ideal for the visual post-control of labels or of markings that are directly printed on cans. At the same time, the images can be transferred for subsequent analysis, should this be necessary.

Presence detection of accessory parts on packaging cartons

Requirement:
With drink cartons, it must be checked whether a drinking straw is attached to the packaging. In addition, it must be possible to use the fault images for optimization of the production processes.

Solution:
The IVS 108 is a user-friendly and low-cost device both for detecting accessory parts and for image transfer. It is easy to set up and delivers reliable inspection results.

Technical properties

Feature	IVS 108
Electrical data	
Power supply	10 … 30 VDC
Power consumption	4.2 W
Integrated illumination	4 high power, white, polarized
Alignment aid	2 x LED, red
Interfaces and protocols	Digital I/O, Ethernet 100 Mbit/s with TCP/IP
Digital switching inputs	2x optical coupler (teach and trigger)
Digital switching outputs	3x PNP/NPN/push-pull (selectable for GOOD, NO GOOD and data valid)
Response time	50ms fixed
Optical data	
Camera type	Monochromatic black/white
Working distance WD	50 ... 150 mm
Field of vision FoV	WD=50 mm: 22 mm x 16 mm; WD=150 mm: 55 mm x 41 mm
Opening angle, horizontal	19°
Opening angle, vertical	14.5°
Focus adjustment	Motorized adjustment of focal position with autofocus
Camera shutter	Global shutter
Mechanical data	
Dimensions (H x W x D)	58 x 47 x 38 mm (without connections)
Fastening	2x M3 thread, spacing 37.6 mm
Adjustment and indicators	
Teach button	Teach GOOD / NO GOOD (alternatively via webConfig)
Indicators on top of sensor	HMI with 5 LEDs

On rear of sensor	Status LED for voltage (blue) and Ethernet connection (yellow)
On front of sensor	LED GOOD: green; LED red: NO GOOD

IVS 108 M1-102-W0

- Vision sensor

Series: IVS 108
Type: Ethernet
Type of interface: Ethernet
Camera resolution, horizontal: 320 px
Camera resolution, vertical: 240 px
Max. throughput per second: 20 pieces per second
Measurement value calculation time: 50 ms

По вопросам продаж и поддержки обращайтесь:

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