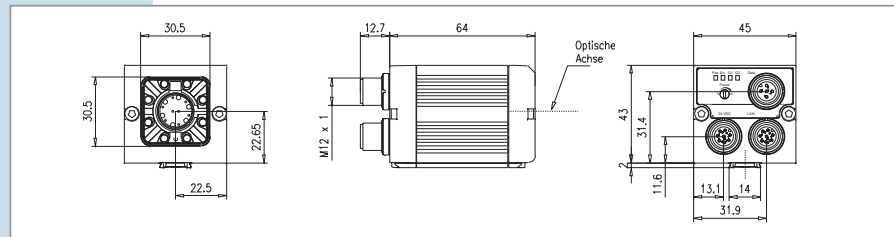


Technical data

Electrical data	
Operating voltage	24VDC +/- 10% (absolute maximum values 10-30V)
Residual ripple	< 5V ss
Current consumption (without I/Os)	max. 50 mA
IN1 / IN2 inputs	High 10 ... 24V (+10%), Low 0 ... 3V
Trigger input	rising edge, 10V ... Ub
Outputs OUT1 ... 4	PNP (N.C., pull up MOSFEET)
Output current (per output)	200 mA (max. 9.6 W)
Short-circuit protection (all outputs)	yes
Polarity reversal protection (all outputs)	yes
Interfaces	Ethernet (LAN) RS422 / RS485
Class of protection	2 (50V)
Optical data	
Number of pixels, technology	FA 45 WCC 640 (horizontal) x 480 (vertical)
Integrated measuring illumination	white light or infrared LEDs
Integrated lens, focal distance	6 or 12 mm, focal length adjustable
Lens (adjustable up to ∞)	6 12
Min. measuring distance in mm	20 40
Min. field of view X * Y in mm	7*6 7*6
Range of depth of focus	approx. +/- 5 % of measuring distance
Mechanical data	
Length x width x height	65 x 45 x 45 mm ³
Weight	approx. 170 g
Ambient operating temperature	-0 °C ... 50 °C (80 % air humidity, non-condensed)
Storage temperature	-20 °C ... 60 °C (80 % air humidity, non-condensed)
Protection standard	IP 65/67
Type of connection	Power/I/O connector M12 8-pin, Ethernet M12 8-pin, process M12 5-pin
Casing material	aluminium, plastic
Selection table	
FA45-400 OB	Object detection (control of parts), up to 32 objects
FA45-300 CR	Code reader (DataMatrix, bar code)
FA45-300 CO	Colour sensor, up to 32 colours



Comprehensive range of accessories:

All installation material and cables, external illuminations, C-mount lenses and C-mount protective case, IP68 stainless steel protective case, corner mirror.

SENSOPART
SENSORS FOR AUTOMATION

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A S E N S O P A R T I N N O V A T I O N



FA 45 VISION SENSOR

The first truly industrial vision sensor with an excellent cost-performance ratio.

SENSOPART

The industrial-suited vision sensor sets standards: simplest user interface and excellent cost-performance ratio.

The FA 45 Vision Sensor unites simplest user interface and optimum handling with the stand-alone function of a classic sensor: Camera, illumination, adjustable optic, sensor connector, high-performance evaluation electronics, data interface and process interface - all in one. Complex inspection tasks in production lines and

processes previously required elaborate and expensive components. With the FA 45 Vision Sensor these are no longer necessary. **This innovative solution offers answers for various applications on a standardized hardware and software platform: dedicated and therefore simple.**



A SENSO PART INNOVATION

With the new FA 45 sensor from SensoPart you can cope with inspection tasks for which you previously used vision systems - and even at a fraction of the price. Startup is made so simple that also technicians with no expert knowledge of vision systems, i.e. users of standard sensors, may carry it out after a short instruction. In case of batch changes during production, you can switch to new features by means of simple teach-in or parameter download. Thus you can realize fully automated and flexible mounting machines and process lines.

1. DETECTION OF OBJECTS

Detection of all types of parts:

- Completeness
- Presence
- Position, x/y coordinates
- Inclination 360°
- Sorting function
- Up to 32 features codable individually

AN EXAMPLE OF USE:

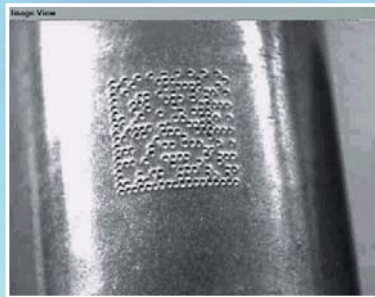


Up to 32 features may be graphically selected directly on the target object. The features are arbitrarily adjustable regarding their position and size. In addition, they are consequentially connectable and therefore e.g. suited for the detection of missing parts or sorting tasks. This way, even complex parts may be checked for Good/Bad, correct position or completeness in a reliable way. And all that functions clearly laid out on only one screen - few steps to a reliable stand-alone solution.

2. CODE READER

- Reading of DataMatrix ECC200 codes
- Reading of the most important bar codes
- DataMatrix codes, with up to 52 modules, square and rectangular codes
- Robust reading on paper, metal, plastics, etc.
- Simple setting

AN EXAMPLE OF USE:



This code reader reads your codes without demanding extensive setting - independent of the material or the printing method on the object. The output is effected via an industrial-suited RS422/485 interface. The very robust reading function together with the automatic determination of the code make the installation process very easy.

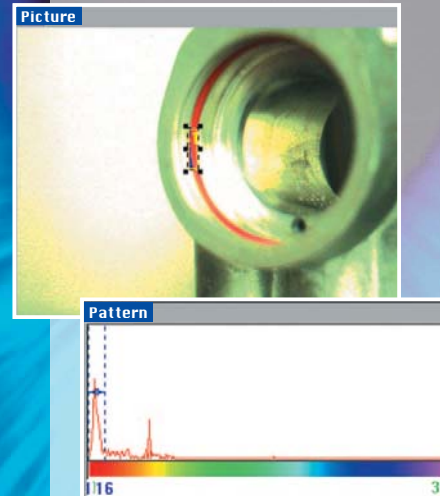
A solution with an excellent cost-performance ratio and simplest handling.

3. COLOUR SENSOR

Checks the presence of:

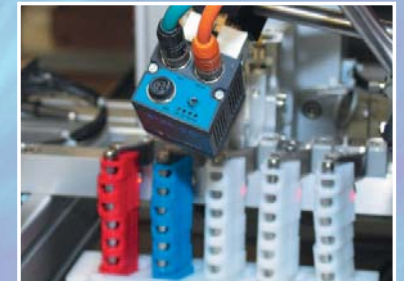
- Colour marks
- Coloured components
- Wire colours
- Active light sources and their colour
- Colours on labels, packagings, etc.
- Up to 32 colours codable individually

AN EXAMPLE OF USE:



Select the colour graphically on the image of the target object. Set the threshold values for the colour in the colour histogram. The colour evaluation is ready. Of course it is also possible to define and consequentially connect up to 32 colours, and to set the search area. Another dedicated way to handle complex applications with only a few work steps.

FA 45 IN PRACTICE



→ Sorting of plastic clamps by colours with the FA 45 Vision Sensor



→ Position check of plastic clamps with the FA 45 Vision Sensor