



SMART
SENSOR
BUSINESS

ACR 300*i* VISION SENSORS

An impressive range of easy-to-use
image processing sensors

easy handling.



HIGH-RESOLUTION USER FRIENDLY OPERATION

ACR 368i: The real professional solution for image processing

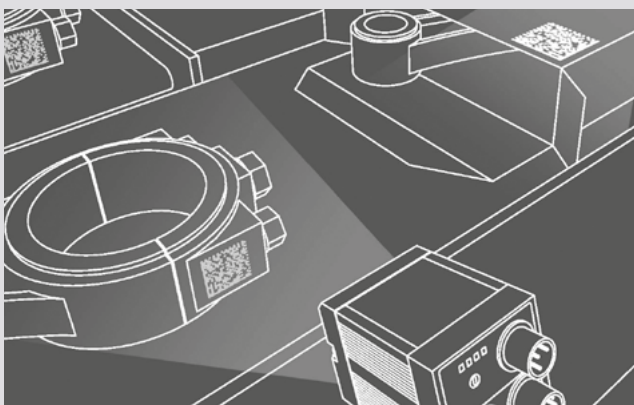
Specifications	ACR 368i PROFESSIONAL, monochrome	
Resolution (pixels)	1280 x 1024	
Image rate per second	40	
CMOS	1/1.8", monochrome	
Lens type	Integrated lens type 12 mm	C-Mount (external)
Reading distance	50 ... 550 mm	Depending on lens type
Illumination (LEDs)		
– Monochrome model	white, red, infrared	N/A
– Color model	white	N/A
– External	ALS panel, white LEDs	ALS panel, white LEDs
Focus	Adjustable	Depending on lens type
Number of jobs / detectors	Max. 255 / max. 255	
Inputs / outputs	2 / 4 (2 free definable)	
RS422 / RS232	Yes (software selectable)	
Ethernet, EtherNet / IP	Yes	
PROFINET interface	Yes	
Dimensions (W x H x L)	45 x 45 x 65 mm	



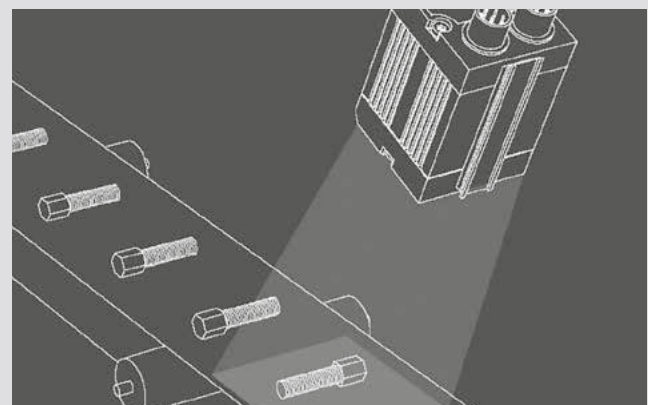
Model with integrated lens

Product Highlights:

- Highly accurate evaluation via 1.3 mega-pixel chip
- Powerful part-finding and tracking
- Precise determination of X/Y position, orientation and tracking
- Can be used for all common 2D-Codes (Data Matrix ECC 200) and common 1D-bar codes
- User-friendly configuration and viewer software with graded user rights and online help



Evaluation of printed and directly marked codes



Feeding of small parts in correct alignment

HIGHLY ACCURATE ALL-INCLUSIVE FUNCTIONALITY

ACR 398i: The vision sensor for complex inspection tasks

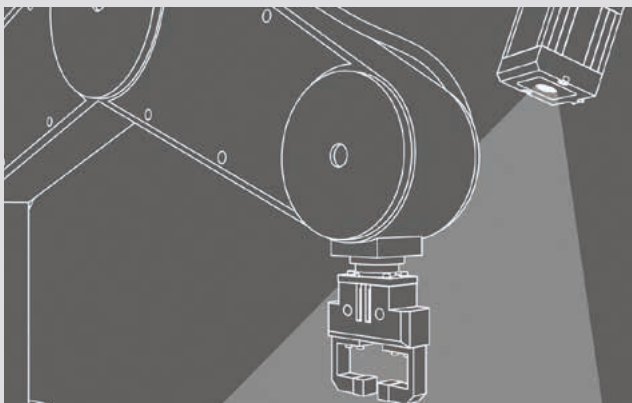
Specifications	ACR 398i ALL, monochrome or color	
Resolution (pixels)	1280 x 1024	
Image rate per second	40	
CMOS	1/1.8", monochrome or color	
Lens type	Integrated lens type 12 mm	C-Mount (external)
Reading distance	50 ... 550 mm	Depending on lens type
Illumination (LEDs)		
– Monochrome model	white, red, infrared	N/A
– Color model	white	N/A
– External	ALS panel, white LEDs	ALS panel, white LEDs
Focus	Adjustable	Depending on lens type
Number of jobs / detectors	Max. 255 / max. 255	
Inputs / outputs	2 / 4 (2 free definable)	
RS422 / RS232	Yes (software selectable)	
Ethernet, EtherNet / IP	Yes	
PROFINET interface	Yes	
Dimensions (W x H x L)	45 x 45 x 65 mm	



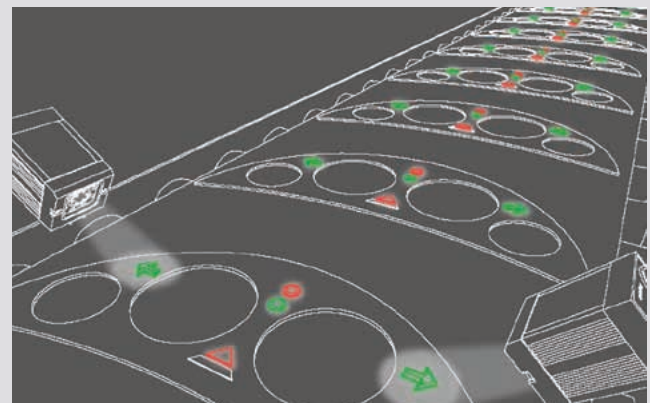
C-Mount model

Product Highlights:

- Most common interfaces for all devices
- Easily configurable image processing tools and preprocessing filters
- For reliable evaluation and comparison
- Image resolution can be scaled in software for high-speed analysis
- Standardized electrical and mechanical design



Pick and Place



Inspecting LEDs in car production

SIMPLE EFFECTIVE COMPREHENSIVE

ACR 300i: Vision sensors and systems for factory automation

Unpack, set up – it's ready to run! Vision sensors have never been as easy and intuitive to use despite unprecedented levels of performance. The ACR 300i is ready with just a few mouse clicks. There is now a simple and effective solution for even the most challenging vision tasks. Whether these involve complex object shapes, color detection, data matrix codes, fluorescent display elements or edge chipping on solar cells – our application-specific vision sensors reliably detect all relevant object characteristics.

- Universal interface for all ACR 300i devices, which means universal PLC modules
- Versions with increased depth of field, so no need for autofocus
- Profinet with update rate of 4 ms, including image transmission
- Easily configurable image processing tools and preprocessing filters for reliable evaluation
- Image resolution can be scaled in software for high-speed analysis
- Standardized electrical and mechanical design
- ACR 300i software for all versions – this minimizes the need for training

ACR 300i Vision Sensors	ACR 368i	ACR 398i	ACR 398i color
Bar Code (1D)	√	√	√
Data Code (2D)	√	√	√
Pattern Comparison	√	√	√
Contrast	√	√	√
Brightness	√	√	√
Gray Level	√	√	√
OCR	√	√	√
Edge Detection	√	√	√
BLOB		√	√
Contour		√	√
Caliper		√	√
Color			√



Model with integrated lens



C-Mount model



ALS External area light panel



ALA Connection adapter for ALS panel

Typical applications tasks:

- Reading and quality assessment of most 1D and 2D bar code types (Bar Code, Matrix Code)
- OCR – Optical Character Recognition of printed, laser-etched or dot-peened characters
- Object search based on contour comparison and on pattern matching (Contour and Pattern Matching)
- Contrast, Brightness and analysis of gray threshold in search zone (Contrast, Brightness, Gray Level)
- Counting and evaluation of objects (BLOB)
- Measurement of the distance between edges (Caliper)
- Output of color values via interfaces, Color evaluation via list and via plane (Color detection)
- High-performance edge finder for position tracking (Edge detection)
- Reliable detection of the color, shape and size of caps for trustworthy differentiation of contents