

**Vision Inspection for Quality Control** 

# SmartSpect



# **SmartSpect**

The Laetus SmartSpect ID-Reader camera system offers attractive software application modules. SmartSpect is a perfect web-based camera system for identification applications throughout the packaging process.

The compact design makes SmartSpect the solution of choice for numerous control areas, guaranteeing packaging quality and security as well as efficiency.

SmartSpect provides various application modules to perform a range of automatic product identifications:

- Fast, accurate and consistent reading of all standard one- and two-dimensional bar codes, including verification of the bar code print quality
- Highly reliable for plain text recognition and reading of various fonts regardless of background-design
- Flexible mix of application modules to solve complex requirements
- Controlled operator access to system parameters allows easy system adjustments
- Application tracking software allows adjustment of camera inspection area to various objects and rotational positions

#### **EXAMPLES**



Rotation tolerant print inspection and incremental number check



Track & Trace application with verification of GS1-Data Matrix and human readable text consistency (same data content), with additional Data Matrix quality inspection in accordance to ISO 15415





## **APPLICATION MODULES**

Application Module	Feature Description		
Bar Code	Omni-directional reading of normal or inversely printed bar code. Total or partial content match function.		
	Compatible to GS1 (EAN-UCC) data structures (Data Matrix, GS1 DataBar).		
	ISO related verifier mode to check the bar code print quality in accordance with ISO standards ISO / IEC 15415 (2D-Code) and ISO / IEC 15416 (1D-Code).		
	Reads EAN / UPC, Code 39, Code 32, 2/5 Interleaved, Code 128, Code 93, Codabar, GS1 DataBar, PDF 417, Data Matrix ECC 0140, Data Matrix ECC200, GS1-Data Matrix, 2D-Pharmacode, QR Code, Composite Symbology (GS1).		
PHARMA-CODE™	Code conforms to Laetus specification (Pharmaceutical Bar Code Guide 2013) and additional adjustable sizes like Micro Code.		
	Min. 2 bars, max. 16 bars, direction sensitive decoding standard / reverse, quiet zone check (adjustable quiet zone), omni-directional reading with adjustable rotation angle 0180, partial read mode (horizontal / vertical only).		
OCV/OCR	Font based OCR reader, OCV modus for an easy to operate show and go mode.  Auto character/auto line segmentation, multi character reference, multi font support.		
	Within OCR modus all decoded characters are checked against all trained characters for best matching.		
Consistency Check	Checks results of different applications for matching results (i.e. bar code, OCR).		
Application Tracker	Pattern based $x/y$ and rotation sensitive tracker to adapt the application window position.		

## **SPECIFICATION**

Camera Systems	SmartSpect 131M	SmartSpect 230M				
Resolution (pixel)	1280 x 1024	1920×1200				
Operating System	Windows IoT 64 Bit					
Processor	Intel® Celeron® N2807 (dual core 1.58 GHz)					
RAM/Mass Storage	4 GByte / 64 GByte					
Application Software	Application module PHARMA-CODE, Bar-Code, OCV/OCR, Consistency Check					
Operational Software	Laetus NAVIGATOR, ARGUS wt10 Server, S-TTS					
Power Supply	24 V DC +/-10% / typ. 10.8 W @ 24V DC					
Digital Input	3 opt-isolated inputs 24V, 3.5 mA, On Level > 11V					
Digital Output	2 configurable outputs, 1 trigger output for strobe control opto-isolated 24V, max.50 mA, PTC fuse					
Fieldbus	Profinet (under development)					
Housing	Anodised aluminium					
Protection	IP 67 (IP 40 with lighting)					
Operating Temperature	0°C +50°C					

## SMARTSPECT PACKAGES/CONFIGURATIONS LIGHT MODULE

Components	SmartSpect C-Mount	SmartSpect C-Mount Configured with DAL	SmartSpect C-Mount Configured with PAL CP	SmartSpect 131M-8 DIL-10
Base Camera	Select requir. SmartSpect xxx ID-Reader	Select requir. SmartSpect xxx ID-Reader	Select requir. SmartSpect xxx ID-Reader	SmartSpect 131M ID-Reader C-Mount (incl.)
Lens	as required	as required	as required	C-Mount 8 mm lens (incl.)
Lighting	as required	select kit with 2x DAL S white LED	white polarised LED, select PAL CP S/M	DIL LED white (incl.)
Options		polarisation filter	select light protection tube S/M	n/a
Notes		variable FOV	variable FOV	FOV 74×53 mm









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#### Why Laetus

- Over 40 years of experience in optical quality control ensures reliable solutions
- Track & Trace expert supporting small, medium and global companies
- Flexibility in integrating solutions due to a modular approach
- 24/7 hotline
- Worldwide technical service
- Project management from initial consultation to final implementation
- Quality management through validation
- Training academy with a multitude of individual training courses





