CODES, TEXT & GRAPHICS

scanware

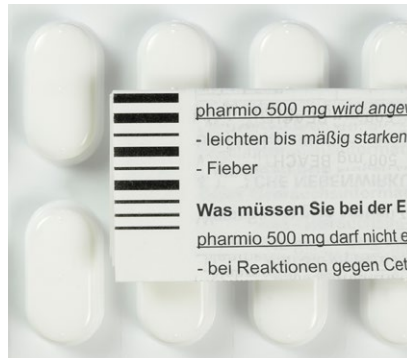## SIGNUM Codes (1 DC / 2 DC)

■ Description

The Code Inspection **SIGNUM Codes** is an inspection system verifying codes which is used on packaging machines in the pharmaceutical industry. The Smart Cameras evaluate the prints of 1D- and 2D-codes with extraordinarily high speed. The optional Controller unit includes a PLC to adopt the system to existing machinery.

■ Area of Application

Code reading on:
▪ Labels
▪ Package inserts
▪ Folding boxes
▪ Lidding foil
▪ Tubes

1D-Codes:
▪ EAN 8, EAN 13
▪ Code 32, Code 39, Code 128
▪ Interleaved 2/5
▪ DataBar
▪ Pharmacode

2D-Codes:
▪ DataMatrix

■ Highlights

▪ Easy, userfriedly, guided teach-in procedure
▪ Error analysis enables the optimisation of code printing
▪ High reading speed since only relevant areas are read
▪ Reads up to 80 DataMatrix- and 150 barcodes per second
▪ Available in various builts for an easy and optimized integration
▪ All common codes can be decoded
▪ Format administration
▪ Display of results of all code readers

■ System

For integrating the network compatible readers in the vision system user inter-face, the full range of current technologies is available: From a wireless LAN laptop, through a stand-alone stationary touch screen terminal, to full integ-ration into a production line terminal in the scope of a global control concept.

With up to 80 DataMatrix codes and more than 150 barcodes per second, the **SIGNUM** readers excel due to their high reading speed. The speed is based on two major factors: an extremely short image acquisition time that is achieved by reading only the relevant part of image.

Despite the high reading speed the code readers recognise the codes in-dependent of orientation and travel direction of the inspected material. **SIGNUM Codes** can handle transport speeds up to 6 m/s.
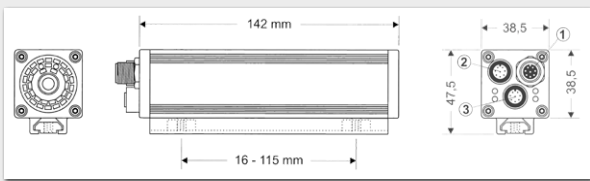
■ Hardware

The code readers are available in different mechnical variations.
Due to the compact form factor the small sensor head is used more frequently.
It is available with front and 90° side optics. The Controller unit can be placed flexible on nearly any position in the machine.
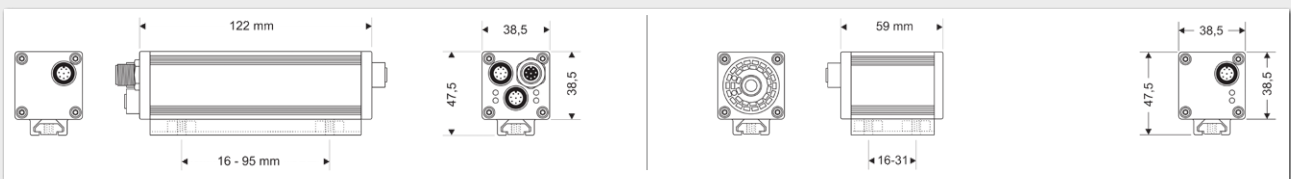
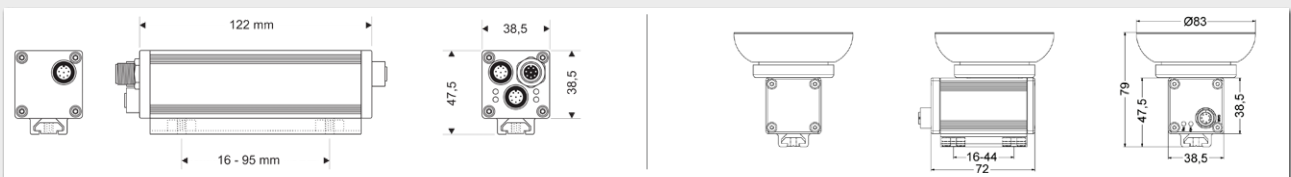**SIGNUM Codes 1 DC**

with built-in front optics

SIGNUM Codes 1 DC / 2 DC

Control unit with separated sensor head – straight version

Control unit with separated sensor head und light diffusing unit – side version

■ Technical Data

Model*	1 DC: H73 & KH73	2 DC: KH73
Sensor	CCD-Matrix (1.034 × 779 pixels)	CCD-Matrix (1.034 × 779 pixels)
Image acquistion	4 ms (35 lines) ... 37 ms (full frame)	
Max. transport speed	6 m/s	6 m/s
Reading distance	73 mm	73 mm
Reading area	54 mm × 72 mm	54 mm × 72 mm
Depth of field	± 5 mm	± 5 mm

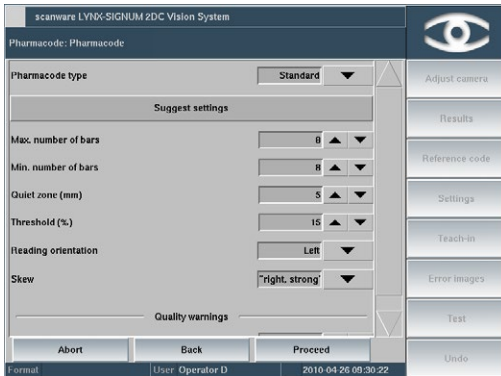| 1D-codes		
Symbologies	Code 32, Code 39, Code 128, Pharmacode	EAN 8, EAN 13, Code 32, Code 39, Code 128, Interleaved 2/5, DataBar, Pharmacode
Reading speed	up to 150 codes/s	up to 150 codes/s
Resolution 1D codes	≥ 0,25 mm (10 mil)	≥ 0,40 mm (16 mil)

2D-codes		
Symbologies	-:-	DataMatrix 10 × 10 up to 144 × 144 and rectangular codes
Resolution	-:-	≥ 0,35 mm (14 mil)
Reading speed	-:-	up to 80 codes/s
Reading angle	-:-	turning angle 360° (omnidirectional), tilting and inclination angle ± 30°
Reading modes	continuous or triggered via digital input	
Digital inputs	2 gate inputs (24 V ± 30 %)	
Digital outputs	3 switching outputs (24 V / 1,5 W), 1 high speed trigger output for external illumination	
Configuration interfaces	RS 232, Ethernet 100Base-T with TCP/IP	
Data interfaces	RS 232/RS 485 convertible, Ethernet 100Base-T with TCP/IP	
Display	1 LED "Ready" 1 LED "Trigger", 2 status LEDs	
Supply voltage	24 V DC ± 20 %	
Power consumption	7,0 W	
Protective class	front optics: IP 65 / side optics: IP 54	
Operating temperature	0 ... +45 °C	
Storage temperature	-20 ... +70 °C	
Air humidity	5 ... 95 % (not-condensing)	
Weight	380 g / **K**: 285 g + 175 g	
Configuration software	configuration via TCP/IP and standard web browser	

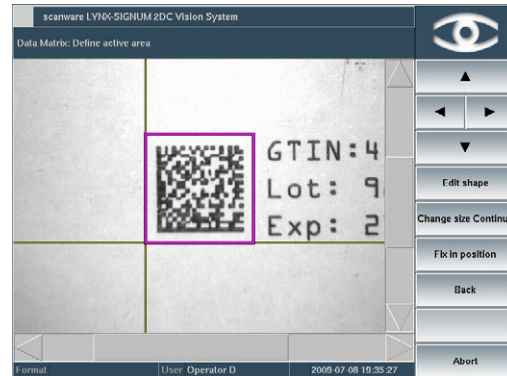* model types: **H** = XGA (1.024 × 768 pixels), **K** = separated sensor head
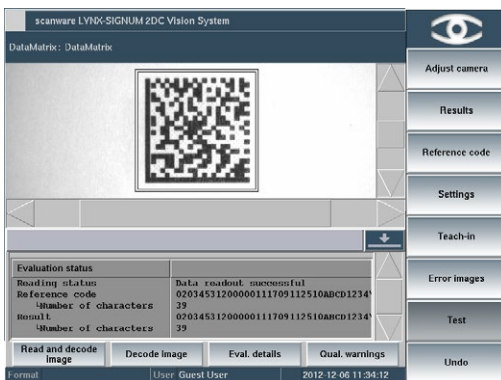
■ Software

The software enables the user to undertake evaluation without any previous knowledge on coding standards and to improve productivity.
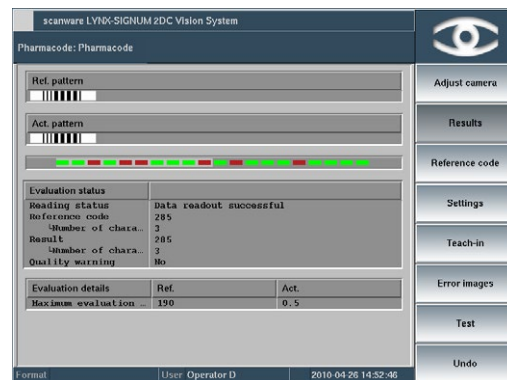

For all coding types, the implemented standard criteria can be adjusted as necessary.

Quiet zones around the code are necessary for correct reading. For ideal reading, the software automatically includes these and provides a visual representation.

The evaluation of faulty codes clearly states the deviation so the problem can be resolved and ejects minimised.

Also, the results of the reading are visualised which makes the recognition of consecutive errors easier.

■ Quality is visible.

- Modular build for a multitude of installation options
- Real-time operating system QNX® for security and speed
- Uniform graphical interface and easy-to-follow menu structure
- Fully 21 CFR Part 11 compliant
- Hard- and software are expandable and upgradable

- Wear-free, electronically controllable scanware W-LED illumination
- Easy to install on all common packaging machinery
- Communication with machine via a VDMA-XML protocol
- Simultaneous use of numerous inspection parameters
- Variety of statistical tools

- Development of special tasks and requirements on your request
- Availability of all parts guaranteed for 10 years
- Service offering solutions and support within 24 hours

Management   **Packaging**   **Blister & Products**   **Codes, Text & Graphics**   **Track & Trace**   **Support**

scanware

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