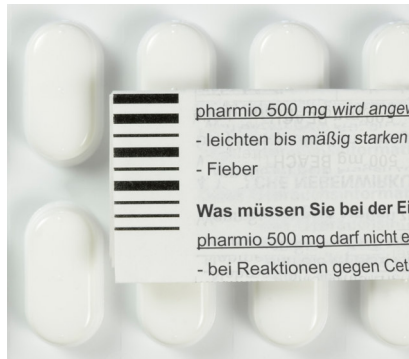


# CODES, TEXT & GRAPHICS INSPECTION



## SIGNUM Codes (1DC / 2DC)

### Description

The Code Inspection **SIGNUM Codes** is used on packaging lines, especially in the pharmaceutical industry, for verifying codes. The smart cameras evaluate the prints of 1D- and 2D-codes with extraordinarily high speed. The optional controller unit includes a PLC to integrate the system into 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, user-friendly, 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 builds for an easy and optimised 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 interface, the full range of current technologies is available: From a wireless LAN laptop, through a stand-alone stationary touch screen terminal, to full integration 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. This 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 independent of orientation and travel direction of the inspected materia. **SIGNUM Codes** can handle transport speeds of up to 6 m/s.

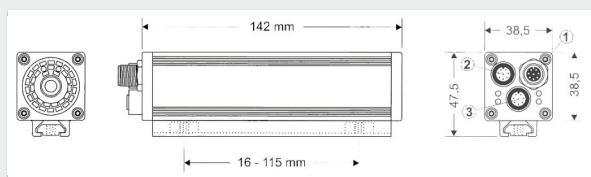
## ■ Hardware

The code readers are available in different mechanical variations, a selection of which is depicted below.

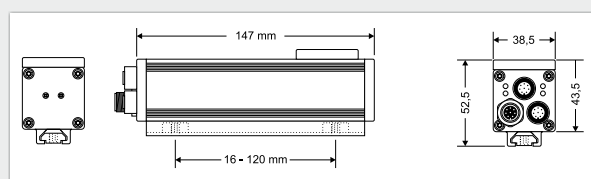
Due to the compact form factor the small sensor head is used more frequently. It is available with front and 90° side optics. The Controller unit can be placed flexible on nearly any position in the machine.

### SIGNUM Codes

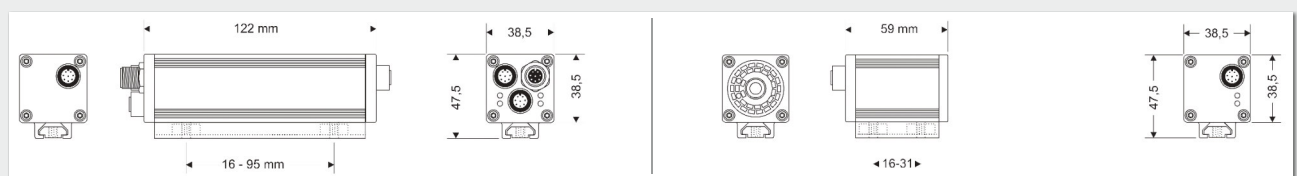
with built-in front optics



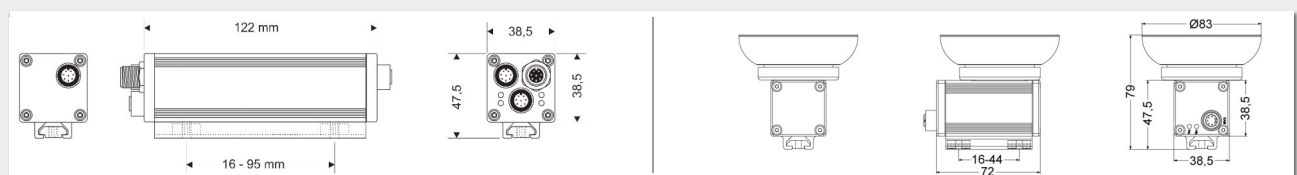
with built-in side optics



Controller unit with separated sensor head – straight version



Controller unit with separated sensor head and light diffusing unit – side version



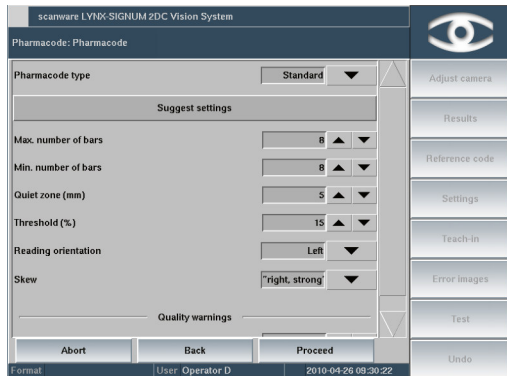
## ■ Technical Data

Sensor	CCD-Matrix (1.034 × 779 Pixel)
Image acquisition	4 ms (35 lines) ... 37 ms (full frame)
Max. transport speed	6 m/s
Reading distance	73 mm
Reading area	54 mm × 72 mm
Depth of field	± 5 mm
1D Symbolologies	EAN 8, EAN 13, Code 32, Code 39, Code 128, Interleaved 2/5, DataBar, Pharmacode
Reading speed 1D	up to 150 codes/s
Resolution 1D codes	≥ 0,40 mm (16 mil)
2D Symbolologies	DataMatrix 10 × 10 up to 144 × 144 and rectangular codes
Reading speed 2D	up to 80 codes/s
Resolution 2D codes	≥ 0,35 mm (14 mil)
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	depending on chosen model
Operating temperature	0 ... +45 °C
Storage temperature	-20 ... +70 °C
Air humidity	5 ... 95 % (not-condensing)
Weight	depending on chosen model
Configuration software	configuration via TCP/IP and standard web browser

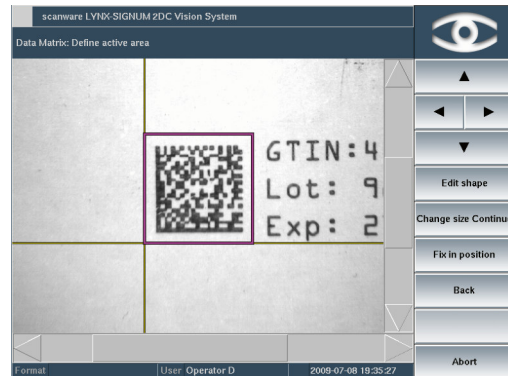


## ■ Software

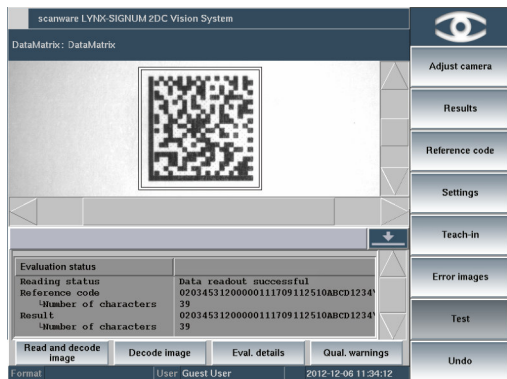
The software enables the user to undertake evaluation without any previous knowledge on coding standards and to improve productivity.



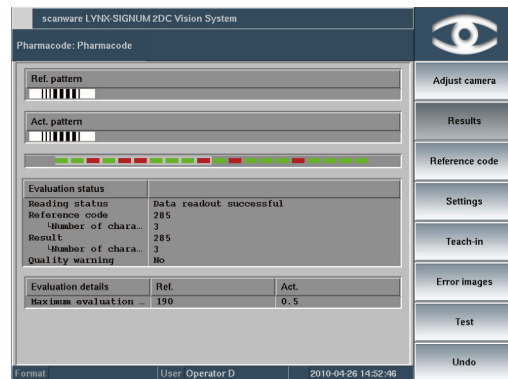
For all coding types, the implemented standard criteria can be adjusted as necessary.



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 type of deviation so the problem can be resolved and rejects 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
- Hard- and software are expandable and upgradable
- Fully 21 CFR Part 11 compliant
- Wear-free, electronically controllable scanware W-LED illumination
- Easy to install on all common packaging machinery
- Communication with machine via a VDMA XML\_P or OPC UA 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**

**scanware electronic GmbH**  
Darmstädter Straße 9-11  
D-64404 Bickenbach  
Telephone +49 6257 9352-0 Fax -22  
info@scanware.de  
www.scanware.de

International partners:  
Belgium | Brazil | Canada | China | Croatia | Denmark | Egypt | Finland  
France | Great Britain | Greece | Hungary | India | Ireland | Mexico  
Netherlands | Norway | Poland | Portugal | Puerto Rico | Romania  
Serbia | Slovakia | Slovenia | Spain | South Korea | Sweden | Switzerland  
United States

