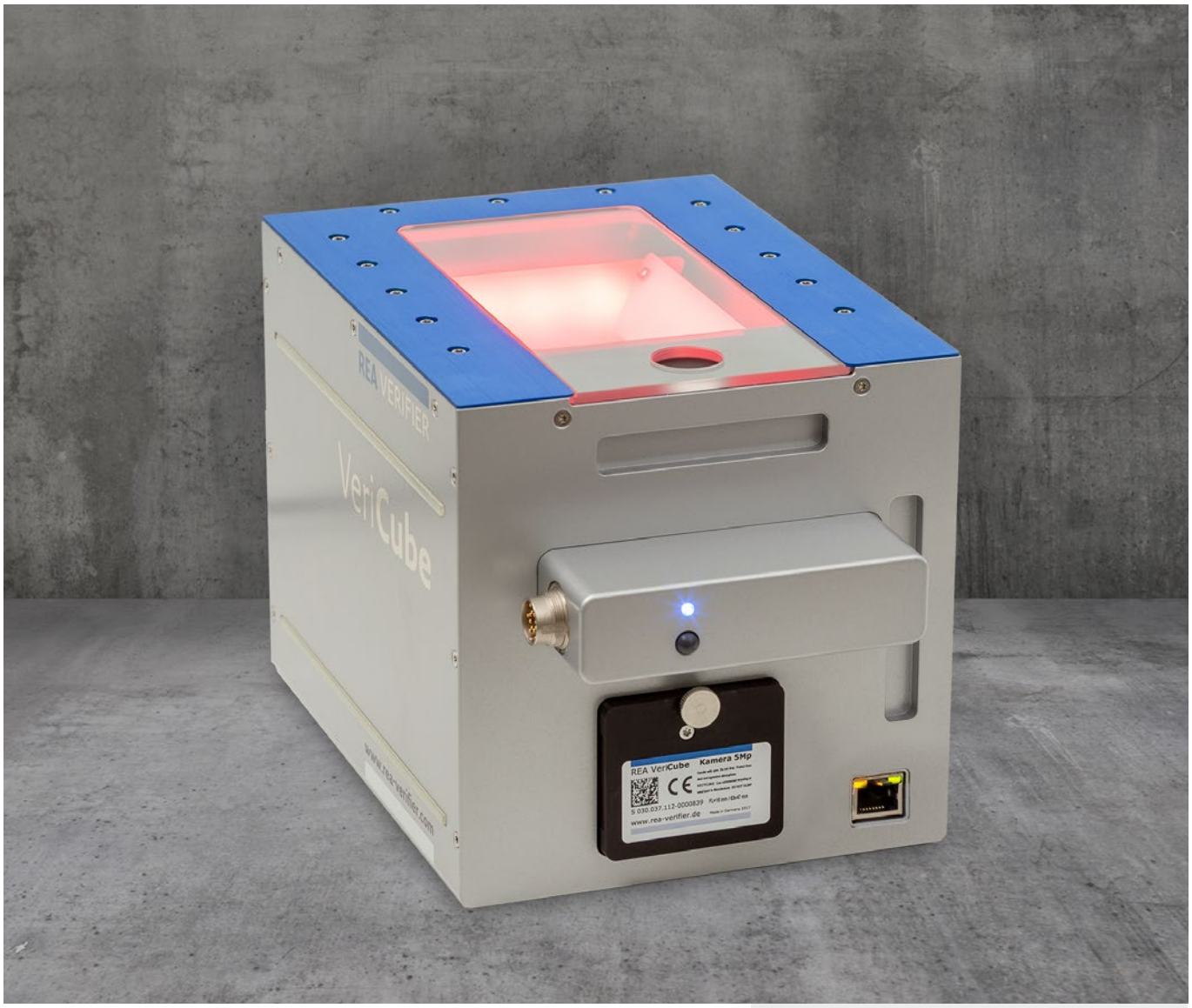
# REA VERIFIER

QUALITY CONTROL DEVICES
FOR MATRIX- AND BARCODES

## REA VeriCube ILS

Quality Control Device
for 2D Matrix- and Barcodes



# REA VeriCube ILS

The REA VeriCube ILS (inline automated sample taking) is a state-of-the-art matrix and barcode verification device which can be used across all industry sectors. It is integrated into a machine setup und connected via digital I/O to the machines PLC system.

The measurement of optical codes in compliance with defined angles, distances and lighting allows accurate and reproducible measurement results and quality evaluations. In difference to inline scanners the REA VeriCube ILS needs to be mounted precisely in question of angle and distance into a machine. Ambient light protection is required.

Due to regular calibration and adjustment of the REA VeriCube ILS it must be easy to remove it from the machine.

The measured values are transmitted via a standard network interface to a PC with REA TransWin32 evaluation software installed.

Via PLC signals the control systems sends a trigger signal when to verify. The REA VeriCube ILS answers with digital signals indicating Pass, Fail and No Read.

The verification system consists of the measuring head, an optical module (CMOS camera) with a wide measuring range to choose from and the Windows based PC evaluation software REA TransWin32.

With the REA VeriCube you can quickly find out how to improve the read rate of the tested codes.

Optimize the print quality of your codes by utilizing detailed measurement results.

## Features

- **PLC Interface with 24V Digital I/O**
- Contact-free measurements by a CMOS camera
- Easy exchangeable camera modules to adapt to different code sizes and measuring distances
- Selectable diffuse illumination (red or white light)
- Measuring focal point 15mm in front of the device to simplify integration and allow an easy positioning of measuring samples.
- Darkened measuring chamber to avoid ambient light influences
- Verification according to ISO/IEC 15415 for printed matrix codes
- Verification according to ISO/IEC TR 29158 (formerly AIM DPM guideline 2006) for direct part marking matrix codes
- Optional diffuse Illumination for glossy materials
- Verification in compliance with GS1 specifications
- Verification of GS1-128 data structures
- Verification of optional parameters for optimizing the print process
- Multilingual user interface and reports
- For ease of use, settings can be stored in customized profiles for fast selection
- ISO/IEC 15418 / ANS MH10.8.2 data structure analysis
- Specific code selection to meet the pharmaceutical industry demands
- Network-compatible PC evaluation software TransWin32 for Windows (integrated user management)
- Power supply via network cable (Power over Ethernet)
- Easy removable and exchangeable glass cover plate

# Code Types

## Matrix Codes (2D):

Data Matrix, DPM-Matrix Codes, QR-Code, MicroQR-Code, Aztec Code, PDF 417, HanXin Code more under development

## Barcodes (1D):

EAN-13, UPC-A, UPC-E with / without ADD-ON, EAN-8, 2/5 Interleaved, ITF-14, Frachtpost, Code 39, PZN-Code, Code 32, Code 128, GS1-Databar, GS1-Databar Composite

## Optional Codes:

2/5 3 Bars, 2/5 5 Bars, 2/5 IATA, 2/5 Baggage, 2/5 DHL Express (Frachtpost-Code), Code 39 Full ASCII, Code 93, MSI, Plessey, Codabar Monarch (18), LAETUS Pharmacode, LAETUS Mini Pharma Code

Options: REA VeriCube stand, optional Symbologies, ScanLink, Article Look up Software, Data Analysis

## Data structures and properties:

- GS1 data structures (GS1 Data Matrix, GS1-QR-Code,GS1-128, GS1 Databar, Composite)
- ISO/IEC 15418 / ANS MH10.8.2 data structures (AIAG, Odette, VDA, EDIFICE, HIBC, DOD, UPU...)
- EFPIA and PPN support for pharmaceutical industry
- Check digit control settings
- Size control settings
- Customizable date verification

## Technical Data

| measuring distance 0 | | | | | | |
|---|---|---|---|---|---|---|
| **focal length** | **Field of View (FoV)** | **Typical X-dimension** | | **Minimum X-dimension** | | **Pixel size** |
| 16 mm | 64 x 47 mm | 0.25 mm | 10 mil | 0.15 mm | 6 mil | 25 µm |
| 25 mm | 37 x 27 mm | 0.15 mm | 6 mil | 0.09 mm | 4 mil | 14.5 µm |
| 50 mm | 9 x 6 mm | 0.042 mm | 2 mil | 0.036 mm | 1 mil | 3.6 µm |

| measuring distance +15 | | | | | | |
|---|---|---|---|---|---|---|
| **focal length** | **Field of View (FoV)** | **Typical X-dimension** | | **Minimum X-dimension** | | **Pixel size** |
| 16 mm | 68 x 51 mm | 0.27 mm | 11 mil | 0.016 mm | 6 mil | 27 µm |
| 25 mm | 40 x 30 mm | 0.16 mm | 6 mil | 0.10 mm | 4 mil | 15.7 µm |
| 50 mm | 10 x 7 mm | 0.05 mm | 2 mil | 0.04 mm | 2 mil | 3.9 µm |

| measuring distance +45 | | | | | | |
|---|---|---|---|---|---|---|
| **focal length** | **Field of View (FoV)** | **Typical X-dimension** | | **Minimum X-dimension** | | **Pixel size** |
| 25 mm | 47 x 25 mm | 0.2 mm | 8 mil | 0.10 mm | 4 mil | 18.4 µm |

Each focal length is available with a focal distance adjustment either on the device top plane or with a distance of 15 mm to the device top plane. The 15mm distance is required to allow an easy meachanical integration and to avoid that parts hitting against the REA VeriCube.

- Measuring accuracy compliant to ISO/IEC 15426-2 and ISO/IEC 15426-1
- Measuring speed: 1 measurement per 5 sec. sample must stand still while measurement is in progress
- Windows Software TransWin32 included
- Red LED light 660nm or white LED light 4.000 °K
- I/O panel (24 V) for start scan, Start live image, get pass, fail or no read, light source selection
- RJ45 Ethernet port for TCP/IP communication for unattended detailed result transfer and PoE Power supply
- Exchangeable camera module, resolution 2592 x 1944 pixel
- Camera focus and aperture pre-adjusted by factory
- Size: 200 x 150 x 150 mm (w/l/h), with key panel 210 mm width
- Weight: 2.600 g
- Windows 7, 8 and 10, 64bit support

Specifications and features are subject to change without notice

# REA VERIFIER

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