REA VERIFIER

QUALITY CONTROL DEVICES
FOR MATRIX- AND BARCODES

REA VeriMax

Inline Control Device
for the quality verification of 2D Matrix- and Barcodes

Verify code quality while production is running

The REA VeriMax is an inline verification device specially developed for fully integrated installation in packaging or production machines for the uninterrupted inline verification of 1D/2D codes during ongoing production. Alternatively, it can be installed as a random sample measuring device.

With its small dimensions, it can be installed in any system and integrated into the machine technology via software and interfaces.

Good to know, all is correct

The measurement of optical codes in compliance with defined angles, distances and illumination enables accurate and reproducible measurement results and quality assessments according to ISO/IEC standards.

Using the REA VeriMax, you can quickly find out if you are in compliance with the legal quality specifications in the pharmaceutical industry as well as user specifications, e.g. in retail. The detailed measurement results allow a precise analysis of the code properties as a basis for optimizing the print quality of your codes.

State of the art code verification

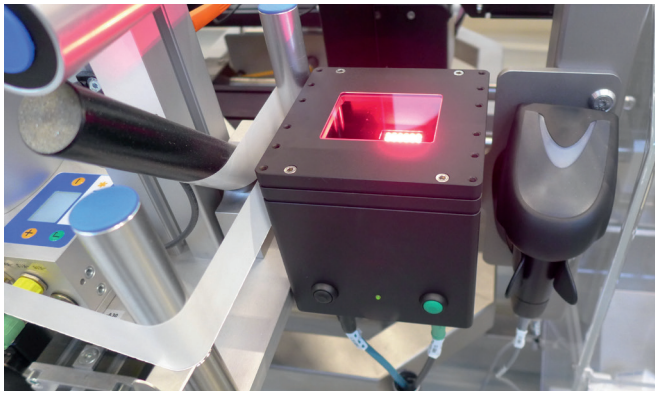
The REA software operates in the background or touch-screen-optimized in the foreground. It is used to measure codes, make settings and manage them. Various print quality requirements can be set and conveniently stored as a profile for each requirement.

The device can be accessed via a programming interface. Operation is then carried out uniformly by higher-level software. The digital PLC I/O interface allows sequence control and result handling. A higher-level software can thus integrate the REA VeriMax completely or also partially (e.g. only the measuring function without setup function).

This makes it possible, e.g. in controlled pharmaceutical production facilities, to collect and record all production-relevant data relating to production batches centrally in one place.

Furthermore, the qualification of measuring instruments becomes an integral part of the machine qualification..

Code verification in the running process


Fully integration into production machine

Features:

- Non-contact code verification by a CMOS camera system
- Uninterrupted inspection of the passing product
- No standstill required due to short flash illumination
- Fixed lens for highest accuracy when integrated into a machine
- Verification according to ISO/IEC 15415 for printed matrix codes and ISO/IEC 15416 for printed barcodes
- ISO/IEC 15418 / ANS MH10.8.2 Data structure analysis
- Verification according to ISO/IEC 29158 (formerly AIM DPM guideline 2006) for direct part marking matrix codes (optional)
- Verification in compliance with GS1specifications
- Specific code selection to meet the pharmaceutical industry and other industries
- Verification of optional parameters to optimize the print process
- Settings for user-defined profiles, for easy operation and faster selection
- Multilingual user interface and reports (REA software)
- Removable top cover plate with replaceable glass plate (optional: construction of customized cover plates)
- Available as OEM version with neutral housing

Code Types

Matrix Codes (2D):

ISO/IEC 16022 Data Matrix, ISO/IEC 18004 QR-Code, ISO/IEC 24778 Aztec Code, ISO/IEC 20830 Han Xin Code, AIM ISS DotCode, ISO/IEC 15438 PDF417, ISO/IEC 24728 MicroPDF417

Barcodes (1D):

ISO/IEC 24723 Composite Code, ISO/IEC 15420 EAN/UPC (EAN-13, EAN-A, UPC-A, UPC-E and Add-On), ISO/IEC 15417 Code 128, ISO/IEC 16388 Code 39 (with PZN and Code 32), ISO/IEC 16390 interleaved 2 of 5 including ITF-14, ISO/IEC 24724 GS1 DataBar

Optional Codes:

2/5 3 Bars, 2/5 5 Bars, 2/5 IATA, 2/5 Baggage, 2/5 DHL Express (Frachtpost-Code), Code39 Full ASCII, Code93, MSI, Plessey, Codabar Monarch (18), LAETUS Pharmacode, LAETUS Mini Pharma Code, Russian Crypto Code, China Drug Supervision Code, Japan CVS payment Code, UPU-S10 Postal Codes, DPD Parcel Service

Data structures and code properties:

- GS1 data structures: GS1 DataMatrix, GS1 QR-Code, GS1-128, GS1 Databar, GS1 Composite Code), Crypto Code (GS1 General Specifications)
- ISO data structures: ISO/IEC 15418 / ANSI MH10.8.2, ISO/IEC 15459 (part 1 to 8), ISO/IEC 15434 used by Issuing agencies and associations: AIAG, Odette, VDA, EDIFICE, HIBC, DOD, UPU, JEISA, JEITA, IFA ...)
- ISO 28219, ISO 22742, ISO 15394
- EFPIA and PPN support for pharmaceutical industry (delegated Act EU 2016/161 and UDI/MDR 2017/745, 2017/746, US DSCSA, Turkey and more, US GUDID alignment (UDI)
- DOD MilStd 130 IUID support, AIT (German Armed Forces)
- Check digit control settings
- Size control settings
- Customizable date verification
- Optional database (item number verification)

Evaluation:

- ISO/IEC 15416 for barcodes, ISO/IEC 15415 for 2D Codes
- ISO/IEC 29158 and SAE AS 9132 for DPM
- GB/T 14258 (China barcode), ANSI X3.182

Technical Data:

Focal length	Field of view	Typical X-dimension		Minimum X-dimension		Pixel size
12 mm	41 x 32 mm	0,31 mm	12 mil	0,21 mm	8 mil	31 µm

- Verification device and measurement accuracy in compliance with ISO/IEC 15426-2 and ISO/IEC 15426-1
- REA VeriMax software for Windows
- Housing milled from solid aluminum
- Darkened measuring chamber to avoid ambient light influences
- Protection class IP54
- Red light LED 660 nm
- Illumination angle 45°, four-sided
- Status LED
- Power supply 24 V (control cabinet PLC or optional power supply unit)
- Two buttons, one for trigger scan and one mode button (live image on/off)
- Ethernet 1GB/s network connection
- Camera resolution 1280 x1050 pixel
- Camera sharpness and aperture settings fixed ex works

- 5 measurements per second and a maximum product speed of 150 m/min are possible
- Depth of field up to +2mm
- Dimensions: 120 x 120 x 120 mm (w/l/h) with buttons 126 mm
- Weight: 1560 g
- Windows 10 and 11, 64-bit

REA VeriMax ports

REA VERIFIER

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