

ident

5/2019

UNOFFICIAL ENGLISH TRANSLATION

The original article was published in German in *ident*, a trade magazine published in Germany. Prepared for CRETEC. The German original remains the reference.

ident Ausgabe 05.2019

VisionTube garantiert normgerechte Code-Verifikation



CRETEC Pressemappe

Stand: 05.2020

Seite 76 / 116

VisionTube guarantees standards-compliant code verification

SOURCE EXCERPT ONLY: supplied article pages 14–15 end at “Modular auf-”; the continuation is missing. All supplied text is translated and the break identified. The printed issue is 5/2019; the archive month May has not been confirmed. Historical 2019 claims about CE marking, UDI in 2021 and performance are retained as published. Original publisher artwork, logos and advertisements are retained in their original language.



VisionTube guarantees standards-compliant code verification

Efficient, complete traceability

Precisely verified code quality enables optimised processes and lower costs throughout the entire value chain. Quality assurance through complete product traceability - at any time and throughout the entire supply chain - is now essential in almost every industry.

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Complete traceability in pharmaceutical and medical technology is an internationally standardised obligation and is essential for patient safety and legal certainty. Without precise quality assessment, poor codes are

only detected when reading problems arise. Errors in 1D or 2D codes, on labels or in DPM (Direct Part Mark) codes can cause many adverse or serious consequences and generate costs throughout the process chain, right through to disposal. Production lines may have to slow down or stop; additional costs arise from re-marking, reduced read rates, scrap or false rejects, customer dissatisfaction and complaints, expensive recourse and even liability claims, problems with quality certification and much more.

Extremely fast evaluation

Not every verifier fully supports all code standards. Previously, there have been either manual inspection stations or systems permanently integrated into production lines at considerable expense. VisionTube is a universal code verification system that can serve as a manual inspection station or inline system with extremely simple operation and installation, high flexibility and performance. As a fast inline system optimised for one test part, VisionTube achieves an evaluation time per code verification of just under 100 ms. This unique concept, including modular, optimised illumination, opens up many new applications even in harsh industrial environments or where hygienic requirements are higher. Reliable code-quality inspection takes just one button press, for sampling or triggered series inspection. It operates independently without a PC and is completely made in Germany. Detailed verification results enable early corrective action throughout the automated identification process.

VisionTube is essentially a complete, modular, open vision system with optimised lighting that combines all tasks in one device: checking code structures, reading human-readable text (OCR), comparing it with code contents, serialisation tasks and checking the presence, readability and quality of best-before dates. As a vision system, it can simultaneously perform dimensional inspections of



Simple operation and fast installation open up many new applications even in harsh environments. The universal verifier provides high processing power independently without a PC and is entirely made in Germany.

components, identify them unambiguously and check their correctness against the code.

No gaps in information

Medical-device manufacturers share responsibility for patient safety and must demonstrate the technical safety of supplied components. Since March 2019, a quality management system compliant with ISO 13485:2016 has been required. Evidence of such a QM system forms the basis for legitimate CE marking of medical devices on the European market. Manufacturers can save time and costs by selecting ISO 13485-certified suppliers.

As early as 2021, UDI marking (Unique Device Identification) will also become a standardised obligation for all medical devices in the EU.

Accordingly, complete traceability by code is essential in almost every area of medical technology and its

products. In hospitals, for example, the particularly stringent requirements for verifying surgical-instrument codes must be reliably met both during manufacture and after refurbishment. Linear, 2D matrix or OCR codes are permanently and tamper-resistently laser-marked onto polished, shiny surfaces. However, the highly aggressive solvents used for sterilisation can cause chemical reactions in the hardened steel at the codes and lead to corrosion. Completely reliable verification is therefore extremely important even for individual parts or small batches.

Code verification - the classification of all quality parameters - differs fundamentally from simply reading codes. Many mechanical parameters, such as shiny surfaces, and optical parameters, such as illumination, must be managed precisely. Numerous features relating to size, resolution, defects, reflection and contrast must be detected. This requires analysing

large amounts of data in the shortest possible time for high cycle rates. Compliance with international identification norms and standards, documentation, user management and integration into internal and external business communication add further requirements.

VisionTube provides standards-compliant verification under ISO 15415, 15416 and 29158 (AIM/DPM). Modularly con- ...

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