

QZ - Qualität und Zuverlässigkeit

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UNOFFICIAL ENGLISH TRANSLATION

The original article was published in German in QZ - Qualität und Zuverlässigkeit, a trade magazine published in Germany. Prepared for CRETEC. The German original remains the reference.

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Efficient code verification

The supplied archive cover incorrectly names PC & Industrie and a lighting article. The actual clipping is the QZ online article "Codes effizient verifizieren", dated 4 November 2019. Historical standards, HALCON version and performance / LED grade statements are retained as printed. Original publisher artwork, logos and advertisements are retained in their original language.

Efficient code verification

Complete traceability of pharmaceutical and medical-technology products is a standardised obligation and is essential for patient safety and legal certainty. A code verification system helps manufacturers inspect their codes.



Precise verification validates data in accordance with all common international standards for 1D codes (ISO 15416) and 2D codes (ISO 15415, ISO 29158, AIM/DPM). © Cretec

VisionTube from Cretec in Hammersbach is a code verification system that can be used as a manual inspection station or an inline system in industrial environments or where hygienic requirements are higher. Code quality is checked at the touch of a button, by sampling or through triggered series inspection. It operates independently without a PC.

The verifier provides standards-compliant verification under ISO 15415, 15416 and 29158. Its modular design is housed in a robust aluminium enclosure measuring 200 mm in diameter and 200 mm high, available with IP54/IP65 protection. It is factory-calibrated at all focal planes and works straight out of the box. A monitor can be connected via HDMI and USB.

The 10-megapixel camera provides a 100 mm-diameter field of view and high resolution for reliable detection of even very small 1D and 2D codes. The fast autofocus lens makes handling test objects more flexible.

Optimised lighting modules

According to the manufacturer, a distinctive feature is the modular, easily and very quickly exchangeable, individually calibrated, variable multicolour lighting. Four RGB LED lighting modules are available to suit the application: on-axis coaxial, off-axis diffuse dome, four-segment 30° dark-field and four-segment 45° low-angle lighting.

The vision kernel uses the proven, highly sensitive HALCON Steady 18.11 software. It analyses code quality, assigns the appropriate quality grades, stores the results and integrates them into internal and external business communication. Immediate indication is provided by a light ring on top, clearly visible from every direction. In accordance with the international grading system, the LED indication uses green for grades A+B, yellow for C and red for D+F.

Automatic verification station

The object is positioned on the glass plate, and its standards-compliant code-quality result is immediately displayed and stored. A printer for the inspection report can be connected directly via USB/RS232.

The camera delivers up to 7 fps. Three digital outputs control rejection of defective products. Optimised direct illumination of the test object prevents disruptive external influences.

www.cretec.gmbh

ENGLISH TRANSLATION / GERMAN ORIGINAL