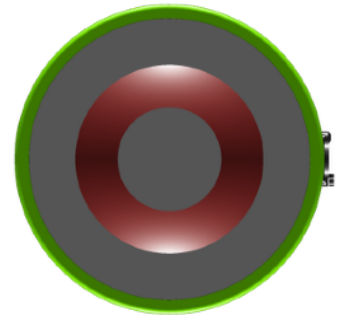
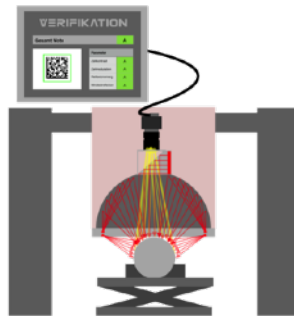




Vision Tube (Verification System)



Specs

Camera	
Sensor Type	CMOS Monochrom
Shutter	Rolling Shutter
Optical Sensor class	1/2,3"
Resolution	10 MP
Resolution (h x v)	3.856 x 2.764 Px
Frame Rate	7 FPS
Optic	10MP Autofokus

Code Specs	
Field of View (max. Code Größe)	Ø 100mm
Minimum line width/module size	0,15mm / 6mil

Intelligenz	
Prozessor	X86 QuadCore Apollo Lake 4x 1,8GHz
RAM	4 GB
HDD	40 GB µSSD
OS	Linux (Debian) / Optional Windows 10 Pro
Vision Kernel	HALCON V13 / Optional MERLIC 3

Gateways	
Digital	1 trigger button / LED illuminated ring
Display	HDMI
USB	2.0
Ethernet	1.000 MBit / OPC UA

Lighting	
Diffus On Axis	Koax-Beleuchtung RGB
Diffus Off Axis	Dome Beleuchtung RGB
Low Angle 30°	4 Segmente RGB
Low Angle 45°	4 Segmente RGB
Dunkelfeld	4 Segmente RGB

Code Verifikation	
Standards Conformity	ISO 15415 (1D Codes auf Labeln) ISO 15416 (2D Codes auf Labeln) ISO 15426-1 (Prüfgeräte für 1D Codes) ISO 15426-2 (Prüfgeräte für 2D Codes) ISO 16022 (Spec Datamatrix Codes) ISO 18004 (Spec QR Codes) ISO 16023 (Spec Maxi Codes) ISO 24778 (Spec Aztek Codes) ISO 29158 / AIM/DPM (direkt markierte Codes) MIL-STD 130 (Spec US Militär) EN 9132 / IAQG AS9132 (DPM Luftfahrt)
Data validation	Syntax von 1D- und 2D-Barcodes UID-Symbolen GS1-Datensätze pharmazeutischen Etiketten mit Verfallsdaten und Chargennummern oder Daten,

symbologies	
1D Codes	GS1-Databar, Code 128, Code 39, Codabar, UPC/EAN, ITF-14, I25, MSI/Plessey, Interleaved 2 of 5, Pharmacode, Laetus Pharmacode,
2D Codes	Data Matrix, QR Code, Aztec Code, GS1-Composite Symbology, MaxiCode, TLC-39, PDF 417, Micro PDF 417, Postnet & IMB, UPS Maxicode

Housing	
Material	Aircraft aluminum turned out of the full
IP code	IP 54 - (IP 65 under examination)
Dimensions H/B/T	200mm x 200mm x 200mm
Mass	

Ambient conditions	
The temperature values given below refer to the outer device temperature of the camera housing.	
Device temperature during operation	0°C - 55°C / 32°F - 131°F
Device temperature during storage	-20°C - 60°C / -4°F - 140°F
Humidity (relative, non-condensing)	20% - 80%