

DATA SHEET

VISOTEC® Expert 900 document reading system

Machine-based checking of identity document features

Advantages at a glance

The document readers of the VISOTEC® Expert 900 series are from the 4th generation of the VISOTEC® device family.

They combine many years of experience in document verification with new, innovative functions to securely classify the identity documents to be inspected.

VISOTEC® Expert 900 document readers

The devices of the VISOTEC® Expert 900 series are document readers for machine-based checking of the features of all kinds of identity documents. Applications are:

- Workstations for manual border control
- Automated border control systems (eGate and kiosk solutions)
- Police checks on persons (stationary at police stations or mobile in vehicles and with case solutions)
- Document inspection at government agencies
- Document verification in private companies that are obliged by law to carry out identity checks (for instance, Money Laundering Act, Telecommunications Act)

Device variants

The devices of the VISOTEC® Expert 900 series are available in two variants:

- Desktop variant VISOTEC® Expert 910 for use at stationary workplace
- Built-in variant VISOTEC® Expert 905 – suitable for integration in kiosk and eGate solutions

Both device variants share the same technical basis and provide equivalent inspection results.

Features

The main advantages of VISOTEC® Expert 900 family are:

- High image quality thanks to very high camera resolution and extended focus range to better classify the documents to be inspected
- Extended optical inspections due to additional types of illumination such as oblique and coaxial light
- High processing speed due to fast image transfer times and hence short processing times

Product configuration of VISOTEC® Expert 905 (VE905) and VISOTEC® Expert 910 (VE910)

Function	VE905	VE910
18-megapixel camera	✓	✓
Illumination: VIS, IR, UV, coaxial, 10° and 45°	✓	✓
RFID reader	✓	✓
Smartcard reader (contact-based)	-*	✓
Status LED	-*	✓
Document retainer	-	Included in delivery
Protection against external light	-	Included in delivery

*Connections for external smartcard reader and status LED available.

Device views



Fig. 1: VISOTEC® Expert 910 with ambient light protection



Fig. 2: VISOTEC® Expert 910 with document retainer



Fig. 3: VISOTEC® Expert 905 as a built-in device

Technical specifications

Image capture

- High-resolution 18-megapixel camera
- Piezo focus module for infrared and white light photos, and barcode capture on smartphones
- Reflection-free image capture
- Illumination types/wavelengths:
 - Incident light
 - White light (VIS): 420 nm – 780 nm
 - Infrared (IR): 890 nm
 - UV: 365 nm
 - Coaxial light(0°)
 - White light (VIS): 420 nm – 780 nm
 - Side light (10°)
 - White light (VIS): 420 nm – 780 nm
 - Infrared (IR): 860 nm
 - Lateral light (45°)
 - White light (VIS): 420 nm – 780 nm
- True colour reproduction thanks to the use of LEDs with CRI > 95
- Captured area: 130 mm x 90 mm

Electronic reading of documents

- RFID reader (ISO 1443 – type A and type B)
- Dual antenna for chip reading at any position in document
- Data rate of up to 848 kbps
- PC/SC interface
- Certified according to BSI TR-03105 Part 4
- Contact reader according to ISO 7816 (VE910)

Interfaces/communication

- Control PC: USB type C (USB 3.2 Gen 1/5 Gbps)
- Periphery: USB type A (USB 3.2 Gen 1/5 Gbps)
- Status LED (VE 910)
- Connections for external status LED and contact reader (VE910)

Voltage supply

- Input voltage: 12 VDC
- External power supply unit: 100 – 240 VAC ± 10% (47 – 63 Hz)

Mechanical specifications

- Dimensions (L × W × H):
 - VE910 without ambient light shield: 248 mm × 175,5 mm × 123,5 mm
 - VE910 with ambient light shield: 251 mm × 184 mm × 174,5 mm
 - VE905: 215 mm × 161 mm × 107 mm
- Document glass: Corning Gorilla Glass 3
- Support for Kensington lock on the back (VE910)

Ambient conditions

- Temperature range (operation): 10 °C – 40 °C
- Temperature range (storage/transport): -25 °C – 75 °C
- Humidity: 5 – 95 % (no condensation)

Minimum requirements for control PC

- RAM: 16 GB recommended, minimum: 8 GB
- Hard drive: 200 GB recommended
- Processor: Multi-core processor with at least 8 cores (or 4 cores with hyperthreading)
- Frequency: 2 GHz minimum
- USB connection: USB type A (USB 3.2 Gen 1/5 Gbps)
- Operating system: Windows 10, (64-bit), Windows 11

Scope of delivery

- Ambient light shield (option VE910)
- Document retainer (option VE910)
- Stop bracket (VE910)
- Power supply unit and power cable
- USB cable

Revision: 14 June 2023, technical specifications according to current development status. Subject to modification without notice.