

DERMALOG

Fingerprint Scanner F 1

Small size - big solution.



Outstanding Features

- > Space-saving dimensions of 31 mm x 53 mm x 68 mm
- > Excellent quality for both wet and dry fingerprints
- > Additional Liveness Detection

Key Benefit

Due to its compact size the F1 is a solution for mobile applications or easy installation into fixed units.

DERMALOG F1 – One of the World's smallest optical Fingerprint Scanners.

A space-saving and easy to integrate fingerprint solution.

Its compliance to international standards make the F1 suitable for a wide range of biometric documents and application possibilities - capturing fingerprints for ePassports, ID Cards and verification-processes within the blink of an eye. The self-explanatory DERMALOG solution meets international standards defined for biometric workflows.



Fingerprints

The optical scanner provides a 500 dpi fingerprint image. Due to the automated fingerprint optimisation, results will be fully applicable even in poor conditions (and wet and dry fingerprints).



Liveness Detection

Highest security will be ensured by using the latest liveness detection technology. Exclusive security features detect fake fingerprints or manipulation.

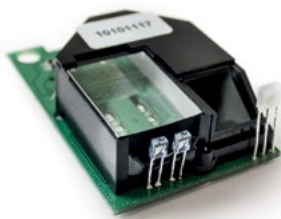


Ease of Use

The device combines usability and easy handling. The self-explanatory F1 design leads users to put a finger on the scanner in a correct way without needing assistance.

Product Features

- > Excellent quality for both wet and dry fingerprints
- > Robust against disturbing light sources
- > Space-saving dimensions of 31 mm x 53 mm x 68 mm
- > Flexible and easy integration also as OEM
- > High quality fingerprint images – no reference image required
- > Durable platen glass and a rugged scanner surface
- > Liveness detection to prevent attacks using fake fingers (optional purchase)



OEM Device

DERMALOG's F1 design offers all benefits of flexible and easy integration into OEM equipment. It enables a wide range of applications while delivering images of highest quality.



Embedded Board

The F1 can optionally be supplemented with the Embedded Board. This ensures support for fingerprint scanning with DERMALOG Fingerprint Scanners even on low performance platforms such as POS devices. The embedded board provides the necessary computing power for fingerprint capturing, coding and matching for the cost of a little increment in power consumption.



Certified Image Quality

The German Federal Office for Information Security has certified the DERMALOG F1 fingerprint scanner according to the "BSI-TR-03104" standard. Since the F1 stores fingerprint information in German ePassports. The F1 furthermore meets the criteria of AFIS Image Quality Standard PIV.

Specifications Fingerprint Scanner F1

Technical Features

Fingerprint scanning window size	25 mm x 18 mm
Optical scanning area	24.4 mm x 16.3 mm
Image resolution	480 x 320 pixels, 500 dpi
Bit Depth	8 bit, 256 gray levels
Raw fingerprint image file size	Approx. 160 kByte
WSQ compressed	Approx. 18 kByte
Interface	USB 2.0 high-speed with 1.8 meters standard USB cable
Dimensions (H x W x D)	31 mm x 53 mm x 68 mm
Weight (including USB cable)	122 g
Ingress protection	IP54
Operating temperature	-10 °C to +55 °C (14 °F to 131 °F) at a humidity of 20 - 75 % non-condensing
Storage temperature	-10 °C to +60 °C (14 °F to 140 °F) at a humidity of 10 – 90 % non-condensing
Light source	Infrared light-emitting diode (LED)
Supply voltage	+ 5 V ± 0.5 V (USB-powered)
Power consumption	230 mA
Certifications	CE, FBI-PIV, FCC Part 15 Subpart B Class A

SDK Features

NIST Quality Check	NFIQ 1.0: calculation of the NIST quality from a given image. The quality is calculated in the NRQ range from 1 (good quality) to 5 (bad quality) using the official NIST standard NFIQ 2.0: calculation of the NIST quality from a given image. The quality is calculated in the NRQ range from 100 (good quality) to 0 (bad quality) using the official NIST standard
WSQ Compression	FBI-certified
Operating Systems	Windows, Linux, Android

Head Office

DERMALOG Identification Systems GmbH
Mittelweg 120
20148 Hamburg
Germany

Berlin Office

DERMALOG Identification Systems GmbH
Kronenstrasse 1
10117 Berlin
Germany

Malaysia Office

DERMALOG AFIS Asia Sdn Bhd
8-4, 8th Floor, Bangunan Malaysia RE
No. 17, Lorong Dungun
Damansara Heights
50490 Kuala Lumpur



Philippine Branch Office

DERMALOG Identification Systems GmbH
7/F Unit B 8 Rockwell
Hidalgo Drive, Rockwell Center
Makati City 1210
Philippines

Singapore Office

DERMALOG Singapore Technical Services Pte. Ltd.
Southbank
883 North Bridge Road, #17-02
198785 Singapore



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