ievo®

**Security solutions
as individual as you are.™**

ievo ultimate™

FEATURES:

- Algorithm identification <1 second
- 1:N matching up to 10,000 fingerprint templates (50,000 option available)
- Designed for external and internal use
- IP65 rated for harsh environmental deployment
- Multispectral imaging sensor
- Data transmission AES (128bit) encrypted
- Data stored on a separate control board with template storage AES (256bit) encrypted
- Seamless integration with large number of existing access control systems
- Activated by proximity detection
- LED and audio indications
- Wiegand, clock & data and TCP/IP outputs
- Anti-tamper and vandal resistant
- Built in environmental controls; heater and humidity sensor for external use
- Spoof detection functionality can be enabled
- Approved for UK Government use by the CPNI

The **ievo** fingerprint range stemmed from years of experience and extensive research from a team of professionals who have been at the sharp end of biometric deployment, installation and integration. This wealth of knowledge has been utilised to produce a range of biometric fingerprint readers, designed for ease of installation, use and understanding. Vital feedback has been obtained from key industry installers and end users to ensure **ievo** readers work accurately, with a strong emphasis on efficiency and reliability.

The **ievo** *ultimate* was designed from the outset as a third party reader, capable of seamlessly integrating into a large number of access control systems. Boasting many unique features and benefits, the **ievo** *ultimate* uses multispectral imaging combined with an advanced world leading algorithm to keep your data accurate and secure.

Operational in a variety of harsh environments the **ievo** *ultimate* reader is the flagship fingerprint reader from **ievo**. With a standard template range of up to 10,000 fingerprints (larger capacity options are available), the ability to combat a vast majority of problem fingerprints and customisable options, the *ultimate* reader is suitable for any business in any industry.

BENEFITS

Enhanced Image Quality:
The **ievo** *ultimate* uses multispectral imaging (MSI) technology to capture a highly accurate reading of a fingerprint. Scanning both surface and subsurface levels of the skin simultaneously, up to a depth of 4mm, this method uses multiple polarised and non-polarised lights to register between 1-100 reference points to build a true digital image (the average number of reference points for a good image is 40). The MSI process allows the reader to operate through a variety of most skin or environmental conditions that may otherwise hinder an accurate reading (Fig.1).

Internal or External Use:
The **ievo** *ultimate* is a robust fingerprint reader, designed from the outset to be fully operational in harsh environments. The IP65 rating proves the reader can withstand a number of environmental hazards making it ideal for external use. The vandal resistant (IK10, in-house certified) casing of the reader makes the reader perfect for protecting access from external entry points and high security internal space. In colder environments the **ievo** *ultimate* makes use of its integral heating system which allows continued operation as low as -20°C. Offering mounting options the reader can be positioned flush or surfaced mounted both internally and externally, without having to be always encased in a protective box. The **ievo** *ultimate* does not activate any relays or controllers to open entry points, meaning that removal of a device will not expose your security protocols.

IP Rated:
The IP65 industry standard rating means that the **ievo** *ultimate* reader can endure deployment in harsh environments where water, dust and dirt are a common hazard. IP65 means the fingerprint reader is:
- Totally protected against dust ingress.
- Protected against low pressure water jets from any direction. Limited ingress permitted.

Data Protection:
ievo systems function with a separate control board which controls the **ievo** *ultimate*, meaning that no information or data is stored locally on the reader unit itself. Data captured by the MSI sensor is transmitted using AES (128bit) encryption which cannot be reverse engineered to replicate an actual fingerprint and is only accessed by the **ievo** control board for identification.

Anti-Tamper:
A 3 axis accelerometer detects attempted tampering alongside continually monitoring the data communication and voltage lines. Any tamper event is immediately transmitted to the Access Control Unit for decision / action.

Integration into Existing Systems, Including Card, Fob and Proximity:
With seamless integration being a core component to the development of the **ievo** *ultimate*, the reader has been designed to assimilate with a large number of existing systems via existing protocols. Providing the opportunity to easily upgrade to **ievo** products without having to install an entire new system. **ievo** fingerprint readers seamlessly integrate into a host of access control systems including; Paxton, Stanley, Honeywell and Nortech. For a full list of access control system providers that ievo work with please contact our sales team.

Easy to Use Interface Software:
ievo believe that integration is very important and as such offer an easy to use registration software package that can work as a standalone registration process or can be integrated into an existing software package.

Spoof Protection:
The scanning technique used by the **ievo** *ultimate's* MSI sensor helps to prevent fraudulent activity such as using fake and spoof fingerprints.

Due to capturing deep tissue data which in turn helps to mould the surface fingerprint, the sensor can differentiate between live human fingerprints as opposed to false prints made with synthetic materials. This is an optional function of the reader which can be activated via software provided, (this function is off by default).

Customise Your System:
At **ievo** we understand that security and time & attendance is vital to businesses and maintaining efficient operations. We also understand that demand and requirements change and quite often an 'off the shelf' solution may not be ideal. As such **ievo** offers a range of customisable options that can be installed up to or even after the point of order/installation. Meaning as your business grows or adapts so can your security. For more information on customisation please contact our sales team.

TECHNICAL DATA:

CPU	ARM9
Memory	RAM 128MB FLASH 128MB
FRR	< 0.001%
FAR	< 0.00001%
Identification Speed	< 0.7 sec
Template Capacity	1:N 10,000 (as standard)
Log Capacity	200,000
Voltage	12-24v AC/DC
Current Draw	600mA
Output	Customisable wiegand, clock & data and TCP/IP
Communication	TCP/IP
Controller	OEM dependent
Operating Temp.	-20~70°C (-4~158°F)
IP Rating	IP65
Power Indicator	LED
Certifications	CE, FCC, CPNI
Dimensions - Surface: W:76mm (3") H:137mm (5.4") D:93mm (3.7")	Flush: W:119mm (4.7") H:153mm (6.02") D:47mm recessed (1.85") Visible: D: 45.5mm (1.8")

SDK for integrators and software developers is available upon request, please contact us for more information.

MSI FINGERPRINT IMAGE QUALITY CONDITIONS (Fig.1)

	Dry	Wet	Dirty	Elderly	High levels of ambient light
ievo ultimate					
Other Biometric Readers			NO IMAGE		NO IMAGE

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