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.

**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

For details contact the CPNI
**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 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).

**Data Protection:**
The 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 systems 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 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:**

<table>
<thead>
<tr>
<th><strong>CPU</strong></th>
<th>ARM9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Memory</strong></td>
<td>RAM 128MB</td>
</tr>
<tr>
<td><strong>FLASH</strong></td>
<td>128MB</td>
</tr>
<tr>
<td><strong>FRR</strong></td>
<td>&lt; 0.001%</td>
</tr>
<tr>
<td><strong>FAR</strong></td>
<td>&lt; 0.00001%</td>
</tr>
<tr>
<td><strong>Identification Speed</strong></td>
<td>&lt; 0.7 sec</td>
</tr>
<tr>
<td><strong>Template Capacity</strong></td>
<td>1:N 10,000 (as standard)</td>
</tr>
<tr>
<td><strong>Log Capacity</strong></td>
<td>200,000</td>
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<tr>
<td><strong>Voltage</strong></td>
<td>12-24v AC/DC</td>
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<tr>
<td><strong>Current Draw</strong></td>
<td>600mA</td>
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<tr>
<td><strong>Output</strong></td>
<td>Customisable wiegand, clock &amp; data and TCP/IP</td>
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<tr>
<td><strong>Controller</strong></td>
<td>OEM dependent</td>
</tr>
<tr>
<td><strong>Operating Temp.</strong></td>
<td>-20<del>70°C (-4</del>158ºF)</td>
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<tr>
<td><strong>IP Rating</strong></td>
<td>IP65</td>
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<tr>
<td><strong>Power Indicator</strong></td>
<td>LED</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>CE, FCC, CPNI</td>
</tr>
</tbody>
</table>

**Dimensions - Surface:**
- W:76mm (3”)
- H:137mm (5.4”)
- D:88mm (3.7”)

**Flush:**
- W:119mm (4.7”)
- H:153mm (6.02”)
- D:47mm recessed (1.85”)
- Visible: D: 45.5mm (1.8”)

**To find out more, visit:**
www.ievoreader.com

**email us at:**
info@ievoreader.com

**or give us a call on:**
0845 643 6632