

Lumidigm V-Series

Multispectral Fingerprint Sensors



# Lumidigm V-Series fingerprint sensors perform like no other... anytime, anywhere!

Lumidigm V-Series fingerprint sensors deliver industry-leading biometric performance regardless of environmental or skin conditions. You can depend on the V-Series to return superior images on anyone, anytime, in any environment.

**Superior Performance** Lumidigm V-Series fingerprint sensors outperform other sensors by improving your application's throughput, accuracy, speed, and security. Let Lumidigm's patented technology solve your management hassles and users' frustration by delivering the high-quality images you expect...every time.

**Image is Everything** Lumidigm's multispectral imaging technology simultaneously reads the surface and subsurface to capture clear, clean images every time—even when surface features are absent or hard to distinguish due to age, dirt, finger pressure, and skin or environmental conditions. Our sensors enroll and verify every fingerprint including those that thwart conventional sensors. Solve failure to enroll (FTE) and failure to acquire (FTA) issues with Lumidigm's V-Series fingerprint sensors.

**Superior Liveness Detection** Eliminate performance problems associated with conventional fingerprint sensors. Lumidigm V-Series sensors protect against fake and spoof fingerprints by capturing detailed surface and subsurface data from the fingertip. Using the biometric industry's best liveness detection technology, we provide the most secure and accurate sensors available—over 20,000 samples tested and detected to date.

### **Benefits**

- ✓ The industry's best fingerprint images
- ✓ Meets high-performance challenges
- ✓ Designed for easy integration
- ✓ Premium liveness detection protects against fake and spoof fingerprints
- ✓ Eliminates failure to enroll (FTE) and failure to acquire (FTA) headaches
- ✓ Enables high throughput
- ✓ Requires minimal maintenance
- ✓ Yields a high return on investment for integrators and end-users

#### **Features**

- ✓ Patented multispectral imaging technique looks at and beneath the skin surface, simultaneously
- ✓ Flexible, powerful device outputs
  - Image
     Template
     Match score
- √ Compact design
- √ State-of-the-art liveness detection technology adaptable against future spoof threats
- ✓ Expansive operating range
  - -10 to 60°C, wet or dry
- √ 500 dpi

# **Lumidigm V-Series Sensors Specifications**

Imaging system	V30x/V31x	
Technology Image resolution	Patented Lumidigm optical multispectral imaging 500 dpi	
Image bit depth	8-bit, 256 grayscale	
Platen area	0.7" x 1.1" ellipse	
Biometric functions	V30x	V31x
Image out	ANSI 381 compliant	ANSI 381 compliant
Template out	ANSI 378 compliant	ANSI 378 compliant
Score or verification (1:1)	Requires ANSI 378 template input	Requires ANSI 378 template input
Identification (1:N)	n/a	Uses ANSI 378 templates as input
Liveness detection	Premium	Premium
Latent protection	Included	Included
Template storage	V30x	V31x
Verification mode	Up to 1000	Unlimited
Identification mode	n/a	Up to 10,000 users per group, unlimited groups
Biometric performance	V30x	V31x
Finger placement to image	1.3 sec. (typical)	800 ms – 1 sec (typical)
Finger placement to template / score	2.0 sec. (typical)	900 ms – 1.1 sec (typical)
Finger placement to identification	n/a	950 ms – 1.1 sec (typical)
Environmental	V30x/V31x	





Biometric performance is maintained throughout the operating ranges specified.

IP65

Ingress protection at platen

Operating with enclosure

Temperature -10 to 60°C

Humidity 0–100% RH condensing

ESD Immunity IEC 61000-4-2 Level 4+/-15 kV Air

Interface	V30x	V31x
USB 2.0	480 Mbps high-speed	480 Mbps high-speed
Operating systems supported	Windows 8 / 8 Embedded (32/64-bit) Windows 7 / 7 Embedded (32/64-bit) Windows XP / XP Embedded Windows CE Linux	Windows 8 / 8 Embedded (32/64-bit) Windows 7 / 7 Embedded (32/64-bit) Windows XP / XP Embedded
Encryption		Encrypted video for privacy /playback protection

Power supply requirements	V30x	V31x
Housing	Painted magnesium alloy, IP65 rating	
Overall dimensions	3.25"W x 4.00"D x 2.35"H (8.3 cm x 10.2 cm x 6 cm)	
Form Factor	V30x/V31x	
Encryption		Encrypted video for privacy /playback protection
	Windows CE Linux	Windows XP / XP Embedded

Supply current — operational	+5 VDC 500 mA (peak)	+5 VDC 300 mA (peak)
Supply current — idle	+5 VDC 100 mA (typical)	+5 VDC 100 mA (typical)
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Standards compliance	V30x/V31x
Interoperability	ANSI 378, ISO 19794-2:2005, ANSI 381, ISO 19794-4:2005, NFIQ compliant, MINEX-certified algorithm
Device certifications	CE, FCC Part 15 Class B, EN 60950, IEC 62471, RoHS, DEA EPCS, Certified support for thin clients

Minimum System Requirements	V30x	V31x
Interface	USB 1.1	High-speed USB 2.0 (480 Mbps)
Memory	n/a	64 MB free RAM
Operating systems	n/a	Windows 8 / 8 Embedded (32/64-bit) or Windows 7 / 7 Embedded (32/64-bit) or Windows XP / XP Embedded





V-Series Modules
The world's most reliable
fingerprint sensors



**M-Series Sensors and Modules**Fast and reliable fingerprint authentication solution

#### **Questions?**

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## **About Lumidigm**

Lumidigm is dedicated to enabling convenient, secure, and reliable identification of people, products and credentials. Our multispectral imaging technology, innovative software and biometric fingerprint sensors allow customers to know "who" or "what" to a high degree of certainty. We provide sensors and solutions for mission-critical authentication applications that require superior performance — that's the Lumidigm Advantage.