

# eyeLock®

Advanced Biometric Identity Authentication

## nano FXT®

### Innovative Iris and Face Recognition



**Convenience and security** are the two main considerations in deploying physical access control systems, biometric identification in healthcare, law enforcement, national ID and other government systems. The new EyeLock product **nano FXT®** ensures both by means of **multi-modal identity authentication**. The nano FXT uniquely supports **contactless iris and face recognition** functionality in a single unit.

By combining iris and face recognition modalities, the nano FXT® provides universality to its user base, guaranteeing reliable biometric recognition across the entire population of users. This multi-modal approach enables new use cases for clients who aim to build highly secure, flexible, and easy to deploy biometric identity management systems.

The nano FXT® uses high-resolution video-based dual-camera technology to look for the unique characteristics of the eyes and the face. As the user approaches the device, the EyeLock algorithm starts capturing multiple images, extracting biometric templates, and performing biometric recognition, until the identity is confirmed. This dramatically reduces false reject rates as compared with devices that capture only a single set of images.

The innovative imaging construction of the nano FXT provides large and configurable capture volume, without any moving parts, ensuring convenient operation for people of different heights.


At the core of the nano FXT is EyeLock's EPIC ID™ imaging module. This module is available as an embeddable USB OEM device which provides both iris and facial recognition capabilities for kiosks, vending machines, PoS and other types of equipment that require highly accurate biometric user identification.

The essential benefits of the nano FXT® are:

- **Frictionless User Experience** - all interactions with the end-user are at real-time, in motion, at a distance, with a live video preview, and they follow the user's natural behavior.
- **Universality** - multi-modality significantly increases the end-user population coverage.
- **Greater Accuracy and Increased Reliability** - multi-modality using independent biometrics reduces the rate of authentication failures, delivering high performance for all users.
- **Higher Level of Security** - multi-factor authentication (MFA) enables combining two or more authentication factors (iris, face, card, PIN) to add an additional security layer.
- **Lower Vulnerability** - difficulty to spoof the multiple biometric traits of a legitimate user.
- **Higher End-User Acceptance** - end-users are given more than one choice (it operates in iris only, facial-only and, or iris and facial fusion (simultaneously) mode).
- **Off-the-Shelf Integration with ACS** - we seamlessly integrate with any PACS (Wiegand and OSDP) and with major brands of ACS (Access Control Systems) in the market.
- **Advanced Systems** - the nano FXT captures ISO-compliant face and iris images and exposes an API allowing building systems with user-defined workflows, such as those utilizing template-on-card technology, or the systems combined with other types of face or iris devices.

# nano FXT® Specification

<b>Mechanical / Environmental</b>									
Dimensions (W x H x D)	6.17"x 7.66"x2.29" (157x195x61 mm)								
Weight	2.7 lbs. (1200 g)								
Operational temperature and humidity	+32°F to +122°F (0°C to +50°C) Relative humidity up to 90% (non-condensing)								
Wall mounting method	Follows electric 2-gangbox template								
Tripod mounting method	¼"-20 threaded								
Environmental rating	Designed for indoor use; IK04; protected against 0.5 joules impact.								
Installation height	Recommended: approximately 56" of the bottom of the unit to the floor level.								
<b>Electrical</b>									
Power input	PoE+ (IEEE 802.3at), or 12 volt/ 2.5-amp power adapter with 2.1mm ID x 5.5 mm OD barrel connector (included)								
Display	5" diagonal, high-brightness, high-resolution touchscreen								
User Interface	Self-guided with live video preview								
Indicator / illumination lighting	RGB status indicator lights White LED lights for face capture and enrollment in dark areas								
Speaker	2 Watts								
Real time clock	Internal coin battery powered								
Primary data I/O	Ethernet: IPv4, IPv6 and 802.1X networks								
Secondary data I/O	USB 2.0								
<b>Biometric Operation</b>									
Matching speed	Under 1 second								
Matching capacity	Up to 20,000 users for 1:1 or 1:N in-device matching. 1 MLN+ with on-server matching								
Biometric recognition modes	Various 1:1 and 1:N combinations of dual or single-eye iris recognition and facial recognition								
Capture time	About 1 sec in recognition mode. About 10 seconds in enrollment mode.								
Capture range	12"-33" (30 - 85 cm). Maximum capture distance is configurable.								
Capture angle	29V x 22H degrees for iris capture 76V x 40H degrees for face capture								
Iris capture enrollment quality	Meets or exceeds ISO29794-6 image quality requirements								
Face image enrollment quality	Meets or exceeds ISO29794-5 image quality requirements								
Liveness checking	Proprietary, utilizing different hardware characteristics of the device								
<b>Access Control Operations</b>									
Access control modes	<table border="0"> <tr> <td>1. Biometrics only</td> <td>5. Portable template (template on card)</td> </tr> <tr> <td>2. Dual-factor with card scanning</td> <td>6. Biometric enrollment on card swipe</td> </tr> <tr> <td>3. Dual-factor with PIN</td> <td></td> </tr> <tr> <td>4. Triple-factor with Biometric, card and PIN</td> <td></td> </tr> </table>	1. Biometrics only	5. Portable template (template on card)	2. Dual-factor with card scanning	6. Biometric enrollment on card swipe	3. Dual-factor with PIN		4. Triple-factor with Biometric, card and PIN	
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2. Dual-factor with card scanning	6. Biometric enrollment on card swipe								
3. Dual-factor with PIN									
4. Triple-factor with Biometric, card and PIN									
Supported protocols	Wiegand (up to 200 bits), OSDP, F2F, PAC								
Integrated card reader	13.56MHz, 125kHz and Bluetooth. Internal card reader is optional.								
Supported card types via integrated card reader	HID iCLASS Seos®, iCLASS SE®, iCLASS®, MIFARE® Classic, MIFARE DESFire® 0.6/EV1, Indala Prox, and HID Prox								
External card reader support	Wiegand or OSDP. 5-volt 200 mA and 12-volt 200 mA power output provided.								
Access control signals output	Wiegand, OSDP, F2F and Stanley PAC								
Tamper signal	Software and electric, triggered upon removal of the device from the wall								
Door relay	30V DC/ AC, 2A (60W) resistive								
Access control False Acceptance Rate setting	1:1.5 MLN (single eye)								

Software APIs	
Device SDK	Web REST API supporting full device management, database synchronization, in-device or on-server biometric processing, firmware upgrades.
Cybersecurity provisions	<ul style="list-style-type: none"> <li>- AES256 data encryption at rest and in motion</li> <li>- Locked-down TCPI/IP ports and logins</li> <li>- Secure execution processor</li> <li>- Device encryption certificate management</li> <li>- Secure Open Supervised Device Protocol (OSDP) for access control applications</li> </ul>
Personal privacy provisions	<ul style="list-style-type: none"> <li>- Limited capture range prevents surveillance uses: users have to cooperatively look at the device to be processed.</li> <li>- Data encryption.</li> <li>- Iris-only mode without using facial recognition technology.</li> <li>- Ability to enroll only the proprietary biometric templates without retaining actual images.</li> <li>- Permanent biometric and event log record deletion.</li> <li>- Configurable event logging levels and log expiration as per organization's data retention policies.</li> </ul>
Off-the-shelf integrations	<p>Fully integrated with <b>EyeLock Identity Suite (EIS)</b> identity management software server platform which ensures interoperability with other EyeLock indoor and outdoor biometric recognition cameras. The EIS provides nano FXT® device configuration, database synchronization and firmware updates. The EIS integrates with major brands of Access Control Systems:</p> 
<b>Certifications/ Compliance</b>	FCC Part 15 Class B, CE, IEC 64271/ CENELEC EN 62471 eye safety per "exempt" class with no labeling required. Pending: UL-294, CAN, ULC 60839-11-1, IEC 60839-11-1, IEC 60950-1, IEC 62368-1.
Model Numbers	
Without card reader	<b>NFXT</b>
With built-in card reader	<b>NFXTR</b>
<i>Specifications are preliminary and subject to change.</i>	

Additional product information




**DESIGNED AND ASSEMBLED IN THE USA**

