

X-bio Access Control System ACS-100S/E



Specifications

PROCESSOR UNIT	
Processor	32-bit Microprocessor
Fingerprint Sensor	Type: Semiconductor sensor, capacitive field detection Active sensor area: 18mm x 12.8mm Resolution: 360 x 256 pixels, 508DPI
Enrollment time	< 1.0 seconds (single finger placement)
Identification time	< 2.2 seconds (for 100 templates) typical
Verification time	< 1.1 seconds
False Acceptance Rate (FAR)	< 0.0001 %
False Rejection Rate (FRR)	< 1 %
Number of fingerprint templates	424 max for ACS-100S, 872 max for ACS-100E
Access records	5455 max for ACS-100S, 10911 max for ACS-100E
Operating voltage	12V nominal, 8V min, 18V max
Operating temperature	0 ~ 55 °C (32 ~ 131 °F)
Communication	RS-232, RS-485, LAN (optional)
Real-time clock back-up battery	8 hours minimum
Dimensions	H = 133mm (5.20in), W=140mm (5.47in), D=53mm (2.07in)
Weight	308g (0.68lb)
CONTROLLER UNIT (Interface to Processor Unit with secure data interface)	
Controller Input/Output	4 TTL-compatible inputs of which: 2 x Output relays, normal open/normal close selection, 30Vdc, 2A 2 x Open collector outputs, 30Vdc, 300mA, 150mW max.
Dimensions	H = 100mm (3.91in), W = 140mm (5.47in), D = 27mm (1.06in)
Weight	155g (0.341lb)

Tested and Proven

CSP fingerprint algorithm was tested and proven in the Fingerprint Verification Competition (FVC2000). CSP is the only participant to clinch top three in speed and accuracy. The FVC2000 report acclaimed, "CSP exhibited a good tradeoff between accuracy and efficiency".

Fast & Accurate

X-bio ACS-100S/E Access Control System fingerprint algorithm, adaptive direct grey scale minutiae extraction, is an advanced minutiae detection technique with small template size. The algorithm is optimized for used with optical and CMOS sensors, capable of sensing a fingerprint image in less than half a second with infallible accuracy. The system algorithm automatically adjusts the settings of the CMOS sensor to suit individual fingerprint condition (normal, dry or wet skin). An advanced dynamic threshold technique is integrated to optimize the matching result to support both Identification (1:N) and Verification (1:1) Modes for diverse fingerprint quality.

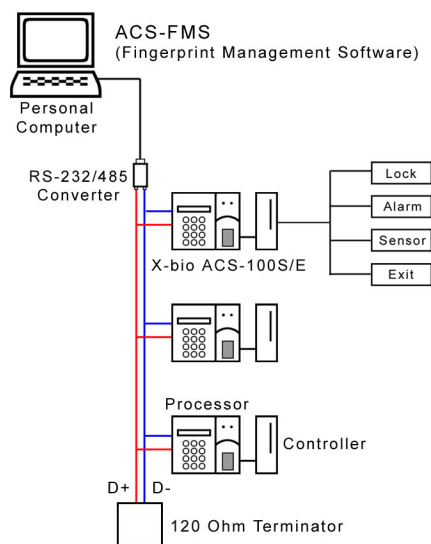
Convenient & Secure

X-bio ACS-100S/E pioneers the Fingerprint Access Control System that offers identification access with no pin or card. The system matching algorithm, OmniCheck™ algorithm, is rotation and translation invariant and is able to withstand moderate amount of deformation. With the ability of matching partial fingerprint with no core (center of the fingerprint pattern) or the delta point, false rejection is reduced, The system is able to authenticate a person in less than 2.2 seconds in identification mode for not more than 100 users. Advanced plastic technology is used for packaging to withstand vandalism.

Affordable

With efficient fingerprint algorithm and optimal system design, ACS-100S/E, is truly the most user friendly, convenient, secure and affordable fingerprint Access Control System.

Network Diagram



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