

# AY-B85x0

Indoor Networked Optical Fingerprint 1:N Reader  
7,000 Templates with RFID Card Reader



13.56 MHz MIFARE or 125 kHz  
EM Contactless Credentials



7000 Fingerprint  
Templates



AY-B85x0  
Fingerprint Reader

The AY-B85x0 is a high-quality fingerprint & card reader for indoor applications, which is ideal for any project by providing excellent performance while remaining cost-effective. With a capacity of 7000 fingerprint templates and a built-in 13.56 MHz MIFARE or 125 kHz (EM) credential reader, it enables higher security by dual factor authentication (Fingerprint + Card). When used with the AxTraxNG™ Server with integrated template management and distribution module, fingerprint template enrollment can be done concurrently on multiple workstations. Rosslare's standalone RosslareBio 8000 management software is perfect for interfacing with existing third-party systems.

## GENERAL DESCRIPTION

The AY-B85x0 fingerprint and MIFARE (13.56 MHz) or EM (125 kHz) card reader, features a 500-DPI optical sensor, with built-in memory for 7000 FP templates. With TCP/IP, RS-485, and Wiegand 26-Bit connectivity, the AY-B85x0 can be used with any Wiegand supported access control system.

This indoor reader features a scratch-resistant FP surface capable of reading both wet and dry fingers, while the high-speed CPU can scan a 1:7000 list in less than 1 second. Each template is assigned a biometric User ID by the controller. When a fingerprint is read and the biometric features are verified as valid, the ID is sent in Wiegand 26-Bit format. The reader does not process the access rights, as this is done on the host controller.

Templates and reader settings are managed by TCP/IP connection to the AY-B85x0 using the AxTraxNG™ integrated biometrics features. Alternatively, the RosslareBio 8000 standalone management software for Windows OS interfaces with third-party systems.

## MAIN FEATURES

- Small compact design, for indoor use
- Capacity for 7000 templates 1:7000 with high speed CPU (search time is less than 1 s)
- Combined RFID card and fingerprint for higher security with dual factor applications
- Built-in TCP/IP, RS-485, and Wiegand connectivity
- 50,000 non-volatile event log
- Wide thermal operating range (-20°C to 60°C)
- Built-in buzzer and LED indication
- Modern design that blends into almost any architectural challenge.

## SOFTWARE SOLUTIONS

- **AxTraxNG:** Easy to install and operate using Rosslare AxTraxNG™ Server for Windows for managing user data and template distribution
- **RosslareBio 8000 Management Software:** Standalone management software that supports 8000 biometric reader series for user enrollment, reports, and more and allows third-party interfacing.

# SPECIFICATIONS

## FINGERPRINT IMAGING SYSTEM

■ Technology	Optical (sealed optical chamber, scratch-resistant glass, wet or dry finger)
■ Image Resolution	500 DPI
■ Scan Area	22 x 18 mm (0.9 x 0.7 in.)

## TEMPLATE CAPACITY & SPEED

■ Capacity	Up to 7000 biometric templates on reader
■ Time 1: N	< 1 s

## CONTACTLESS CARD TECHNOLOGY

■ RFID	Built-In 13.56 MHz MIFARE or 125 kHz EM credential reader
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## ENVIRONMENTAL RANGE

■ Environment	Indoor installation
■ Temperature	-20° to 60°C (-4°F to 140°F)
■ Humidity	Up to 90% RH

## COMMUNICATON & PERFORMANCE

■ CPU	32-bit ARM core
■ Communication Ports	Wiegand 26-Bit, RS-485, TCP/IP (10/100 Mbps), mini-USB 2.0
■ Authentication	Fingerprint Only, Fingerprint + Card, Card Only

## PHYSICAL CHARACTERISTICS

■ Dimensions (L*W*H)	145 x 55 x 37 mm (5.7 x 2.2 x 1.5 in.)
■ Net Weight	400 g (14.1 oz)

## POWER SUPPLY REQUIREMENTS

■ Power	+12 VDC regulated power supply
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## STANDARDS COMPLIANCE

■ Device Certifications	CE & FCC
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## ORDER MODELS

AY-B8520 – With 125 kHz EM RFID card reader  
AY-B8550 – With 13.56 MHz MIFARE card reader

## ABOUT ROSSLARE SECURITY

Rosslare Security Products manufactures and markets high-quality security products via its worldwide offices and channel partners. Since 1980, Rosslare has offered high-quality systems for enterprise, small business, and residential applications. With Rosslare, you receive the best of all worlds: world-class product engineering and design; professional customer service spanning the globe; and the quality and affordability of a vertically integrated and self-owned manufacturing facility. Our expansive product range features much more than access control solutions and guard patrol management systems; we also offer applications software – such as License Plate Recognition, Time & Attendance, and DVR/alarm integration.

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