Data Bulletin

XB5S Harmony™ Biometric Switch
Frequently Asked Questions

Retain for future use.

Introduction

The XB5S Harmony Biometric Switch is a digital fingerprint solution used to strictly control access to equipment, machines, and systems. This data bulletin answers some frequently asked questions about Schneider Electric's innovative biometric switch.

Figure 1:   Harmony Biometric Switch

Frequently Asked Questions

What is the voltage requirement for the Harmony Biometric Switch?

The voltage limit is 20–30 Vdc, but the preferred voltage is 24 Vdc.

What load can the Harmony Biometric Switch handle?

The Harmony biometric switch can support a maximum output load of 200 mA.

Is the Harmony Biometric Switch UL listed?

Yes, the Harmony biometric switch is UL508 certified. It is also CE marked and has CSA certifications for Canada and USA (to UL508 requirements).

What is the difference between *monostable* and *bistable*?

Monostable refers to the momentary action, or pulse, of the biometric switch each time a fingerprint is recognized. *Bistable* refers to the maintained operation of the biometric switch: the switch remains on until a recognized fingerprint deactivates it.

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What is the duration of the monostable (momentary) pulse?

The duration of the monostable pulse is 0.5 seconds.

How do I delete a single fingerprint record (of either an operator or an administrator)?

The procedure to delete a fingerprint record is described in data bulletin 9001DB1001. The procedure requires the participation of the user being deleted. If the user is not available, you must delete the complete database of operators and administrators from the biometric switch, then re-register the current users.

Is the Harmony Biometric Switch suitable for use outdoors?

Yes, the Harmony biometric switch is built for outdoor use and meets NEMA 1, 2, 3, 3R, and 12 standards.

Always protect the biometric switch from direct sunlight and heavy rain. If the sensor of the CCD camera detects too much light, the camera will become saturated and unable to read the fingerprint. The UV exposure rating follows ISO 4892-1 and 2–500 hours (irradiance = 0.5 W / m² / nm to 340 nm). For additional protection from heavy rain, direct sunlight, and vandalism, Schneider Electric recommends the use of a protective cover (part number ZB5SZ70) and a stainless steel guard (part number ZB5SZ72).

Is the Harmony Biometric Switch a plug-n-play device?

Yes. The Harmony biometric switch is a stand-alone device and is not dependent on any type of interface or controller.

What is the maximum number of fingerprints the Harmony Biometric Switch can hold?

The Harmony biometric switch can remember up to 200 fingerprints—including different fingerprints from the same operator or administrator.

How is the Harmony Biometric Switch mounted?

The Harmony biometric switch can be mounted in a standard hole for a 22 mm push button. It can be connected with simple wires or an M12 connector.

What is the life expectancy of the Harmony Biometric Switch?

The LEDs in the Harmony biometric switch have a life expectancy of 100,000 hours. The CCD Camera that reads the fingerprints has a life expectancy of 5 years. Product life will vary with application and operating environment.

What is the warranty on the Harmony Biometric Switch?

Schneider Electric provides the standard Conditions of Sale warranty for the Harmony biometric switch.

What happens if the Harmony Biometric Switch loses power?

If the Harmony biometric switch is powered on when a power loss occurs, it shuts down, then returns to the On state once the power returns. If the biometric switch is not on when the power loss occurs, then no change in state occurs.

Is there a way to identify whose fingerprints are loaded into the Harmony Biometric Switch?

No, the Harmony biometric switch does not have a method for downloading any personal information—thus maintaining complete privacy.

Does the Harmony Biometric Switch have different levels of authorization?

No, all operators and administrators of the Harmony biometric switch have the same level of authorization.

If the only administrator is away or no longer with the company, how can a user be added or deleted from the Harmony Biometric Switch?

Schneider Electric recommends assigning more than one administrator. If no administrator is available, you must perform a global reset of the switch. Contact Schneider Electric for help with adding or removing users from the Harmony biometric switch. Be prepared to provide the part number and serial number on the biometric switch to the representative, who can also advise you on how to set the device back to the initial operating condition.

What happens if I become distracted or lose track while performing an operation on the Harmony Biometric Switch?

Wait for 30 seconds and the Harmony biometric switch will return to its previous operation.

When an administrator selects a function, must this fingerprint be recognized by the Harmony Biometric Switch's blue flashing LEDs?

No, any finger can select the blue flashing LEDs on the biometric switch. Schneider Electric recommends that the user place (not push) the finger on the blue flashing LED and wait until the next function is selected.

When will the Harmony Biometric Switch be available in the U.S.?

The Harmony biometric switch will be available for use in the U.S. early 2010 (first quarter).

What are appropriate uses of the Harmony Biometric Switch?

The Harmony biometric switch can be used wherever restricted access is required, for example:

- The operation or switching of machinery to maintenance mode
- A reset following activation of an emergency stop
- A PLC for setting up parameters or downloading data
- Access to machines for setup
- The operation of restricted items, such as a garage door
- Fenced or guarded machinery
- An interior room
- Key operated selector switches
- Replacement access badges, codes, and passwords
- Vehicle ignition systems

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.