

CASI - Bioscrypt V-Flex™ Interface Installation Manual



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Regulatory



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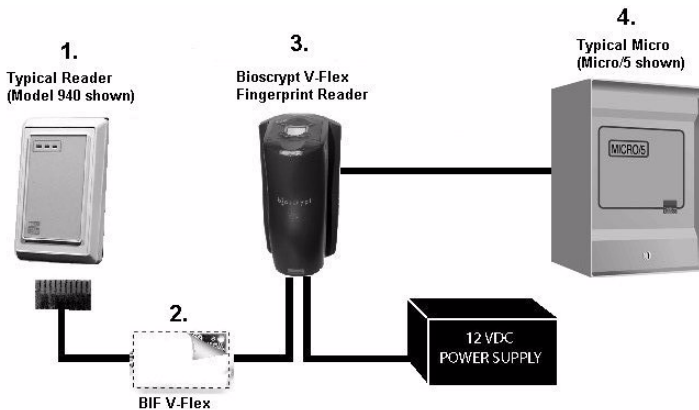
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Introduction

The GE/Bioscrypt V-Flex™ Interface (BIF V-Flex) board features a 12-to-5 VDC data signal converter required to connect a Bioscrypt V-Flex biometric fingerprint reader to the Wiegand 4001-configured GE Proximity Perfect readers. By combining a GE Proximity Perfect reader and BIF V-Flex board with the fingerprint reader, organizations can quickly implement two-factor (credential and fingerprint) security to any location.

This added security maximizes employee protection, and ensures access is only granted after a proximity credential and fingerprint are both approved by the reader and GE access control system.

Figure 1. Product overview



1. Employee presents badge. Badge ID (BID) is sent to the BIF V-Flex, using 12 VDC signals.
2. Badge ID (BID) is sent from the BIF V-Flex to Bioscrypt V-Flex using 5 VDC signals.
3. Employee presents fingerprint. Badge ID (BID) sent to Micro using Wiegand protocol.

Safety

Electrostatic discharge (ESD) precaution



WARNING: Circuit board components are vulnerable to damage by electrostatic discharge (ESD). ESD can cause immediate or subtle damage to sensitive electronic parts. An electrostatic charge can build up on the human body and then discharge when you touch a board. A discharge can be produced when walking across a carpet and touching a board, for example. Before handling any board, make sure you dissipate your body's charge by touching ground. This discharges any static electricity build-up.

Product features

The CASI-Bioscrypt V-Flex Interface is designed to provide the following function:

- Provides required 12-to-5 VDC data signal conversion when connecting a Proximity Perfect[™] Reader to a Bioscrypt V-Flex biometric fingerprint reader.

System requirements

For UL compliant installation notes, refer to *“UL Listed Installations” on page 12.*

Software	Bioscrypt VeriAdmin™ software version 5.3 or later
Reader	Bioscrypt V-Flex fingerprint reader with firmware 7.3 or later
Wiegand Data Formats	12 VDC GE Proximity Readers configured for Wiegand 4001 mode

Technical specifications

For UL compliant installation notes, refer to *"UL" on page 12*.

Operating temperature range	-31 F (-35 C) to +151 F (+66 C)
Relative humidity	5% to 95% (non-condensing)
Physical dimensions (HxWxD)	1.74" (44.20 mm) x 1.25" (31.75 mm) x 0.77" (19.56 mm)
Index of protection	IP00
Power supply	1.0 A @ 12 VDC minimum (linear power supply recommended) Note: Power supply sources power for three devices: Proximity Reader, BIF V-Flex and Bioscrypt V-Flex
Power consumption	25 mA @ 12 VDC (no reader attached)
Reader Compatibility	All 12 VDC Proximity readers with 40-bit Wiegand output (GE 4001)
Maximum cabling distance	
BIF V-Flex to Proximity Reader:	50 ft (15.24 m)
BIF V-Flex to Bioscrypt V-Flex:	50 ft (15.24 m)
Agency approvals	FCC Class A
	CE
	UL 294

Parts list

- BIF V-Flex Interface board
- Installation Manual
- Wiegand 4001 Output reader configuration card.

Refer to the GE product catalog for part numbers and ordering information.

Installation overview

The following is the general sequence of steps to follow when installing the BIF V-Flex board. Refer to the sections that follow for further detail:

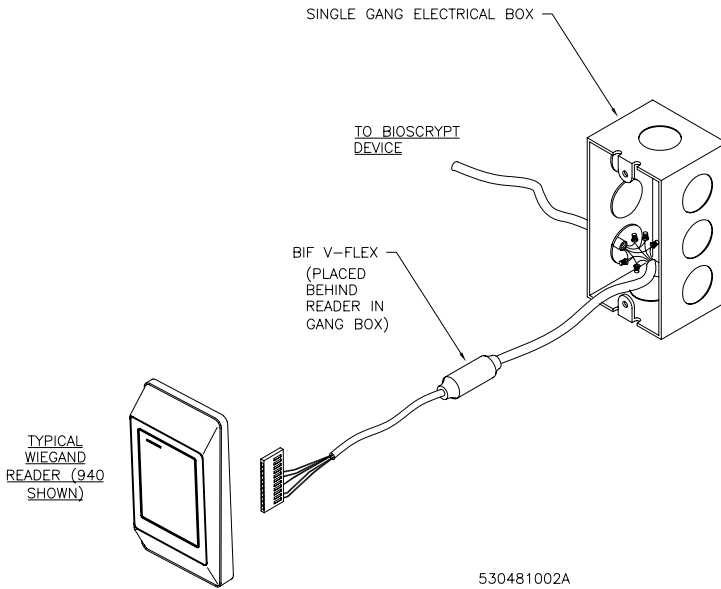
1. Mount the BIF V-Flex behind the proximity reader. If applicable, remove the proximity reader from the wall and disconnect power and data connections. See [Mounting the the BIF V-Flex](#) on page 7.
2. If necessary, configure the reader for Wiegand 40-bit (4001) output. See [“Configuring the reader” on page 8](#).
3. Connect the BIF V-Flex board between the GE Proximity reader and Bioscrypt V-Flex fingerprint reader. See [Connecting the BIF V-Flex](#) on page 9.
4. Connect the Bioscrypt V-Flex reader to the Micro/5 or M5PXNplus controller.

Note: Please reference the wiring diagrams received with your Bioscrypt V-Flex reader for connections to the Micro controller.

5. Connect the power supply.
6. Test and troubleshoot. See [Testing the BIF V-Flex](#) on page 11.

Mounting the the BIF V-Flex

Figure 2. Typical Mounting Configuration



Configuring the reader

Most readers require no further configuraton, however, Model 940 readers manufactured after December 2003, require the use of a setup card to enable Wiegand 40-bit (4001) communication. Refer to your reader manual to determine if your reader requires setup.

If your reader requires the use of a setup card to enable Wiegand 4001 output, follow the steps below.

To enable Wiegand 4001 data output:

1. Select the card (provided) labeled **Wiegand 4001 Output**.
2. Present the card to the reader.

The red LED will flash twice and the beeper will emit two short beeps.

To re-enable F/2F data output:

1. Select the card (provided) labeled **Wiegand 4001 Output**.
2. Present the card to the reader.

The yellow LED will flash three times and the beeper will emit three short beeps.

Connecting the BIF V-Flex

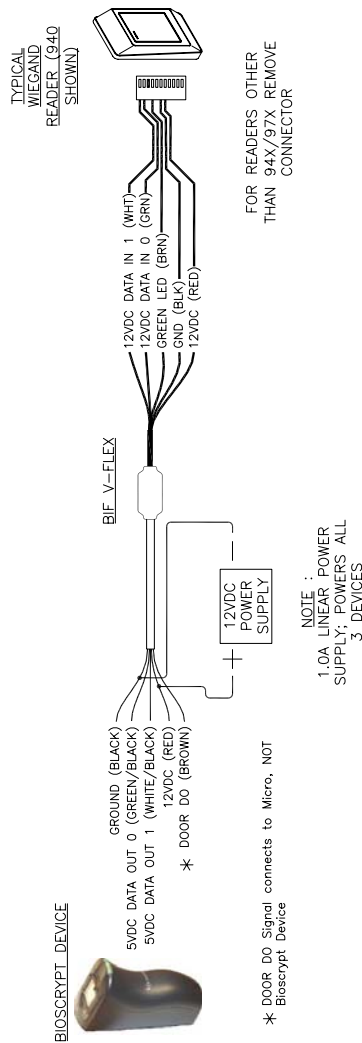
Connect the BIF V-Flex board between the GE Proximity reader and Bioscrypt V-Flex fingerprint reader for data signal conversion, during badge identification (BID) communications. When users present their cards to the GE Proximity reader, the card transmits the BID information through the BIF V-Flex board to the Bioscrypt V-Flex fingerprint reader. The Bioscrypt V-Flex reader then prompts the user to present their finger, and upon approval sends the BID data to the Micro/5-PX, Micro/5-PXN, or M5PXNplus. The GE access control system then grants or denies access to the secure location.

Pinouts

- If you are connecting to a GE Model 94x/97x Proximity Reader, use the 11-pin connector that is provided.
- If you are connecting to any other compatible proximity reader, remove the connector and make the connections as required.

Wiring Diagrams

Figure 3. BIF V-Flex Wiring Diagram



Testing the BIF V-Flex

1. Verify that the connections between the GE reader, the BIF V-Flex, the Bioscrypt V-Flex Fingerprint reader, and the micro are properly wired.
See Figure 3, “BIF V-Flex Wiring Diagram,” on page 10.
2. A local power supply must supply power for the GE reader, the BIF V-Flex, and the Bioscrypt fingerprint reader.
See Figure 1, “Product overview,” on page 1.
3. A common ground must be used for all three units: GE reader, BIF V-Flex, and Bioscrypt fingerprint reader.
See Figure 3, “BIF V-Flex Wiring Diagram,” on page 10.
4. If no data is being sent from the GE reader to the Bioscrypt fingerprint reader, the **Data In** and **Data Out** lines may be reversed. Verify that the **Data In** line is connected to the GE reader and the **Data Out** line is connected to the the Bioscrypt fingerprint reader.
See Figure 3, “BIF V-Flex Wiring Diagram,” on page 10.

Regulatory approvals

UL



UL Listed Installations

The following are the results of the UL evaluation of the BIF V-Flex:

- Operating Temperature Range: +32 F (+0 C) to +120 F (+49 C)
- Relative Humidity: 85%

CE



Manufacturers
Declaration of Conformity
For



Product Identification: 430188001
Model/type: BIF V-Flex


BOM revision level:A

Category (description): Interface Unit
Brand: GE Security
Manufacturer: GE Security
Suite 100
791 Park of Commerce Blvd.
Boca Raton, Florida 33487
USA

EU Representative: GE Security B.V.
Kelvinstraat 7
6003 DH Weert
The Netherlands

Concerning	R&TTE		
	EMC	Safety	Radio
A sample of the product has been tested by:	PSE 12955 Bellamy Brothers Blvd. Dade City, FL 33525		PSE 12955 Bellamy Brothers Blvd. Dade City, FL 33525
Test report reference	03F247I		03F247C
Applied standards	EN50130-4(1998)		EN55022: 1998

Equipment class identifier (RF products falling under the scope of R&TTE)

☒ Not Applicable ☐ None (class 1 product) ☐  (class 2 product)

Means of Conformity:

We declare under our sole responsibility that this product is in conformity with Directive 93/68/EEC (Marking) and/or complies with the essential requirements and all other relevant provisions of the 1999/5/EC (R&TTE) based on test results using harmonized standards in accordance with the Directives mentioned.

Notes

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