inBio 460
IP-Based Biometric Door Access Control Panel

Truly Internal Biometric Identification:
InBio carries out the matching of fingerprints on the panels. The FR Series of readers transmit fingerprint templates to InBio via RS-485 for fast and accurate matching with templates stored in data-base. Wiegand inputs are also provided for traditional RFID readers.

Communication:
InBio controllers install easily on your network and support both TCP/IP and RS-485 communication. Auto-discovery tool allows setting and modification of network parameters directly and easily.

Lowest Total Cost of Ownership:
InBio controller firmware can be upgraded in the field. New controller features can be loaded without any advanced tools, extending and expanding the value of your investment.

Capacity:
Stores up to 3,000 fingerprint templates, 30,000 card users, and up to 100,000 events and transactions. Controller is backed up in real-time in on-board SD card. Data is preserved if power is lost. InBio continues to opperate if network conection is interrupted.

Door Control and More:
Along with relay contacts for controlling door locks, easily programmable auxilary relays can be used for additional control and interface to lights, alarms, annunciators, intrusion detection panels, or even extra locking devices or gate controllers.

Options:
InBio controllers come in three sizes to suit project needs and reduce the cost of unused capacity. 1-door, 2-door, and 4-door models can be mixed and matched in an optimized system architecture.

Advanced Access Control Built-In:
Anti-Passback, First-Card Opening, Multi-Card Opening, Duress Password Entry, and Auxilary Input/Output Linkages are built into controller firmware.

For Software Developers:
Free SDK is available for integrators and OEM's to integrate the InBio controllers with their or existing security or personnel management applications. Upon request, ZK can also customize InBio firmware to meet any custom requirements.
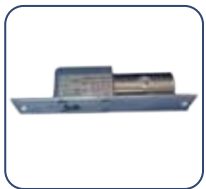
Optional Accessories

FR1200

ZK4000

RFID Reader

K1-1

Power Supply

SD Card

Electric Lock

RS232/485 Converter

Alarm

POE

Discs

Prox Card

Key Fob

Specifications

Capacity
- Users: 30,000
- Event Buffer: 100,000 transactions

CPU
- 32bit 400MHz CPU

RAM
- 32M

Flash Memory
- 128M

Communication
- TCP/IP
- RS485

Weigand Reader Port
- 2 each
  - 26/34bit Wiegand
  - 4/8bit burst for PIN

Input Ports
- Door Sensor - 4
- Auxillary Input - 4
- Request to enter - 4

Output Port
- 4 FORM-C Relay Output-
  SPDT 5A@36V DC or 8A@30V AC
- 4 Aux FORM-C Relay Output-
  SPDT 2A@30V DC

Baud Rate for RS485
- 9600-38400 baud

LED Indicators
- LED's for communication, power, activity, status and valid card read

Power
- Power Supply: 9.6V-14.4V DC, 1.5A

Environment
- Operating Temp: 32-113 ℉ (0-45 ℃)
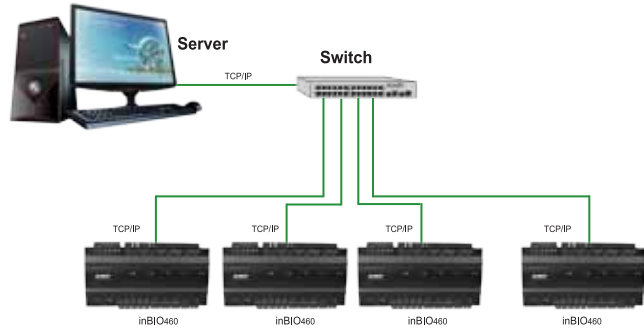- Operating Humidity: 20% to 80%

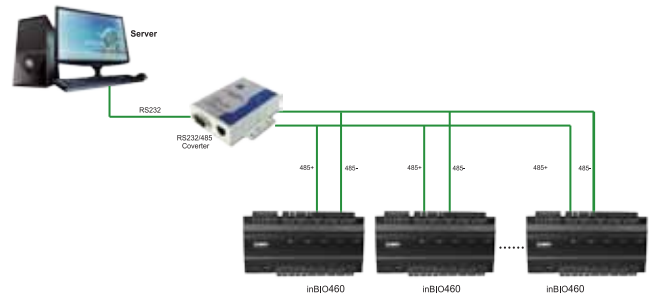**Dimensions**
- Length: 10" (226 mm)
- Width: 6.6" (106 mm)

Packaging
- Dimensions: 15in x 3in x 11in
  (380mm x 80mm x 280mm)
- Weight: 7.4 lbs (3.35 kgs.)

Typical Installation

Legend:
- BS485
- TCP/IP
- Relay Output
- Digital Input

Server — Switch

Aux. Digital Input

Aux. Relay Output

FR1030 — Door — FR1200 — FR1200 — Door — FR1200 — FR1200 — Door — FR1200 — FR1200 — Door — FR1200

Schematic

Left side		Right side
SD Card Slot		
LINK		AUX1 IN / GND — Auxiliary Input1 D
Ethernet Interface	LAN	AUX2 IN / GND — Auxiliary Input2 D
ACT		AUX3 IN / GND — Auxiliary Input3 D
DIP Switch	SWITCH	AUX4 IN / GND — Auxiliary Input4 D
		EXT +12V / GND / 485- / 485+ — EXT RS485 E
PC RS485 Interface { 485+ / 485- / SGND } PC		STATE PWR / RUN / ACT / GND — State Indicator
D Auxiliary Output1 { NO / COM / NC } AUXOUT1		BUTTON1 IN / GND — #1 Door Exit Button D
D Auxiliary Output2 { NO / COM / NC } AUXOUT2		READER1 BEEP / GLED / WD1 / WD0 / GND / +12V — #1 Door Wiegand Reader B
D Auxiliary Output3 { NO / COM / NC } AUXOUT3		BUTTON2 IN / GND — #2 Door Exit Button D
D Auxiliary Output4 { NO / COM / NC } AUXOUT4		READER2 BEEP / GLED / WD1 / WD0 / GND / +12V — #2 Door Wiegand Reader B
C #1 Door { SEN / GND / NO / COM / NC } LOCK1		BUTTON3 IN / GND — #3 Door Exit Button D
C #2 Door { SEN / GND / NO / COM / NC } LOCK2		READER3 BEEP / GLED / WD1 / WD0 / GND / +12V — #3 Door Wiegand Reader B
C #3 Door { SEN / GND / NO / COM / NC } LOCK3		BUTTON4 IN / GND — #4 Door Exit Button D
C #4 Door { SEN / GND / NO / COM / NC } LOCK4		READER4 BEEP / GLED / WD1 / WD0 / GND / +12V — #4 Door Wiegand Reader B
A Lock Power { V+ / V- } LOCK		
A Power of Control Panel { +12V / GND } POWER		

Center labels: EXT RS485, PC RS485, GND, RUN, POWER

Advanced Access Control

inBIO

TCP/IP Configuration   RS485 Configuration

MODEL NUMBER	inBio 160	inBio 260	inBio 460
Number of doors controlled	One door	Two Door	Four Door
Number of card readers supported	2 26-bit Wiegand, others upon request	4 26-bit Wiegand, others upon request	4 26-bit Wiegand, others upon request
Number of Inputs	2 (Exit Device and Door Status)	6 (2 Exit Device, 2 Door Status, 2 AUX)	12 (4 Exit Device, 4 Door Status, 4 AUX)
Number of Outputs	2 (One Form C relay for lock and one Form C relay for Aux output)	4 (2- Form C relay for lock and 2- Form C relay for Aux output)	8 (4- Form C relay for lock and 4- Form C relay for Aux output)
Card Holders Capacity	30,000	30,000	30,000
Fingerprint Capacity	3,000	3,000	3,000
Log/Events Capacity	100,000	100,000	100,000
Weight	7.4lbs (3.35kg)	7.5lbs (3.4kg)	7.8lbs (3.55kg)
Communication	TCP/IP and RS-485	TCP/IP and RS-485	TCP/IP and RS-485
Dimensions	185mm(L) X 106mm(W) X 36mm(D)	185mm(L) X 106mm(W) X 36mm(D)	226mm(L) X 106mm(W) X 36mm(D)
Enclosure	ABS Plastic	ABS Plastic	ABS Plastic
Mounting	Wall Mount	Wall Mount	Wall Mount
Recommended Power Supply	12V DC, 1.5A	12V DC, 1.5A	12V DC, 1.5A