



***YOU ARE THE KEY!***



**BACS™**



# World's First

## 100% Touchless Biometric Reader Solution

CrucialTrak's BACS™ is the world's first 100% touchless multi-biometric authentication solution. Its sleek and innovative design offers up to four biometric technologies: fingerprint, face, iris and palm vein in a single device.

BACS™ provides an ideal access control environment while satisfying the need for security and convenience. By allowing the security level to be adjusted to meet the needs of the client, the multimodal authentication technology can offer a practical and efficient management system.

The BACS™ motion-free image detection technology reduces processing time and accurately recognizes biometric information, without contact, in a matter of seconds.

**You Are The Key!**

# Versatility

BACS™ can be applied everywhere

## Commercial

Provides convenient and efficient access to a secure office environment.



## Education

Provides a full range of effective access options for increased security in the education market.



## Residential

Provides a convenient and functional alternative for home security.



## Financial

Ideal for the high level of security required to protect assets in the financial market.



## Healthcare

Provides hygienic, touchless access control to the healthcare industry.



## Government

Provides a heightened level of security to ensure safe entry to sensitive and restricted areas.





CrucialTrak is a designer and manufacturer of the world's first 100% touchless, 4-in-1 multi-biometric access control system.



## BACS™ Biometric Readers

Access Control Solution

BACS™Quattro  
BACS™Duo  
BACS™Duo-M  
BACS™ Duo-S  
BACS™Solo Palm

Industrial Automation Solution

BACS™Tube  
BACS™Duo

Door Solution

BACS™Suite

## BACS™ Biometric Enrollment

BACS™EnrollStation e4

## SpeedTrak™ Speed Gates

Slim Swing  
RoboArm

# Biometric Access Control Solution

BACS™ access control solution increases security and provides flexible management & control of the workplace for employees and visitors.

- Manage multiple user groups and access levels
- Visitor management through mobile app
- Remote terminal and data control
- Individual door and gate control
- The 100% touchless access control solution helps you avoid hygiene issues that can occur when there are large numbers of users
- Integrate with alarm/fire system



BACS™ Biometric Readers



## BACS™ Quattro

- Multi-Biometric - 4 types (face, iris, palm vein, fingerprint)
- Simultaneous authentication of up to four biometric modalities
- 100% touchless authentication
- Simple integration with an array of systems via various interfaces
- Supports both stand-alone and system-linked
- Logging for up to 1,000,000 events



Memory / Storage	8GB / 64GB, 128GB, 256GB
Built in Display	5 icon Indicators
Operation Mode	Fingerprint, Face, Iris & Palm Vein (single & multi-mode)
Dimension (mm / in)	200(W) × 200(D) × 192(H) / 7.8(W) × 7.8(D) × 7.5(H)
Weight	1.5 kg / 3.3 lb
Communications	Gigabit Ethernet, RS-485, USB 2.0
Input / Output	Exit Button, Door Status, Fire, Timed Input, Wiegand In / Relay × 2, Alarm Signal, Wiegand Out
External Interface	USB 2.0 & HDMI
Power	12V DC / 5A
Tamper Protection	SPIP (Smart Personal Information Protection) Feature(optional)
Operating Temperature	0 ~ 60 °C / 32 ~ 140 °F
Operating Humidity	5 % ~ 80 %
Certifications	CE, NRTL, TUV, KCC
Management SW	CruAMS
Encryption	AES256
Connections	28p Terminal Block, RJ45, Standard HDMI, 4p Socket USB



## BACS™ Duo

- Dual biometric (Face & Palm vein) & RFID reader
- Simultaneous authentication of up to two biometric modalities
- 100% touchless authentication
- Ultra fast walk-through recognition
- Simple integration with an array of systems via various interfaces
- Logging for up to 1,000,000 events



Memory / Storage	8GB / 64GB, 128GB, 256GB
Built-in Display	3.5" LCD Display
Operation Mode	Face & Palm Vein & RFID (single & multi-mode)
Dimension (mm / in)	180(W) × 70(D) × 180(H) / 7.0(W) × 2.7(D) × 7.0(H)
Weight	1 kg / 2.2 lb
Communications	Gigabit Ethernet, USB 3.0
Input / Output	Exit, Alarm, Door status, Fire / Wiegand Out, Relay
External Interface	USB 3.0 & Mini DP
Power	12V DC / 3A
Tamper Protection	SPIP (Smart Personal Information Protection)(optional)
Operating Temperature	0 ~ 60 °C / 32 ~ 140 °F
Operating Humidity	5 % ~ 80 %
Certifications	CE, NRTL, TUV, KCC
Management SW	CruAMS
Encryption	AES256
Connections	12p Socket, 8p Ethernet Socket, Mini DP, Standard USB

\* Specifications are subject to change without notice.



## BACS™ Duo-M

- Dual biometric (Face & Palm vein) & RFID reader
- Simultaneous authentication
- 100% touchless authentication
- Simple integration with an array of systems via various interfaces
- Slim design, Log capacity for up to 100,000 events

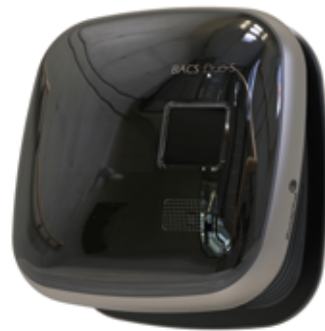


Memory / Storage	DDR3 2GB / eMMC 16GB
Built in Display	2.23" OLED
Operation Mode	Face, Palm Vein & RFID
Dimension (mm / in)	100 (H) × 72 (D) × 200 (H) / 3.9 (H) × 2.8 (D) × 7.8 (H)
Weight	0.8 kg / 1.76 lb
Communications	Ethernet, RS-485, USB 2.0
Input / Output	Exit, Door status, Fire, / Weigand out, Relay, Alarm
Power	12V DC / 3A
Tamper Protection	SPIP
Operating Temperature	0 ~ 60 °C / 32 ~ 140 °F
Operating Humidity	5 % ~ 80 %
Management SW	CruAMS
Encryption	AES256
Connection	12p socket, 8p RJ45



## BACS™ Duo-S

- Dual biometric (Face & Palm vein) & RFID reader
- Simultaneous authentication
- 100% touchless authentication
- Simple integration with an array of systems via various interfaces
- Compact design, Log capacity for up to 100,000 events



Memory / Storage	DDR3 2GB / MicroSD 8GB
Built in Display	2.23" OLED
Operation Mode	Face, Palm Vein & RFID
Dimension (mm / in)	140 (H) × 65 (D) × 150 (H) / 5.5 (H) × 2.5 (D) × 5.9 (H)
Weight	0.8 kg / 1.76 lb
Communications	Ethernet, RS-485, USB 2.0
Input / Output	Exit, Door status, Fire, / Weigand out, Relay, Alarm
Power	12V DC / 3A
Tamper Protection	SPIP
Operating Temperature	0 ~ 60 °C / 32 ~ 140 °F
Operating Humidity	5 % ~ 80 %
Management SW	CruAMS
Encryption	AES256
Connection	12p socket, 8p RJ45

\* Specifications are subject to change without notice.



## BACS™ Solo Palm

- Single biometric (Palm vein) & RFID reader
- Simultaneous authentication
- 100% touchless authentication
- Simple integration with an array of systems via various interfaces
- High-speed data processing



Memory / Storage	2GB / 8GB
Built-in Display	Motion Lighting, Color Changing
Operation Mode	Palm Vein & RFID (single & multi mode)
Dimension (mm / in)	131 (W) × 131 (D) × 85 (H) / 5.19 (W) × 5.19 (D) × 3.36 (H)
Weight	0.5 kg / 1.1 lb
Communications	Gigabit Ethernet, USB 2.0
Input / Output	Exit, Door Status, Fire / Wiegand Out, Relay, Alarm
External Interface	USB 2.0 & HDMI
Power	12V DC / 3A
Tamper Protection	SPIP (Smart Personal Information Protection) Feature(optional)
Operating Temperature	0 ~ 60 °C / 32 ~ 140 °F
Operating Humidity	5 % ~ 80 %
Management SW	CruAMS
Encryption	AES256
Connection	12p Socket, 8p Ethernet Socket, HDMI, Standard USB

\* Specifications are subject to change without notice.

# Biometric Industrial Automation Solution

BACS™ industrial solution is an innovative way to protect assets using face and iris biometric authentication period. BACS™ Tube reduces time and effort required in the existing card or procedure logon process while maintaining quality control through an efficient access control process.

- 100% Touchless authentication
- Reduces costs, processes, computability tasks
- Time & attendance control
- Protects intellectual property at the highest security level

- Remote terminal and data control
- Individual lab/machine security control
- 24 hours login/enter history log report



BACS™ Biometric Readers



## BACS™ Tube

- Multi-factor identification - Face & Iris
- Simultaneous authentication
- 100% touchless authentication
- Simple integration with an array of systems via various interfaces.
- Full mirror display for optimal UX, most suitable for factory environment

Memory / Storage	2GB / 32GB
Built in Display	Motion lighting
Operation Mode	Face & Iris
Dimension (mm / in)	180(H) x 57(D) x 55(H) / 7.1(H) x 2.2(D) x 2.1(H)
Weight	0.4 kg / 0.8 lb
Communications	Ethernet, RS-485, USB 2.0
Output	Relay, GPO
Power	12V DC / 3A
Operating Temperature	0 ~ 60 °C / 32 ~ 140 °F
Operating Humidity	5 % ~ 80 %
Management SW	CruAMS
Encryption	AES256
Connection	18p socket, RJ45

# Biometric Door Solution

BACS™ Suite is the latest generation solution providing a built-in biometric door solution. Protect and control your space with Suite while adding value and increasing security through the introduction of identity verification.



BACS™ Biometric Readers

## BACS™ Suite

- Multi-factor identification - Face, Palm vein & RFID
- Simultaneous authentication
- Custom built-in design enhances interior aesthetics
- Luxury residences, hotels & resorts, exclusive spaces

Memory / Storage	2GB / 4GB
Built-in Display	OLED display
Operation Mode	Face, Palm vein & RFID
Dimension (mm / in)	100 (H) x 50 (D) x 238 (H) / 39.37 (H) x 19.68 (D) x 93.70 (H)
Weight	7 kg / 1.2 lb
Communications	Wi-Fi, Gigabit Ethernet, RS-485, USB 2.0
Input / Output	Exit in, Door status, Fire in / Relay
Power	12V DC / 3A
Operating Temperature	0 ~ 60 °C / 32 ~ 140 °F
Operating Humidity	5 % ~ 80 %
Management SW	CruAMS
Encryption	AES256
Connection	18p socket, 8p Ethernet socket, HDMI micro, USB



# Biometric Template Enrollment System

Capture and enroll precise biometric user templates within seconds for a seamless onboarding process.



## BACS™ Enrollmentstation e4

- Ergonomic design
- High-speed enroll process(Less than 10 sec.)
- Automatically finds best quality data
- Intuitive and user friendly UX
- External RFID Reader (Optional)

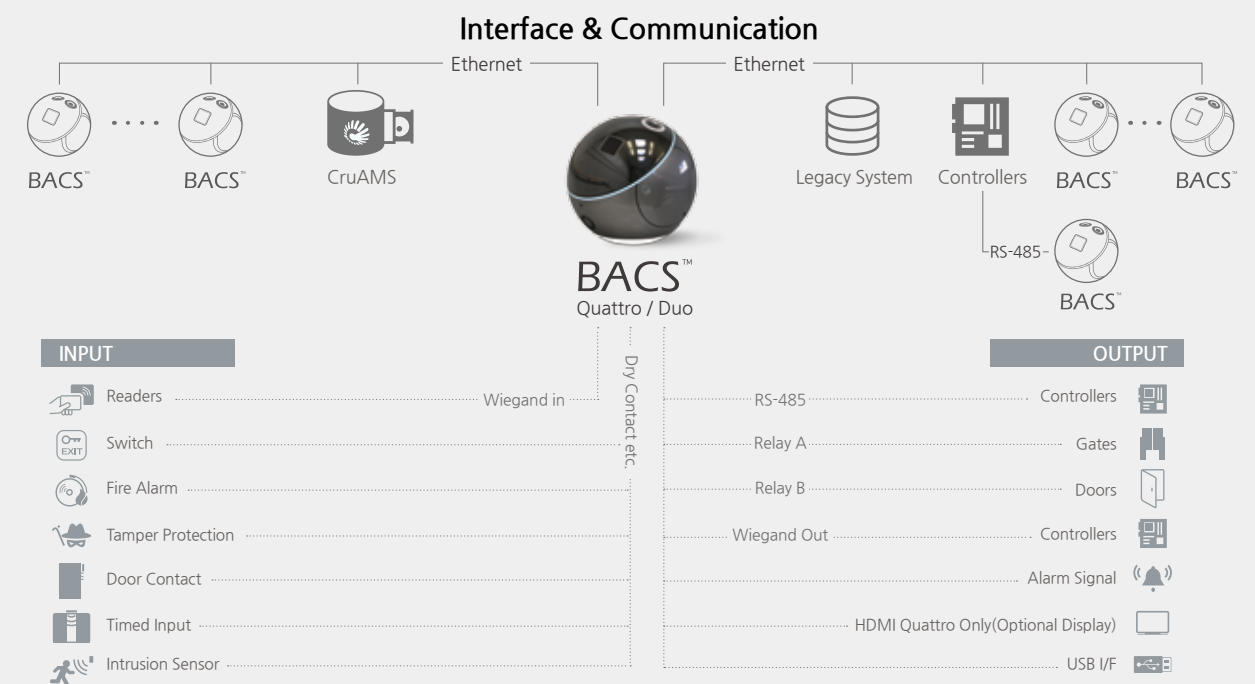


Display	24" LCD Display
4 Biometric Enrollment	100% Touchless Fingerprint, Face, Iris & Palm Vein
Dimension (mm / in)	Main Body : 399(W) x 199(D) x 569 (H) / 15.7(W) x 7.8(D) x 22.4(H)
	Sub Module : 399(W) x 79(D) x 569 (H) / 15.7(W) x 7.8(D) x 3.1(H)
Weight	Approx. 15 kg / 33.0 lb (Including Monitor)
Communications	Gigabit Ethernet, USB 2.0
External Ports	USB 2.0 for External RFID Reader, Keyboard & Mouse etc.
Power	110 ~ 220V AC
Operating Temperature	0 ~ 60 °C / 32 ~ 140 °F
Operating Humidity	5 % ~ 80 %
Management SW	CruAMS
Mounting	Desktop

Easy and simple integration with existing security system and devices with any BACS™ readers.

### System Configuration

BACS™ is compatible with third party systems and modules, therefore eliminating the need to replace existing controllers.



\* Specifications are subject to change without notice.

## Speed Gate Solution

CrucialTrak's Speed Gate line is an industry leader in high security design and innovation. SpeedTrak Slim Swing is the world's slimmest and most reliable high-throughput speed gate.

**CrucialTrak**

### State of the Art Speed Gate Solution

Slim Swing is an extremely slim and compact swinging barrier speed gate with a clear acrylic motorized panel. The thin formfactor provides a wider space and rapid throughput in daily life.

All-in-one assembly minimizes on-site installation time while various color and panel customization options allow the gate to blend in with the existing environment. SpeedTrak elevates aesthetic and security to an all new level.

### SpeedTrak™ Slim Swing

The Ultra slim swing gate increases space efficiency and creates an elegant interior design.

- Simple and easy installation
- Spacious passageway (ADA compliant)
- Tailgate detection
- Safety detection sensor
- Fast throughput
- Remote control
- Customization options

Model	SpeedTrak SW-33
Throughput	25 ~ 30 people / min
Movement	Motorized Panel Swing
Speed	0.5 / 0.8 sec. (Adjustable)
Direction	Bi-Directional
Proximity Sensor	0.1 ~ 2 m / 3.9 ~ 78.7 in
Material (Body)	Al, S.S, Steel
Material (Panel)	Hard Coat PC, Acrylic Acid Resin
Power	AC 110 ~ 220V, 50/60Hz
Operating Temperature	0 ~ 45 °C / 32 ~ 113 °F

## Speed Gate Solution

SpeedTrak™ RoboArm is at the forefront of innovation. Using a simple configuration adjustment each RoboArm lane can be installed as either standard or wide width. Benefit from maximized space efficiency with the highly flexible SpeedTrak™ RoboArm gate.



SpeedTrak™ Speed Gates

### State of the Art Speed Gate Solution

RoboArm's innovative design includes adjustable joint movement action arms with Aluminum anodizing and a stainless steel motorized panel. The unique and stylish design of RoboArm breaks the rules of the standard speed gate and delivers optimal performance. Customization options allow the gate to blend in seamlessly with the existing environment and the all-in-one assembly minimizes on-site installation time.

### SpeedTrak™ RoboArm

World's first Robot-Arm Action Technology Speed Gate.

- Spacious passageway (ADA compliant)
- Simple and easy installation
- Tailgate detection
- Safety detection sensor
- Fast throughput
- Remote control
- Customization options

Model	SpeedTrak RoboArm
Throughput	25 ~ 30 People / min
Movement	Adjustable Joint Movement
Speed	0.4 / 0.8 sec. (Adjustable)
Proximity Sensor	0.1 ~ 2 m / 3.9 ~ 78.7 in
Material (Body)	Al, S.S., Steel
Material (Panel)	Hard Coat PC, Acrylic Acid Resin
Power	AC 110 ~ 220V, 50/60Hz
Operating Temperature	0 ~ 45 °C / 32 ~ 113 °F

\* Specifications are subject to change without notice.



[www.crucialtrak.com](http://www.crucialtrak.com)  
Email : [info@crucialtrak.com](mailto:info@crucialtrak.com)

**US HEADQUARTERS - HOUSTON**

820 Gessner Road, Suite 1275, Houston, TX 77024  
Tel : (832) 767. 5453

**KOREA HEADQUARTERS AND R&D CENTER - PANGYO**

62 Pangyo-ro 255, Bundang, Seongnam 13486, Korea  
Tel : + 82 . 31. 8060 . 3000  
Fax : + 82 . 31. 8060. 3604

## Invitation to join CrucialTrak's Partnership Program

CrucialTrak's Partnership Program is designed to help you bring access control solutions and entry management to market quickly, easily and with great impact. Our program will streamline the process of business development in markets with any application, by focusing on partners that drive profitable relationships and ensure long-term customer success.

We invite you to expand your business portfolio and join the [CrucialTrak](#) Partnership Program.