**SUPREMA ACCESS CONTROL DEVICE – BioEntry W3**

**TECHNICAL SPECIFICATIONS**

2024-09-30

# PART 1 - GENERAL

The intent of this document is to specify the minimum criteria for the design, supply, installation, and commissioning of the BioEntry W3.

* 1. SUMMARY

1. Section includes a biometric reader and door controller with Ethernet network connectivity.
2. Product - An IP enabled biometric reader and door controller, capable of scanning and registering faces, RFID cards, and mobile access cards, managing users, and controlling access.
   1. REFERENCE
3. Standards
4. IEEE 802.3 Ethernet Standards
5. FCC - Code of Federal Regulations, Part 15, Class A
6. Conformity for Europe (CE)—Equipment Directive (RED) 2014/53/EU
7. UK Conformity Assessed (UKCA)
8. Korea Certification (KC)
9. Industry Canada (IC)
10. Regulatory Compliance Mark (RCM)
11. Bluetooth SIG
12. Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) - (EC No. 1907/2006)
13. The Waste Electrical and Electronic Equipment (WEEE) - Directive 2012/19/EU
14. Telecom Engineering Center (TELEC)
15. ANSI / IEC60529 – Degrees of Protection Provided by Enclosures
    * + 1. International Electrotechnical Commission (IEC) – Ingress Protection Rating IP67
16. IEC 62262 - Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts IK08.
    1. SUBMITTALS
    2. QUALIFICATIONS
17. Manufacturer shall be ISO 9001 certified with a minimum of five years’ experience in producing access control equipment.
18. Installers shall be trained by the Manufacturer to install, configure, and commission the access control system.
    1. WARRANTY
19. Manufacturer shall provide a limited ( ) month warranty for the product to be free of defect in material and workmanship.

END OF SECTION

# PART 2 - PRODUCTS

1. EQUIPMENT
2. Manufacturer   
   Suprema Inc.   
   17F Parkview Office Tower, 248, Jeongjail-ro, Seongnam-si, Gyeonggi-do, 13554, Republic of Korea  
   Tel: 82-31-783-4502, Fax: 82-31-783-4503, [https://www.supremainc.com](https://www.supremainc.com/)  
   [https://support.supremainc.com](https://support.supremainc.com/)
3. Model(s) name: BioEntry W3

Part Number: BEW3

Sub Model

1. BEW3-DB: Face authentication, EM, MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3, FeliCa, Mobile Access Card (NFC, BLE) supported
2. BEW3-APB: Face authentication, EM, HID Prox, MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3, FeliCa, iCLASS SE/SR/Seos, Mobile Access Card (NFC, BLE) supported
3. Alternates: NONE
4. DESCRIPTION
5. The biometric reader and door controller (“reader/controller”) shall be an IP-enabled device capable of scanning faces, RFID cards, and mobile access cards, managing users, and controlling access.
6. FEATURES
7. Time Attendance and Access Control device
8. Quad Core 1.5 GHz with 2 GB RAM
9. Mobile Access card support (NFC, BLE)
10. Multi-class RFID card reading
11. Photo enrollment support
12. Enrollment through an email link
13. Bulk enrollment through CSV import
14. Live Face Detection
15. IP67, Dust & Waterproof
16. IK08, Impact Protection
17. Display type 1.3” PMOLED
18. TCP/IP, RS-485, Wiegand, Input, Relay, PoE(BEW3-APB only), RTSP, USB(FW-Upgrade only), Extended USB, Tamper
19. SPECIFICATIONS

|  |  |  |
| --- | --- | --- |
| **Category** | **Feature** | **Specification** |
| Credential | Biometric | Face |
| RF Option | * **BEW3-DB**: 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa * **BEW3-APB**: 125kHz EM, HID Prox & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa, iCLASS SE/SR/Seos |
| RF Read Range**2)** | MIFARE/DESFire/EM/iCLASS: 50 mm, FeliCa/HID Prox: 30 mm |
| Mobile | NFC, BLE |
| General | CPU | 1.5 GHz Quad Core |
| Memory | 16 GB Flash + 2 GB RAM |
| Crypto Chip | Supported |
| Display | 1.3” PMOLED |
| LED | Multi-color |
| Sound | 16 bit |
| Operating Temperature | -20 °C ~ 50 °C |
| Storage Temperature | -40 °C ~ 70 °C |
| Operating Humidity | 0 % ~ 80 %, non-condensing |
| Storage Humidity | 0 % ~ 90 %, non-condensing |
| Camera | 2 MP 2 EA |
| Dimension (W x H x D) | 50 x 160 x 34.15 (mm) |
| Weight | Device   * **BEW3-DB**: 283 g * **BEW3-APB**: 291 g |
| Bracket: 36 g |
| IP Rating | IP67 |
| IK Rating | IK08 |
| Certifications | CE, UKCA, KC, FCC, IC, RCM, BIS, ANATEL, SIG, RoHS, REACH, WEEE, EAC, TELEC |
| Face | Authentication Distance**3)** | 0.3 ~ 1.0 m |
| Authentication Height | 1.4 ~ 1.9 m |
| Matching Speed | Within 0.2 seconds |
| Live Face Detection | Supported |
| Capacity | Max. User | 100,000**4)** |
| Max. Credentials (1:N) | * **Face**: 30,000 * **Card**: 100,000 |
| Max. Credentials (1:1) | * **Face**: 30,000 * **Card**: 100,000 |
| Max. Text Logs | 1,000,000 |
| Max. Image Logs | 10,000 |
| Interface | Ethernet | Supported (10/100 Mbps, auto MDI/MDI-X) |
| RS-485 | 1 ch Master / Slave (Selectable) |
| RS-485 Communication Protocol | OSDP V2 compliant |
| Wiegand | 1 ch Input and 1 ch Output |
| Input | 3 ch Inputs |
| Relay | 1 Relay |
| PoE | * **BEW3-DB**: Not supported * **BEW3-APB**: Supported (IEEE 802.3at compliant) |
| RTSP | Supported |
| USB | USB 2.0 (Type C), only FW-Upgrade |
| USB Expansion Port | Supported |
| Tamper | Supported |
| Electrical | Power | * **Voltage**: 12 Vdc * **Current**: Max. 1.0 A |
| * **Voltage**: 24 Vdc * **Current**: Max. 0.6 A |
| Switch Input VIH | * **Min.**: 3 V * **Max.**: 5 V |
| Switch Input VIL | Max.: 1 V |
| Switch Pull-up Resistance | 4.7 kΩ (The input ports are pulled up with 4.7 kΩ) |
| Wiegand Output VOH | More than 4.8 V |
| Wiegand Output VOL | Less than 0.2 V |
| Wiegnad Output Pull-up Resistance | Internally pulled up with 1 kΩ |
| Relay | 2 A @ 30 VDC Resistive load  1 A @ 30 VDC Inductive load |
| Platform | BioStar 2 | Supported |

1) DESFire EV2/EV3 cards are supported by having backward compatibility of DESFire EV1 cards. CSN and smart card functions are compatible with BioEntry W3.

2) RF read range will vary depending on installation environment.

3) The minimum face authentication distance shown is the default setting for the product, and the recommended face authentication distance is 0.6 to 1.0 m.

4) The number of users registered without having any credential data.

END OF SECTION

# PART 3 - EXECUTION

1. INSTALLER
2. Contractor personnel shall comply with all applicable state and local licensing requirements.
3. PREPARATION
4. Contractor shall avoid locating the reader/controller in a location subject to direct sunlight, dust or soot.
5. IP addressing shall be coordinated with the Owner’s responsible IT personnel.
6. STORAGE
7. The device shall be stored in an environment where temperature is in the range of -40°C to 70°C.
8. The device shall be stored in an environment where humidity is in the range of 0% to 90%, non-condensing.
9. INSTALLATION
10. The device shall be installed in an environment where temperature is in the range of -20 °C to 50 °C.
11. The device shall be installed in an environment where humidity is in the range of 0 % to 80 %, non-condensing.
12. All wires shall be run through conduit to prevent failure caused by rodent damage.
13. Connections between card readers and a door controller shall not exceed 100 meters.
14. All peripheral devices shall be grounded.
15. Keep at least 10 cm distance between the devices when install multiple devices.
16. To avoid RF interference, a minimum separation distance must be maintained.

|  |  |
| --- | --- |
| Wall thickness | Distance |
| 100 mm | 270 mm |
| 120 mm | 250 mm |
| 150 mm | 170 mm |

1. EXAMINATION
2. All network connections to the reader/controller shall be tested for proper levels of performance.

END OF SECTION