**SUPREMA SECURE MULTI-INPUT MODULE– IM-120**

**TECHNICAL SPECIFICATIONS**

2024-02-13

# PART 1 - GENERAL

The intent of this document is to specify the minimum criteria for the design, supply, installation, and commissioning of the IM-120.

* 1. SUMMARY

1. A multi-input module, capable of instant relay behavior for detected inputs in real-time.
   1. REFERENCE
2. Standards
3. FCC - Code of Federal Regulations, Part 15, Class A
4. Conformity for Europe (CE)
5. UK Conformity Assessed (UKCA)
6. Korea Certification (KC)
7. Regulatory Compliance Mark (RCM)
8. Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) - (EC No. 1907/2006)
9. The Waste Electrical and Electronic Equipment (WEEE) - Directive 2012/19/EU
   1. SUBMITTALS
   2. QUALIFICATIONS
10. Manufacturer shall be ISO 9001 certified with a minimum of five years’ experience in producing access control equipment.
11. Installers shall be trained by the Manufacturer to install, configure, and commission the access control system.
    1. WARRANTY
12. Manufacturer shall provide a limited ( ) month warranty for the product to be free of defects 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://support.supremainc.com>
3. Model(s) name: Input Module

Part Number: IM-120

1. Alternates: NONE
2. DESCRIPTION
3. A multi-input module, capable of instant relay behavior for detected inputs in real-time by connecting to BioStar 2.
4. Supports 12 supervised inputs per module.
5. FEATURES
6. Linkage between inputs and relays where the relay operates immediately when an input signal is detected in real-time.
7. Detects 4 states such as ON, OFF, Open, and Short with 12 supervised inputs.
8. Supports offline operation.
9. Provides various interfaces: Supervised Input, Relay, RS-485, AUX Input, Tamper.
10. SPECIFICATIONS

|  |  |  |
| --- | --- | --- |
| **Category** | **Feature** | **Specification** |
| General | CPU | Cortex M3 72 MHz |
| Memory | 512 KB Flash + 64 KB SRAM |
| LED | Multi-color   * Power - 1 * Status - 1 * RS-485 TX - 1 * RS-485 RX - 1 * Supervised Input - 12 * Relay - 2 * AUX IN - 2 * Tamper - 1 |
| Operating Temperature | -20 °C ~ 60 °C |
| Storage Temperature | -40 °C ~ 70 °C |
| Operating Humidity | 0 % ~ 95 %, non-condensing |
| Storage Humidity | 0 % ~ 95 %, non-condensing |
| Dimension (W x H x D) | 90 x 190 x 21 (mm) |
| Weight | 203 g |
| Certificates | CE, UKCA, KC, FCC, RCM, RoHS, REACH, WEEE |
| Interface | TTL Input | 12 ch**1)** |
| Supervised Input | 12 ch**1)** |
| RS-485 | 1 ch |
| RS-485 Communication Protocol | OSDP V2 compliant |
| Relay | 2 Relays |
| AUX Input | 2 ch (AC POWER FAIL) |
| Tamper Input | 1 ch |
| Capacity | Text Log | 10 ea per port**2)** |
| Electrical | Power | * Voltage: 12 Vdc * Current: Max. 0.2 A |
| * Voltage: 24 Vdc * Current: Max. 0.1 A |
| Switch Input VIH | Max.: 5 V (Dry Contact) |
| Relay | 5 A @ 30 VDC Resistive load |
| Platform | BioStar 2 | Supported |

* Product specifications are subject to change without notice to improve.

1) TTL Input or Supervised Input selectable.

2) For events that occur while network connection is lost, up to 10 events can be saved per port. When a port is full, each newly logged event will replace the oldest one.

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. STORAGE
6. The device shall be stored in an environment where temperature is in the range of -40 °C ~ 70 °C.
7. The device shall be stored in an environment where humidity is in the range of 0 % ~ 95 %, non-condensing.
8. INSTALLATION
9. The device shall be installed in an environment where temperature is in the range of -20 °C ~ 60 °C.
10. The device shall be installed in an environment where humidity is in the range of 0 % ~ 95 %, non-condensing.
11. All wires shall be run through conduits to prevent failure caused by rodent damage.
12. Connections between card readers and a door controller shall not exceed 100 meters.
13. All peripheral devices shall be grounded.
14. EXAMINATION
15. All network connections to the reader/controller shall be tested for proper levels of performance.

END OF SECTION