MorphoAccess® SIGMA Extreme Series BY IDEMIA

Public Security

Access & Time fingerprint terminal for harsh operating conditions

Compatible with Morpho and biocrypt existing installations

- Withstands strong impacts and resists to vandalism (IK09 rated)
- Impermeable to dust and water (IP65 sealed enclosure)
- 300,000 templates, 250,000 IDs in authorized user list, 1 Million logs
- Fake finger and face detection, duress finger, timed anti-pass back
- Time & Attendance and videophone functions
- Embedded web server
- Prox®, iClass® or MIFARE®/DESFire®/ NFC contactless card reader as an option

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Robust in all aspects

IK09

The MA SIGMA Extreme, **including its large capacitive touchscreen**, is resistant to vandalism and can withstand the impact of a 500g (1 lb.) steel ball dropped from a height of 2 meters (6.5 ft.).

IP65

The product enclosure, **front and rear**, is sealed and impermeable to dust and water.

TOUGH HOUSING

- Polycarbonate (PC) strong plastics
- Minimum thickness of 3.5 mm (0.14 in.)
- Resistant to UV and weathering (UL 746C f1 rated)
- Dirt-repellent grained texture

TEMPERED GLASS

- 3.8 mm (0.15 in.) thick

ENHANCED MAN MACHINE INTERFACE

- Very bright capacitive touchscreen, equipped with an ambient light sensor that automatically adjusts the display illumination
- Powerful loudspeaker suited to noisy environments

FIELD-PROVEN SENSOR

- Largest single fingerprint optical sensor on the market (23x23 mm)
- FBI PIV IQS certified
- Widely deployed in harsh environments (mines, seaports, etc.)

METICULOUS SEALING

- Screwed, sealed back panel protects electronics
- Fixed cable glands protect wiring

STURDY WALL MOUNTING

- Thick wall plate (3.5 to 11.4 mm / 0.14 to 0.45 in.), fixed with 6 peripheral screws (recommended, also compatible with standard electrical boxes)
- Ingenious, symmetrical lift-and-rotate opening mechanism enables easy in place maintenance
- 4 lateral hanging pins + 2 bottom fastening screws
- Withstands a load > 50 kg (110 lb.) vertically and horizontally

For demanding environments

MANUFACTURING SITES

MINES

OIL & GAS

POWER PLANTS

CONSTRUCTION SITES

RAILROAD INDUSTRY

AIRPORTS

SEAPORTS

SPORT ARENAS

CAMPUSES

THE SIGMA FAMILY

Rugged and powerful, the MorphoAccess® SIGMA Extreme by IDEMIA is a remarkable addition to the SIGMA Family of fingerprint readers.

Based on the same platform as other SIGMA devices, the outdoor MA SIGMA Extreme is specifically designed to operate in difficult environments (dust, salt mist, tough manual workplaces, etc.) and in harsh weather conditions.

With the entire SIGMA Family, integrators have a complete range of biometric terminals at their disposal, compatible with each other, to secure any kind of use case scenario – whether indoors or outdoors – with the World's most accurate fingerprint technology.

Key features

World #1 fingerprint technology

- Morpho fingerprint technology ranked #1 by NIST for accuracy
- Extendable identification capacity: 1:5K (default), 1:10K, 1:50K or 1:100K users, with genuine matching[1]
- 1:100K identification in less than 1 second (for frequent users)
- Accuracy maintained regardless of number of users

Anti-fraud features

- Patented, BSI[2] certified electro-optical Fake Finger Detection technology (option)
- Face detection and picture logging
- Duress finger option
- Timed anti-pass back function[3]
- Banned/authorized user lists
- Tamper switches

Time & attendance functions

- Touchscreen Time Clock, featuring 16 programmable function keys
- Access time slots and holidays scheduling
- Accurate clock in/out records (up to 1 Million logs storage capacity)
- Real-time employee notifications
- Job Code management

Videophone

- Built-in camera, speaker and microphone
- Standard IP-based audio/video interface
- Use cases:
- Call-in function: e.g. employees can quickly report a problem right from the Time Clock
- Surveillance: the terminal can be used by security staff to get pictures remotely from the security post

Embedded web server

After connection (via Ethernet or optional Wi-Fi) to a laptop, tablet or smartphone, it enables administrator to:

- Trigger on-device enrollment (enrollment on product touchscreen is also available)
- Configure product (full settings)
- Get transaction logs

Flexible architecture

- Prox®, iClass® or MIFARE®/DESFire®/NFC[4] contactless card reader as an option
- Various software integration options:
- ILV or Thrift commands at low protocol level
- Morpho Integrator's Kit (MIK) by IDEMIA or SecureSDK at SDK component level
- MorphoManager by IDEMIA or SecureAdmin at application level

[1] Search carried out against a single database
[2] Bundesamt für Sicherheit in der Informationstechnik (German Federal Agency for the Security of Information Technologies)
[3] Prevents repeated authorizations by the same user, within a configurable time period
[4] NFC support depends on the model/settings of the smartphone used with the MA SIGMA Extreme device

Technical specifications

- **CPU:** ARM® Cortex™-A9 core 1GHz
- **5" WVGA color capacitive touchscreen with ambient light sensor**
- **Front camera for face picture capture and videophone**
- **Loudspeaker & microphone**
- **Audio & video player**
- **FBI PIV IQS certified optical fingerprint sensor**
- **Contactless reader options:**
  - Prox®
  - iClass®
  - MIFARE®/MIFARE® Plus/DESFire®/NFC[1]
- **Internal storage capacity:** 512MB Flash, 1GB RAM + 8GB microSD Card
  - 5000 user records (2 fingers + 1 duress each), extendable up to 100,000 with licenses
  - 250,000 IDs in authorized user list
  - 1 Million transaction logs
  - 10,000 face picture logs
- **Network/Communication:**
  - Ethernet, RS485, RS422, USB
  - Wi-Fi option
- **Inputs/outputs:** Wiegand In & Out (customizable up to 512 bits), OSDP, Door Relay, 3 GPI (including Door monitoring), 3 GPO
- **Power supply:** 12 to 24 V DC (1A min @12V) Power over Ethernet (PoE) – Compatible with PoE+ switches
- **Tamper switches**
- **Operating conditions:**
  - Temperature: -20°C to 60°C (-4°F to 140°F)
  - Humidity: 10% to 95% (non condensing)
- **Ingress protection:** IP65
- **Mechanical impact protection:** IK09
- **HxWxD** = 301*142*97 mm (11.85*5.59*3.82 in.)
- **Weight:** ~1.6kg (~3.5 lb.)
- **EMC/Safety standards:** CE, CB, FCC
- **RoHS, REACh and WEEE compliant**

[1] NFC support depends on the model/settings of the smartphone used with the MA SIGMA Extreme device

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