

Secustos SQ80 LEGIC

Multi-frequency access control reader with LEGIC frontend SM-6300



(exemplary illustrations)

Secustos is a design-oriented multi-technology reader family. This reader for physical access applications is one of the flattest readers on the market. It supports up-to-date interfaces and protocols, like RS-485 and OSDP, but also Wiegand. The IP65 protected housing is made of high-class materials that confer the reader a unique look and feel.

Secustos SQ80 LEGIC supports a broad range of HF and LF contactless technologies. Many mobile use cases can be facilitated with its NFC and BLE functions, like authentication and data communication.

Special features:

- + Appealing flat design with premium look and feel, different colors for perfect architectural integration
- + Easy installation with in-wall flush-mount boxes or on-wall mounting frame
- + Equipped with LEGIC frontend chip SM-6300, supports LEGIC Connect
- + Water and dust protected, IP65 potted housing
- + Interfaces: RS-485, OSDP protocol or Wiegand
- + Dimmable LEDs
- + Proximity sensor, ambient light sensor, tamper switch
- + Versatile remote update and configuration features
- + Mobile app for device parameter configuration via contactless NFC

TECHNICAL DATA

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|------------------------|---|
| FREQUENCIES | 125 kHz (LF) / 13.56 MHz (HF) / 2.4 GHz (BLE) |
| ANTENNAS | Integrated |
| HOUSING | Metal frame and glass front, potted housing Available in 2 colors (silver or gray) |
| DIMENSIONS (L X W X H) | Reader frame only (mounted): approx. 86.00 x 86.00 x 8.25 mm / 3.38 x 3.38 x 0.33 inch Rear connector height: approx. 8.00 mm / 0.31 inch Reader with rear connector: approx. 86.00 x 86.00 x 15.90 mm / 3.38 x 3.38 x 0.62 inch Optional mounting frame: approx. 86.00 x 86.00 x 9.75 mm / 3.38 x 3.38 x 0.38 inch |
| POWER | Connector X1: 6.0 V – 28 V (10.0 V – 28 V for installations in a UL-certified environment) PS2 classified power source according to IEC 62368-1, short-circuit current < 8 A |
| CURRENT CONSUMPTION | Max. 300 mA @ 6.0 V |
| TEMPERATURE RANGE | Operating: -20 °C up to +60 °C (-4 °F up to +140 °F) Storage: -20 °C up to +70 °C (-4 °F up to +158 °F) |
| RELATIVE HUMIDITY | Mounted front: IP65 protected housing Transport/Storage: 5% to 95% non-condensing |
| READ / WRITE DISTANCE | LF and HF: up to 80 mm / 3.15 inch, depending on environment and transponder BLE: up to several meters/feet |
| WEIGHT | Reader, potted, with connectors and mounting plate: approx. 113 g / 3.99 oz |
| SABOTAGE DETECTION | Tamper switch |
| WIRE CONNECTORS | X1, 4-pin: RS-485 and power supply X2: 6-pin: Wiegand X1, X2: Plug-in connection terminal blocks, screw fastening of wires for wires 0.2 to 1.0 mm ² (for installation in a UL-certified environment, the minimum permissible wire size to be used shall not be less than 26 AWG (0.13 mm ²)) X3: 4-pin USB connector: 1.25 mm pitch, for maintenance and configuration purposes only |
| SIGNALING | 2 LED areas: upper left RGB, upper right white; LEDs dimmable LED brightness controllable via proximity and ambient light sensors |
| OS SUPPORT | Windows 7 (32-/64-bit) and higher, Linux, Android ¹⁾ , iOS ¹⁾ , MAC OS X ¹⁾ |
| PERIPHERAL INTERFACES | RS-485, output 5V Wiegand (D0/D1) with up to three additional input lines (IN1, IN2, IN3) |
| PROTOCOLS | OSDP v2.2 |
| TRANSMISSION SPEED | HF Air: up to 848 kbit/s, BLE Air: up to 100 kbit/s, Host RS-485: up to 38,400 baud |
| CERTIFICATION NAME | Secustos SQ80 LEGIC |
| CERTIFICATIONS | Non-exhaustive list ²⁾ : CE/RED, FCC, IC, UL listed, REACH and RoHS-III compliant |

¹⁾On request ²⁾The product has been certified for use in many countries and regions. Contact your Sales representative for detailed information about all certifications and approvals granted to the product.

SUPPORTED TRANSPONDERS¹⁾

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| SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ | <u>ISO14443A:</u> LEGIC Advant, NTAG2xx, MIFARE Classic ²⁾ , MIFARE Classic EV1 ³⁾ , MIFARE DESFire EV1, MIFARE DESFire EV2 ⁴⁾ , MIFARE DESFire EV3 ⁴⁾ , MIFARE DESFire Light ⁴⁾ , MIFARE Mini, MIFARE Plus S/X, MIFARE Smart MX ⁵⁾ , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 ³⁾ , SLE44R35 ⁵⁾ , SLE66Rxx (my-d move) ⁵⁾ <u>ISO14443B:</u> Calypso ⁵⁾ , CEPAS ⁵⁾ , Pico Pass ⁶⁾ <u>ISO15693:</u> EM4x33 ⁵⁾ , EM4x35 ⁵⁾ , ICODE SLI, LEGIC Advant, M24LR16/64, Pico Pass ⁶⁾ , SRF55Vxx (my-d vicinity) ⁵⁾ , Tag-it <u>ISO18092 / ECMA-340:</u> NFC Forum Tag 2-5, Sony FeliCa ⁷⁾ <u>LEGIC:</u> LEGIC Prime |
| SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ⁸⁾ | AWID, Cardax ⁹⁾ , CASI-RUSCO, Deister ⁹⁾ , EM4050, EM4100, EM4102 ²⁾ , EM4150, EM4200 ¹⁰⁾ , EM4305, EM4450, EM4550, HITAG 1 ¹¹⁾ , HITAG 2 ¹¹⁾ , HITAG S ¹¹⁾ , ICT, IDTECK, ISONAS, Keri, Miro, Nedap ⁹⁾ , Pyramid, Q5, T5557, T5567, T5577, TITAN (EM4050), UltraProx, UNIQUE, ZODIAC |
| SUPPORTED TRANSPONDERS (P OPTION) | All standard transponders, G-Prox ⁹⁾ , HID 1326 Prox II, HID 1336 DuoProx II, HID 1346 ProxKey III, HID 1386 ISO Prox II, HID 1391 Micro Prox, HID Prox, Indala, ioProx, Nexwatch |

¹⁾Unless otherwise agreed with sesamsec, the product is delivered with a standard firmware version that might be older than the latest firmware developed by sesamsec. This firmware version can be changed using sesamsec SecoTool. Please note that the information given in this document regarding the transponder technologies supported by the product is based on the latest firmware version. ²⁾Only MIFARE Classic 1k and EM4102 have been tested as part of the UL 294 certification. ³⁾r/w enhanced security features on request ⁴⁾Supported as part of the EV1 downward compatibility ⁵⁾r/w in transparent data exchange mode ⁶⁾UID only ⁷⁾UID + read/write public area ⁸⁾125 kHz technologies require a Russian local test and import license from the ministry of Trade and Industry (MINPROMTORC). This license has to be in place before sesamsec can accept any order to be shipped to Russia ⁹⁾Hash value only ¹⁰⁾Only emulation of 4100, 4102 ¹¹⁾Without encryption

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| ORDER CODES | T4SW-DQ00NSW7-OSEU ¹⁾ : Reader with silver frame/white glass front T4SW-DQ00NDGY7-OSEU ¹⁾ : Reader with gray frame/gray glass front T4SW-DQ00NSW7-OSUS ²⁾ : Reader with silver frame/white glass front T4SW-DQ00NDGY7-OSUS ²⁾ : Reader with gray frame/gray glass front |
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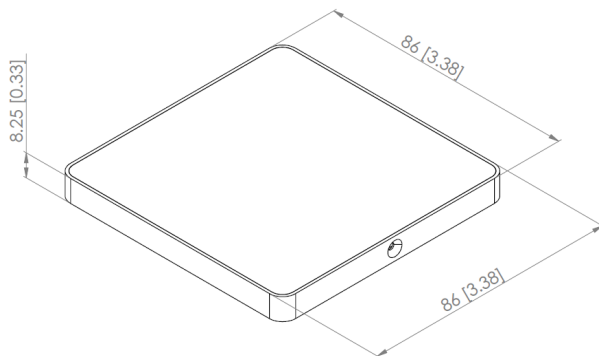
¹⁾Not available in countries/regions subject to FCC or IC approval.

²⁾Only available in countries/regions subject to FCC or IC approval.

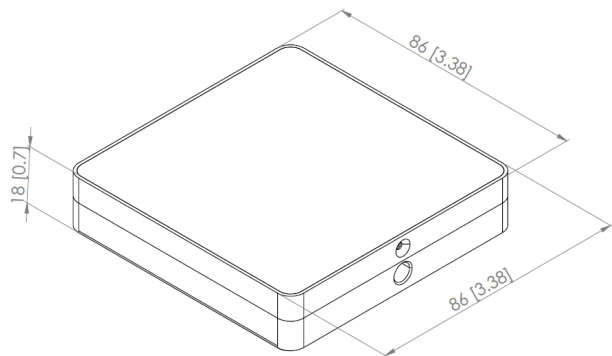
ACCESSORIES

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|---------------------------|--|
| MOUNTING FRAME | T4SA-QWF1SL: mounting frame, silver T4SA-QWF1GY: mounting frame, gray |
| MOUNTING PLATE SET | T4SA-QMPUS1: mounting set with two metal plates and fixing screws |
| USB CABLES | CAB-J4MSBAMSB150: configuration cable, for OSEU reader versions CAB-J4FSBAMSB150: configuration cable, for OSUS reader versions |
| SECO APP | sesamsec Seco App, available in Google Play for Android NFC devices |

TECHNICAL DRAWINGS



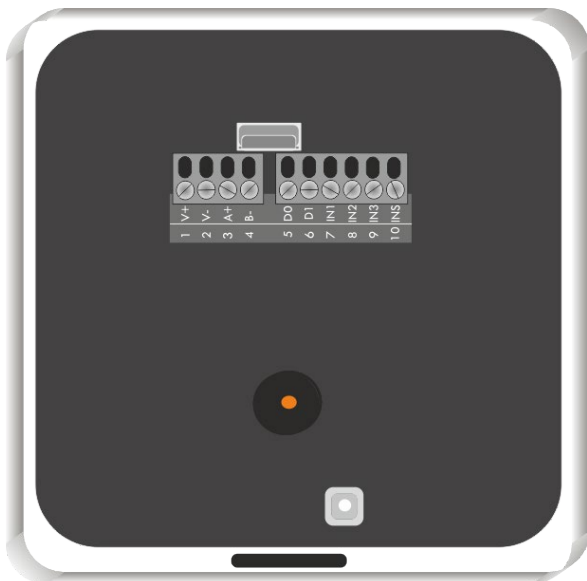
reader without mounting frame
front view



reader with mounting frame
front view

All measures in mm [inch]

CONNECTOR ASSIGNMENT



Power supply

V+ Input voltage 6 – 28 V¹⁾

V- Ground

Data transfer¹⁾

A+ RS-485, cable length: max. 1000 m

B- RS-485, cable length: max. 1000 m

D0 Wiegand D0, cable length: max 200 m

D1 Wiegand D1, cable length: max 200 m

IN1 Digital input 1, cable length: max 200 m

IN2 Digital input 2, cable length: max 200 m

IN3 Digital input 3, cable length: max 200 m

INS Digital input S (for external Sabotage switch), optional if sabotage button is not available on the reader, cable length: max 200 m

Cable routing requirements: twisted pair cabling (D0/GND, D1/GND). Refer to the Secustos manual for detailed information about cabling and dimensions.

Maintenance / Configuration

4-pin USB connector, 1.25 mm pitch (for maintenance and configuration purposes only)

Typical installation cables are JY(ST)Y 4x2x0.6 or JY(ST)Y 4x2x0.8.

¹⁾ Installation in a UL-certified environment: Please observe the input voltage of 10 – 28 V and the max. cable length of 30 m. In addition, the minimum permissible wire size to be used shall not be less than 23 AWG (0.28 mm²).

Alternatively, any other appropriate cables that meet the prerequisites of RS-485 installations and wirings can be used.

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