

# SECUSTOS SQ80

## ACCESS CONTROL READER



(exemplary illustration)

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 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
- + 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**

FREQUENCY	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 x 86 x 8.25 mm / 3.38 x 3.38 x 0.33 inch Rear connector height: approx. 8 mm / 0.31 inch Reader with rear connector: approx. 86 x 86 x 15.9 mm / 3.38 x 3.38 x 0.62 inch Optional mounting frame: approx. 86 x 86 x 9.75 mm / 3.38 x 3.38 x 0.38 inch	
POWER	6.0 V - 28 V via connector X1 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	Up to 80 mm / 3.15 inch, depending on environment and transponder BT: 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 <sup>2</sup> 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 <sup>(1)</sup> , iOS <sup>(1)</sup> , MAC OS X <sup>(1)</sup>	
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, BT Air: up to 100 kbit/s, Host RS-485: up to 38,400 baud	
CERTIFICATION NAME	Secustos SQ80	
CERTIFICATIONS	CE/RED <sup>(2)</sup> , FCC <sup>(2)</sup> , IC <sup>(2)</sup> , REACH and RoHS-III compliant, and many more <sup>(3)</sup> Contact sesamsec for operation in UL certified environments.	
ORDER CODES	T4SW-FQ00NDSW7 T4SW-FQ00NDGY7	silver frame, white glass front gray frame, gray glass front

**SUPPORTED TRANSPONDERS<sup>4)</sup>**

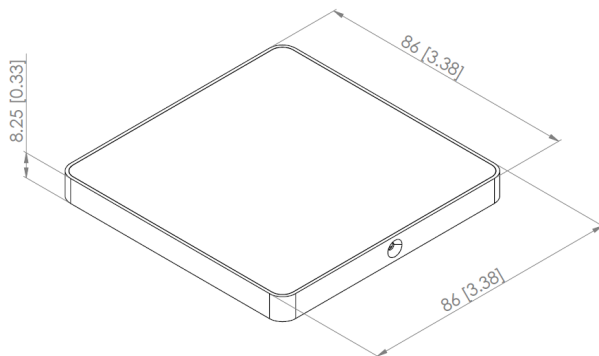
<b>SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ</b>	<b>ISO14443A:</b> LEGIC Advant <sup>5)</sup> , NTAG2xx, MIFARE Classic, MIFARE Classic EV1 <sup>6)</sup> , MIFARE DESFire EV1, MIFARE DESFire EV2 <sup>7)</sup> , MIFARE DESFire EV3 <sup>7)</sup> , MIFARE DESFire Light <sup>1)</sup> , MIFARE Mini, MIFARE Plus S/X, MIFARE Smart MX <sup>8)</sup> , MIFARE Ultralight, MIFARE Ultralight C, MIFARE Ultralight EV1 <sup>6)</sup> , SLE44R35 <sup>8)</sup> , SLE66Rxx (my-d move) <sup>8)</sup> , Topaz <b>ISO14443B:</b> Calypso <sup>8)</sup> , Calypso Innovatron protocol <sup>8)</sup> , CEPAS <sup>8)</sup> , CTS, Pico Pass <sup>9)</sup> , SRI4K, SRI512, SRIX4K, SRT512 <b>ISO15693:</b> EM4x33 <sup>8)</sup> , EM4x35 <sup>8)</sup> , ICODE SLI, LEGIC Advant <sup>5)</sup> , M24LR16/64, MB89R118/119, Pico Pass <sup>9)</sup> , SRF55Vxx (my-d vicinity) <sup>8)</sup> , Tag-it <b>ISO18092 / ECMA-340:</b> NFC Forum Tag 1-5, Sony FeliCa <sup>10)</sup>
<b>SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ<sup>11)</sup></b>	AWID, Cardax <sup>12)</sup> , CASI-RUSCO, Deister <sup>12)</sup> , EM4050, EM4100, EM4102, EM4150, EM4200 <sup>13)</sup> , EM4305, EM4450, EM4550, HITAG 1 <sup>14)</sup> , HITAG 2 <sup>14)</sup> , HITAG S <sup>14)</sup> , ICT <sup>1)</sup> , IDTECK, ISONAS, Keri, Miro, Nedap <sup>12)</sup> , Pyramid, Q5, T5557, T5567, T5577, TITAN (EM4050), UNIQUE, ZODIAC
<b>SUPPORTED TRANSPONDERS (P OPTION)</b>	All standard transponders, G-Prox <sup>12)</sup> , 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

<sup>1)</sup>On request <sup>2)</sup>Pending <sup>3)</sup>More information on request <sup>4)</sup>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 the sesamsec Config App. Please note that the information given in this document regarding the transponder technologies supported by the product is based on the latest firmware version. <sup>5)</sup>UID only <sup>6)</sup>r/w enhanced security features on request <sup>7)</sup>Supported as part of the EV1 downward compatibility <sup>8)</sup>r/w in direct chip command mode <sup>9)</sup>UID only, read/write on request <sup>10)</sup>UID + read/write public area <sup>11)</sup>125 kHz technology requires 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 <sup>12)</sup>Hash value only <sup>13)</sup>Only emulation of 4100, 4102 <sup>14)</sup>Without encryption

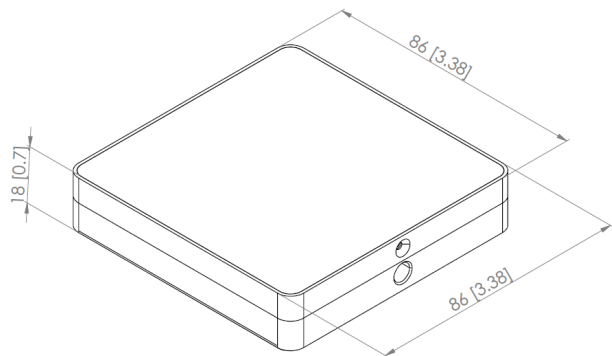
**ACCESSORIES**

<b>MOUNTING FRAME</b>	T4SA-QWF1SL	mounting frame, silver
	T4SA-QWF1GY	mounting frame, gray
<b>SECUSTOS SECO APP</b>	sesamsec Secustos Seco App, available in Google Play for Android NFC devices	

## DRAWINGS



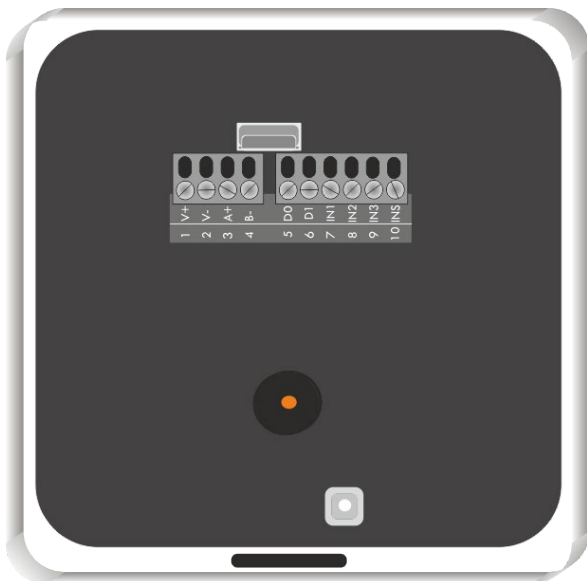
reader without mounting frame  
front view



reader with mounting frame  
front view

All measures in mm [inch]

## CONNECTOR ASSIGNMENT



### Power supply

V+	Input voltage 6 – 28 V
V-	Ground

### Data transfer

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 D0, 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

USB	4-pin USB connector, 1.25 mm pitch (for maintenance and configuration purposes only)
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Typical installation cables are:

JY(ST)Y 4x2x0.6 for distance between devices ≤ 25 m

JY(ST)Y 4x2x0.8 for distance between devices > 25 m

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

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