Secustos SQ80 LF HF

Multi-frequency access control reader

(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 LF HF supports a broad range of HF and LF contactless technologies. Many mobile use cases can be facilitated with its NFC function, 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

FREQUENCIES	125 kHz (LF) / 13.56 MHz (HF)
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 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
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 mm² 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, Host RS-485: up to 38,400 baud

[1)]On request

SUPPORTED TRANSPONDERS[1)]

SUPPORTED TRANSPONDERS (STANDARD) 13.56 MHZ	ISO14443A: LEGIC Advant[2)], NTAG2xx, MIFARE Classic, 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)], Topaz ISO14443B: Calypso[5)], Calypso Innovatron protocol[5)], CEPAS[5)], CTS, Pico Pass[2)], SRI4K, SRI512, SRIX4K, SRT512 ISO15693: EM4x33[5)], EM4x35[5)], ICODE SLI, LEGIC Advant[2)], M24LR16/64, MB89R118/119, Pico Pass[2)], SRF55Vxx (my-d vicinity)[5)], Tag-it ISO18092 / ECMA-340: NFC Forum Tag 1-5, Sony FeliCa[7)]
SUPPORTED TRANSPONDERS (STANDARD) 125 KHZ[8)]	AWID, Cardax[9)], CASI-RUSCO, Deister[9)], EM4050, EM4100, EM4102, 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)]UID only [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 [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

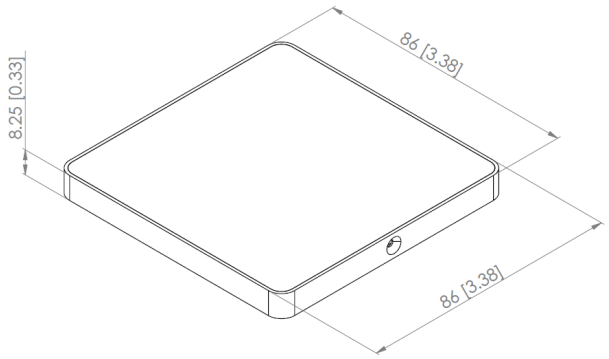
ORDER CODES	T4SW-FQ00NDSW6-OSEU[1)]: Reader with silver frame/white glass front T4SW-FQ00NDGY6-OSEU[1)]: Reader with gray frame/gray glass front T4SW-FQ00NDSW6-OSUS[2)]: Reader with silver frame/white glass front T4SW-FQ00NDGY6-OSUS[2)]: Reader with gray frame/gray glass front

[1)]Not available in countries/regions subject to FCC or IC approval.
[2)]Only available in countries/regions subject to FCC or IC approval.

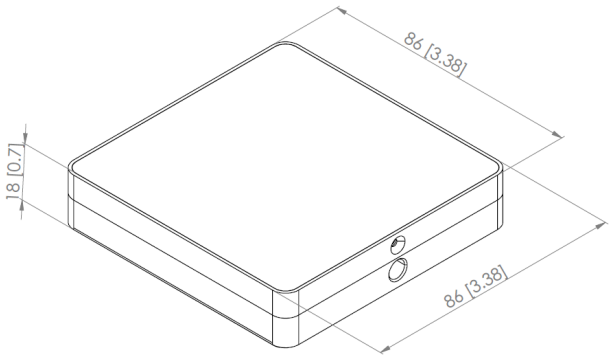
ACCESSORIES

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



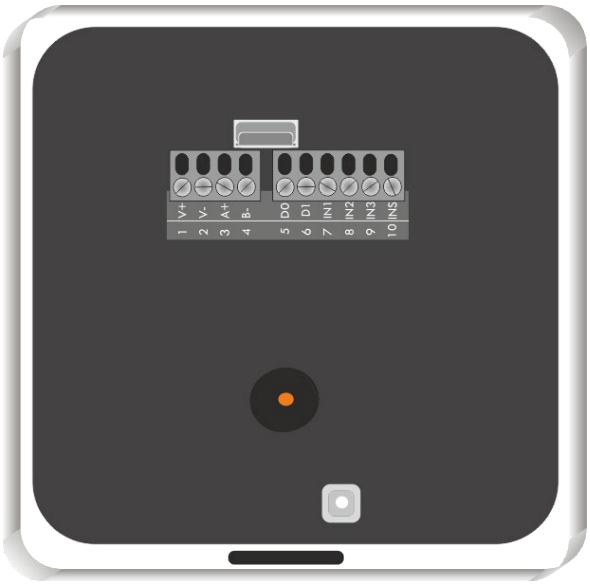
reader without mounting frame
front view



reader with mounting frame
front view

All measures in mm [inch]

CONNECTOR ASSIGNMENT



Power supply	
V+	Input voltage 6 – 28 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 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	
USB	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.

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

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