



EPD environmental product description CIDRON

General reader information

Cidron readers provide multiple platforms of RFID technologies and communication interfaces equipped with an LED bar and a mechanical keypad in a timeless design. Cidron readers suit almost any sort of application and environment, both in terms of indoor and outdoor use. Common applications include: Industrial buildings, military installations, education establishments, healthcare buildings, commercial buildings, government buildings. Installations can be from a lower up to the highest level of security.

Cidron readers incorporate several chip technologies and communication interface standards. For access control systems supporting OSDP secure channel, a credential transaction can be complete AES 128 encryption secured during the card reading and transmitting process between the reader and the access control controller. In addition to traditional radio frequency technologies such as 13,56MHz and 125KHz, BLE 4.0 and SAM AV2 are also supported. This combination makes the product flexible for all kind of security applications and future technology requirements applicable for the security industry.

The LED bar indicates, in combination with a buzzer sounds, a user-friendly and clear information in real time for the user. Cidron readers are tamper protected with a mechanical switch which allows for indication both on attempts of break off and manipulation of the reader.

Production, design & assembling

Cidron products are specified and designed to meet requirements specified and requested from the European and US security market. All the product designs are made in Sweden and the electronic design and the manufacturing of the products are made in China. The combination to integrate experience from the security business together with industrial design knowledge and the latest within the RFID technology have created a product that can be installed in almost all kinds of environmental applications and also meet all the function and feature requirements of the market. It has also given the opportunity to provide a flexible product that is cost effective to produce, can be partly assembled before delivery and easy to install.

This combination ensures that the product design can meet the environmental requirements related to weather conditions, usability and performance for high security applications. Manufacturing factories in China are licensed sub-supplier factories to Civintec, the main supplier in China.

The production and the assembling process is controlled and restricted with process and quality routines that are not possible to neglect. We have always taken as our duties and obligation to build up and continuously improve our production process and quality management system that covers vendor's survey and recommendations. The final assembling of the complete product is done in Sweden for the EMEA market. This assembling includes adding firmware, configuration set-up together with authentication keys. The tools for adding all configuration and security settings are developed in Sweden by Seriline.

Technical data

Specification	
Power supply	9 – 30 VDC
ISO standards	ISO 14443A/B, ISO 18092
Card technologies	Electromarine EM4200. HID Proximity. MIFARE CSN 4 byte, MIFARE CSN 7 byte, MIFARE Classic, MIFARE Plus, MIFARE DESFire 0.6, EV1, EV2, EV3 and MIFARE Random UID. ICLASS UID ISO14443B. Also supports other ISO 14443 A/B* compatible cards.
Frequency	125kHz, 13,56MHz, 2,4GHz
Interfaces	Wiegand, Clock/Data, OSDP 1, OSDP 2 (including Secure channel), RS232 and RS485.
Protection class	IP 65 (requires the accessory climate protection SC9901)
Humidity	0 – 95% RHNC (Relative Humidity No Condensation)
Operating temperature	-40° – +70°C

Compliance with US & Canada unlicensed radios

US FCC CFR Title 47part 15 Subpart C
Section 15.247, 15.209, 15.225

Compliance with European union R&TTE Directive

CE 2011/65/EU, CE 2015/863/EU,
RED 2014/53/EU

Health:
EN62479:2010, EN50364:2018, EN62369-1:2009

Safety:
EN IEC 62368-1:2020 + A11:2020

EMC:
EN301 489-1 V2.2.0:2017-03,
EN301 489-3 V2.1.1:2017-03,
EN301 489-17 V3.2.0:2017-03,
EN50130-4:2011/A1:2014

Radio:
EN300 328V2.1.2:2016-11,
EN300 330V2.1.1(2017-02)

Security:
EN 50130-4:2011

Compliance with RoHS3 Directive

RoHS directive 2011/65/EU, 2015/863/EU
IEC 62321-3-1-2013, IEC 62321-5-1-2013,
IEC 62321-6-1-2015, IEC 62321-8-1-2017

RF frequencies

13,56MHz, 125KHz, 2,4GHz

ISO standards

ISO14443A/B, ISO18092 & ISO7816

Delivery status

Each reader is delivered individually packed with bracket plate, front shield, reader module, accessories for assembling and installation guidelines. Packaged reader dimensions is 198 x 138 x 37mm.

Base materials

The average composition of Cidron reader is as follow.

Specification	
» Plastic	77.9%
» Glass	0.8%
» Electronics	18.0%
» Stainless steel	3.3%
» El mech	0.0%
» Total	100%

Manufacture

Manufacturing factories are licensed sub-supplier factories to Civintec who is the main supplier.

The production and the assembling process is controlled and restricted with process and quality routines that are not possible to neglect. The final assembling including software is made by Seriline in Sweden. All factories are ISO 9001 and ISO 14001 & 18001 certified.

Product processing/installation

Cidron products are distributed by contracted system integrators and installers. They can with the reader tool software or in combination of authentication and configurations cards customize all settings in the readers.

All installation partners are educated in the product and are continuously updated with latest product news.

Packaging

The reader is packed in a cardboard box, with related guidelines, connectors, and accessory hardware.

Condition of use

No auxiliary material is incurred for maintenance or usage. Repairs and replacement are usually not necessary.

Service lifetime

The service life for Cidron readers in an operating temperature of 60 degree is estimated to 175 200 hours.

The number is based on the most conservative MTBF (meantime between failure).

Water

No substance is used on the device which could have negative impact on ecological water quality.

Recycling

The Cidron product can be recycled according to local recycling options offered by municipalities electronics recyclers.

Dismounting/remounting

The Cidron reader can be dismounted and remounted and attached elsewhere.

Disposal

Packaging components incurred during installation are directed to local paper and cardboard recyclers.

The Cidron products can be dissembled to separate different material assumed collection rate is 5%. Rest is disposed as construction waste.

Declared product

The declare refer to one unit of Cidron VG3 standard reader SC93100-MDEB.

Name	Value	Unit
Declared unit	1	SC93100-MDEB
Mass (without packaging)	0.198	kg
Mass (with packaging)	0.253	kg

Operational energy use

The operational energy use refer to one unit of Cidron VG3 standard reader SC93100-MDEB.

Name	Value	Unit
Consumption	268	kWh
Year of use	30	Year
Days per year in use	365	Days
Hour per day in ON mode	2	Hour
Hour per day in Standby mode	22	Hour
Consumption ON mode	1.5	Watt
Consumption standby mode	0.62	Watt

References

ISO 9001 Quality management system requirements.

RoHS conformity Restriction of the use of hazardous substances in electric and electronic equipment.

EN 300 328
 EN 300 328 V2.1.1: Radio transmission
 2.4GHz BLE
 Electromagnetic compatibility and radio spectrum matters (ERM).

EN300 330 V2.1.1:2017 Radio transmission 9kHz-30MHz
 Electromagnetic compatibility and radio spectrum matters (ERM).

EN IEC 62368
 EN IEC 62368-1:2020 + A11:2020
 Information Technology part safety.

EN 301489
 EN301 489-1 V2.0.0:2017, EN301 489-3 V2.1.1:2017, EN301 489-17 V3.2.0:2017
 Common technical requirements. Specific conditions for short range devices (SRD) operating on frequencies 9kHz – 40GHz.

EN50130
 EN 50130-4:2011
 Alarm system - electromagnetic compatibility and environmental test methods.

FCC CFR title 47part 15 subpart C sections
 15.247. Frequency hopping direct spread spectrum and hybrid systems that are in the operation with bands 902 – 928MHz, 2400 – 2483.5MHz, 5725 – 5850MHz.
 15.255, Operating with the band 13.110 – 14.010MHZ.
 15.209 Radiated emission limits, general requirements.

Further information

More information about Seriline AB and Cidron reader products are available at www.seriline.com

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