

CRYSTAL

VERSATILE SMART CARD READER

NEW



Touch Screen



NFC & RFID
with SAM



Bluetooth



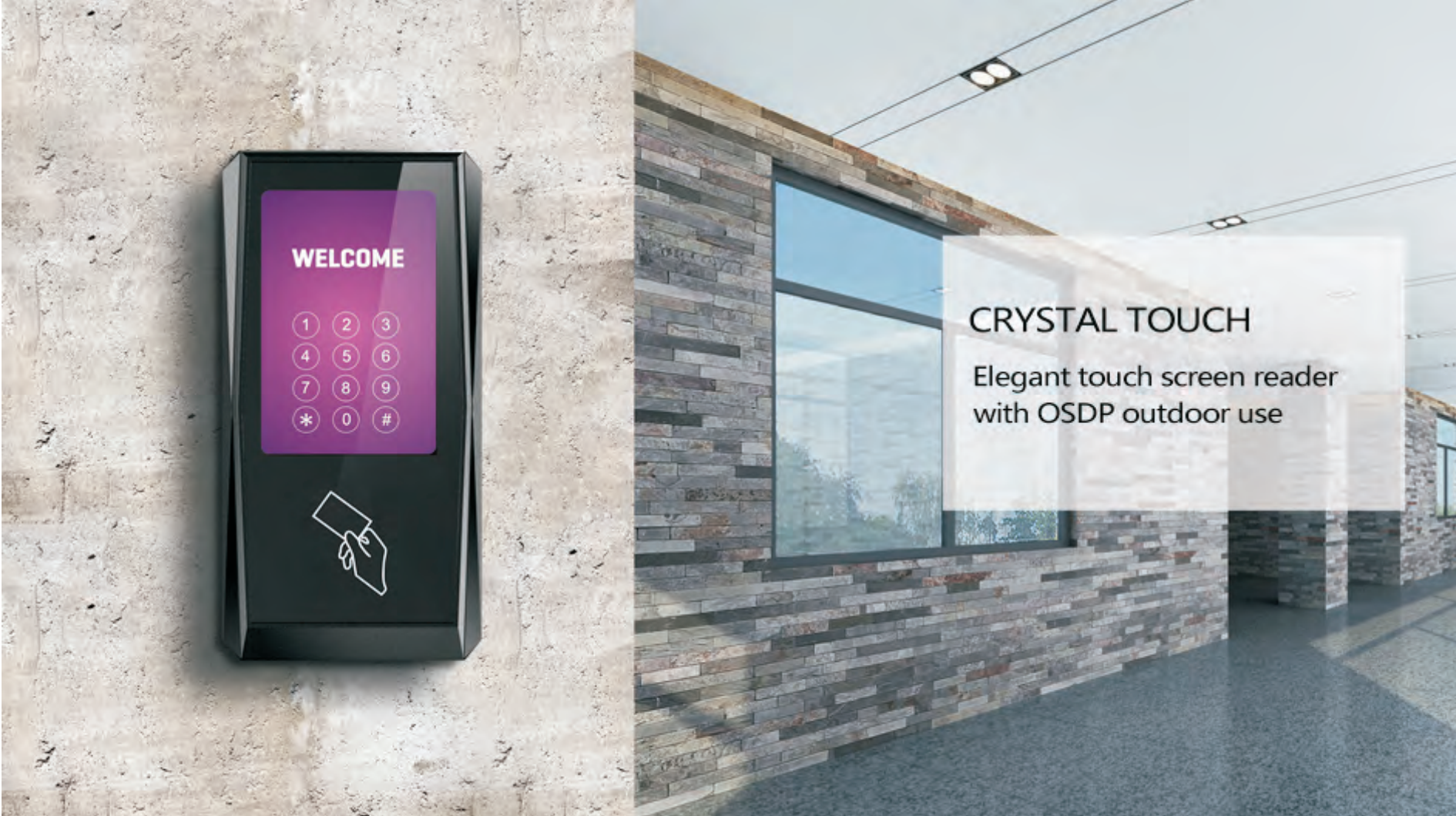
RS485 OSDP, Weigand



Indoor and outdoor



Configuration and
programming tools



CRYSTAL is versatile smart card reader with complete reader functionality and flexible features in perfect combination of reading technologies and communication choices, optimally designed for access control security in commercial, hospitals, universities, sports stadiums, retails, finance, high security objects and residential. The rough and elegant design provides a flexibility for touch screen based reader as well as mechanical keypad reader for both indoor and outdoor applications.

Touch screen & friendly indications

With high sensitive touch screen or OLED display, newly designed CRYSTAL reader present different states and activities with text and symbols in combination. Clear indications are easily identified in different illuminated symbols or LED flash and adjustable Buzzer with five different levels of sound in a user friendly way.

Advanced secure

CRYSTAL reads CSN or encrypted protected data from 13.56 MHz contactless smart cards utilizing key diversification and mutual authentication routines. It can be equipped with one or more SAM modules for secure data encryption when encrypted authentication is needed. Either for validating access cards or in product-to-product communication.

3-Authentication

CRYSTAL supports secure level dual authentication of identity supported through combined contactless card or NFC-Smartphone presentation and entry of personal identification number (PIN) through an integrated 12-key mechanical or touch keypad.

Universal compatibility

CRYSTAL offers universal compatibility with most access control systems, which provide multiple communication interfaces built in the same product from Wiegand 26-128 to RS485 OSDP offer universal compatibility with most especially well-known access control systems.

Protection against destruction

To protect against tampering, tamper alarm can activate local output on reader and transmit as a command to overall unit according to actual protocol specification. It can't be manipulated without providing tamper alarm when splitting or breaking away from the wall.



CRYSTAL KEYPAD

OLED display with mechanical keypad OSDP reader outdoor use

Specification

Crystal Series Reader	CRYSTAL Touch Touch Screen Reader	CRYSTAL KEYPAD mechanical keypad reader
Display	3.5" touch screen	OLED Display
Keypad	Touch sensitive keypad Controllable in variety of keypad outputs	12digit mechanical backlit keypads Controllable in variety of keypad outputs
ISO-Standard & Chip Technology	13.56MHz ISO14443A/B, ISO15693 Mifare® Classic, Mifare® CSN, Mifare® Plus, DESFire® EV1 125KHz on request ISO18092 NFC Peer to Peer, Card Emulation and Read and Write mode	
Bluetooth	BLE (Bluetooth low energy)	
SAM	ISO7816 (T=0, T=1) 1~2 SAM module, more on request	
Communication Interface	Weigand 26-128 Rs232, RS485 protocol OSDP 1 & 2, customizing protocol on request TCP/IP on request	
Power Supply	12 – 30VDC	
Consumption	Normal	Low power consumption for battery power
Indicator	Controllable Buzzer and Green/Red LED (display text configurable)	
GPIO Port	2 GPIO port	
Tamer Proof	1 tamper alarm switch	
Cable Connection	Terminal block connector or pigtail	
IP Protection	Ip65 outdoor/indoor use	
Operation Temperature	-10 ~ +60°C	-30 ~ +60°C
Operation Humidity	0 - 90% relative humidity non-condensing	
Certification	CE or and FCC approved	

*The specifications are subject to change without notice.

CIVINTEC OEM & ODM Customization Service

Technical Service from Design to Manufacture

CIVINTEC is leading technical service company on designing and manufacturing of smart card reader devices. CIVINTEC OEM/ODM technical service gives you the opportunity to design your own product. Our unique technical platform and experiences make cost effective customization possible and ensure short time to the market. Our process takes your future product all the way from idea to mass production.

OEM Your Brand LOGO

To screen print client's brand LOGO on CIVINTEC standard products

ODM (Customization)

- **Firmware**
Customize new features and/or integrate client's protocol on standard products
- **New Design**
Design new device from PCB hardware design
ID housing, prototype production to finished product

The values to client

- Cost effective customization in different levels
- Short time to market
- Development based on reliable HW & SW platforms
- Software development based on platform designed components
- Quality & Certification
- NDA protected

CIVINTEC OEM/ODM technical service gives you the opportunity to design your own product. Our unique technical platform and experiences make cost effective customization possible and ensure short time to the market. Our process takes your future product all the way from idea to mass production. Our skills cover almost all smart card chip technologies and interface technologies as well as implementation of additional technologies such as Bluetooth (BLE), NFC, WiFi ect.

