



# PULSE

## Access Control Series 2014

### Pulse 1028 Contactless Smart Card Reader

is an user friendly and high security physical Access Control reader, it is water proof design that suitable for different indoor and outdoor installation environment, it made by high quality material to ensure enhanced reliability and long-term duration.. Reader wiegand output can direct connect to any wiegand door access panel. The reader high security data encryption output which works with Encryption Gateway ensure the data cannot be snooped by external device, totally solve the wiegand signal problem.

#### KEY FEATURES:

- Waterproof Contactless Technology Keypad Reader
- NXP MIFARE Plus 2K / 4K bytes card read and write
- Random CSN output, AES Keys authentication (2 x 128 keys per sector)
- RED / Green / Blue or mixed color LED bar, user defined LED ON / OFF time interval
- Internal buzzer, user defined buzzer ON / OFF time interval
- Multi card format checking internally, fixed length card number output
- User define wiegand pulse interval to serve different door access panel
- User defined "keep alive" alive feature
- Reader firmware upgradable
- Standard mode : wiegand output to wiegand door access panel, RS485 to host for reader communication
- Secure mode : high security data encryption output, work with Encryption Gateway avoiding card data snooped



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## TECHNICAL DATA

<b>Model Number</b>	<b>1028</b>
<b>Card Technology</b>	NXP MIFARE Plus S and MIFARE Plus X (2K / 4K bytes)
<b>ISO standard</b>	ISO14443A
<b>Transmit Frequency</b>	AES 128 bits diversify key (2 x 128 bits key per sector)
<b>Key Authentication</b>	192 bits KEY, 3 DES encrypted
<b>Card Data Security</b>	Random CSN response
<b>MIFARE CSN</b>	ISO Card : 6cm ; Keyfob : 4cm
<b>MIFARE Sector Data</b>	Typical read range achieved in air; Different types of metal will cause some degradation
<b>Typical Read Range</b>	Use spacers to space product off metal and improve read range if required
<b>Communication</b>	Standard mode : Wiegand output  Secure mode : RS485; connect to Encryption Gateway, Encryption Gateway wiegand output to door access panel
<b>Reader firmware</b>	Reader firmware upgradable in off-line mode
<b>Keep alive</b>	User define 1 bytes "I am alive" data in a certain interval (apply for standard and secure mode)
<b>Multi Card format</b>	Powerful card format handling, 7 x Card number format and 3 x Facility code per card format checking before output  Fixed card number output (1 to 64 bits), parity bits disable / enable
<b>Wiegand output</b>	User define wiegand pulse interval for different door access panel
<b>Reader wires (10 wires)</b>	Power, Ground, Wiegand D0 / ABA Data, Wiegand D1 / ABA Clock, ABA card present, RS485(A), RS485(B),
<b>Mounting</b>	Wall Switch Size; designed to mount and cover single gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing
<b>Visual indicator</b>	LED bar in Red, Green & Blue color, user defined mixed color and ON / OFF time interval (ms)
<b>Audio indicator</b>	Internal buzzer, user defined beep sound ON / OFF time interval (ms)
<b>Color</b>	Dark Gray or White
<b>Dimension</b>	140g
<b>Product weight</b>	80 mm x 115 mm x 20 mm
<b>Operating Voltage</b>	9-16 VDC, Linear supply recommended
<b>Operating Current</b>	100mA AVG, 120mA PEAK
<b>Operating Temperature</b>	- 31° to 150° F (-35° to 65° C)
<b>Storage Temperature</b>	-67° to 185° F (-55° to 85° C)
<b>Operating Humidity</b>	5% to 95% relative humidity non-condensing
<b>Certification</b>	IP65, CE 0700, NCC-CCA13LP1153T7, RoHS
<b>Panel Connection</b>	Pigtail
<b>Housing Material</b>	Polycarbonate
<b>Cable Distance</b>	Wiegand interface: 500 feet (150 m), RS485 interface: 4000 feet (1200 m)  Recommended cable is ALPHA 1295 (22 AWG) 5 conductor minimum stranded with overall shield or equivalent

