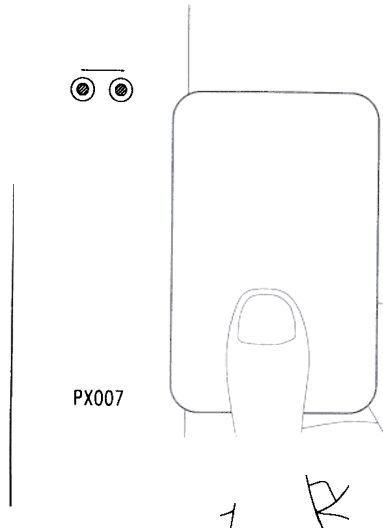


# Integrated Engineering PX007 Proximity Card Reader Family



The PX007 Proximity Card Reader has a slim door style mountable design to match any decor. The buried LED's and buzzer allow the PX007 Readers to be mounted indoors and out. The PX007 Reader Family accepts 4.75 to 14.25 Volts DC. The output formats like clock-and-data magstripe (ABA / ISO7811), Wiegand and a number of other formats are determined by the personalization of the card and are emitted without customizing the Reader. The 5 Volt DC capability allows the replacement of older reader systems without rewiring or pulling new cables. The PX007 Family offers high reliability, consistent read characteristics and low power consumption. Within the PX007 Proximity Reader Family also models with a RS232/RS422/RS485 interface are available for read and write operations. The PX007 Proximity Card Reader Family supports both the 125KHz and 13.56MHz technologies. Different models are available for EM4002, EM4050, HiTAG1 and 2, Mifare and I•Code silicon. Standard capabilities include Host system controlled red and green LED's and a buzzer. The PX007 Reader Family can be mounted on any surface without relevant performance degradation. Integrated Engineering is committed to bring *non-propriety, open* Radio Frequent Identification (RFID) systems to the market demonstrated with the PX007 Proximity Reader Family.

## Specifications

### Typical read range with an ISO Card

|              |                  |           |
|--------------|------------------|-----------|
| PX007BZ/HX   | HiTAG1, 2        | 5 - 10 cm |
| PX007AZ      | EM4002, EM4050   | 5 - 10 cm |
| PX007Z/MF    | Mifare           | 2 - 3 cm  |
| PX007Z/MFSNR | Mifare serialnr. | 2 - 5 cm  |
| PX007Z/ICSNR | I•Code serialnr. | 5 - 15 cm |

### Power Supply

4.75 – 12.25 Volt DC

### Current requirements

|         |        |
|---------|--------|
| Average | 50 mA  |
| Peak    | 100 mA |

### Interface

|         |                                |
|---------|--------------------------------|
| Inputs  | EMC Prot. 10Kohm pull-ups      |
| Outputs | EMC Prot. open drain 0.5 A/max |

### Dimensions

140 x 46 x 22 mm

### Material

Black ABS housing with polyurethan potting

### Operating temperature

-20° to 60° C

### Certifications

EN50022, CE, FCC

### Cable Distance

25 meter. Recommended cable 8 x 0.35 conductor stranded overall shield or equivalent.

## Features

### Mullion mounting

The PX007 Readers are designed to be unobtrusive and can be mounted on a door mullion.

### Indications

When a proximity card is decoded successfully the with the card associated code is send to the Host system, the red LED flashes and the buzzer sounds a short 3KHz beep. Both LED's and the buzzer are also controllable by the Host system.

### Connections

The PX007 Reader Family has a flexible and reliable connector interface. The space for the cable and the connector within the PX007 housing can be poured with silicone to withstand harsh environmental conditions.

### Interface Coding

The PX007 Reader Family can operate with any facility, system or card coding scheme. The output format, contents and length are determined by the personalization of the card. Output formats like magstripe, Wiegand and several others are available.

### Security

Depending on the model and the silicon used the PX007 Reader Family offers high security challenge response schemes to protect the RFID air interface against simulations of cards.

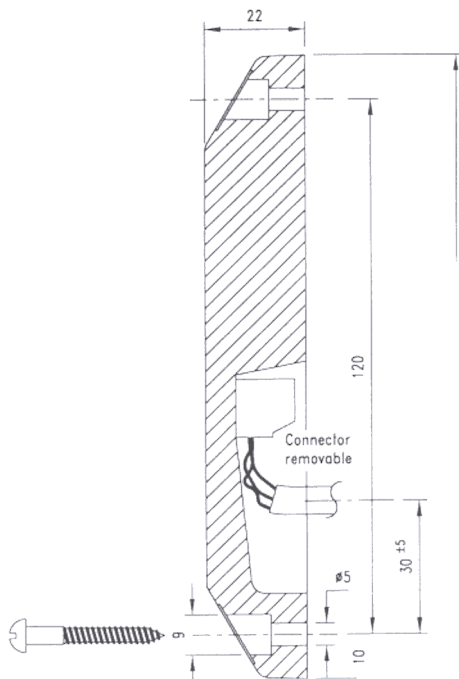
### Parts List

- |                                |             |
|--------------------------------|-------------|
| 1) PX007 Reader 4.75-12.25 VDC | qty 1       |
| 2) Terminal Connector 8 pins   | qty 1       |
| 3) Mounting sticker            | qty 2       |
| 4) Installation sheet          | qty 1       |
| 5) K25 spacer plate (optional) | qty 1       |
| 6) Cable, 8 x 0.35 conductor   | as required |

### Installation instruction

- 1) Determine an appropriate position for the Reader and drill two holes for mounting the reader to the surface (see diagram). Make sure that enough room to connect the cable is allowed. Protect the cable against sharp edges and any damage from chaffing.
- 2) Remove the Terminal Connector 8 pins from the back of the Reader. Use a small flat head screwdriver to loosen off all of the terminals. The end of the cable should be prepared by cutting it back to expose the wires and each end should be twisted to eliminate any loose or frayed wires.
- 3) The wires should then be connected to the Reader inline with the Connector Assignments.
- 4) After wiring the reader and the Host system the Reader is ready to be tested. Apply power and present a Card to the Reader. The red LED should flash and the buzzer should beep indicating a read. If the Host system is connected to the red and green LED inputs these should follow the functionality of the Host system.
- 5) The Reader should now be secured to the surface using the appropriate fasteners and the stickers should be applied to cover the mounting holes.

### Mullion Mounting



### Connector Assignments

PX007BZ/HX  
PX007AZ  
PX007Z/MF  
PX007Z/MFSNR  
PX007Z/ICSNR

- |   |                   |
|---|-------------------|
| 1 | ⇐ Red LED input   |
| 2 | ⇐ Green LED input |
| 3 | ⇐ Data / D1       |
| 4 | ⇐ Clock / D0      |
| 5 | ⇐ Buzzer input    |
| 6 | NC                |
| 7 | ⇐ Ground          |
| 8 | ⇐ Power           |

PX007BZ/HX/RS232  
PX007Z/MF/RS232  
PX007Z/MFSNR/RS232  
PX007Z/ICSNR/RS232

- |   |                        |
|---|------------------------|
| 1 | ⇐ Red LED input        |
| 2 | ⇐ Green LED input      |
| 3 | ⇐ RS232 RTS (optional) |
| 4 | ⇐ RS232 TXD            |
| 5 | ⇐ RS232 CTS (optional) |
| 6 | ⇐ RS232 RXD            |
| 7 | ⇐ Ground               |
| 8 | ⇐ Power                |

PX007BZ/HX/RS422  
PX007Z/MF/RS422  
PX007Z/MFSNR/RS422  
PX007Z/ICSNR/RS422

- |   |                   |
|---|-------------------|
| 1 | ⇐ Red LED input   |
| 2 | ⇐ Green LED input |
| 3 | ⇐ RS422 TXB       |
| 4 | ⇐ RS422 TXA       |
| 5 | ⇐ RS422 RXB       |
| 6 | ⇐ RS422 RXA       |
| 7 | ⇐ Ground          |
| 8 | ⇐ Power           |

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