Smart Piv

Single, Dual, and Tri-Technology PIV-II Reader

PIV-II reader available with optional barcode and magnetic stripe reading.

Reads all PIV-II compliant cards including CAC and TWIC cards.

Features

- Programmable PIV-II format options including expiration date
- Programmable LEDs
- Character masking (insertion & deletion)
- Good read beep
- Barcode option can read CAC cards, USID cards, and TWIC cards

Interfaces

- Wiegand/ABA/Wand/F2F/ Wieaba/Alphawie
- Rs232
- TCP / IP
- TTL Ascii or Inverted TTL Ascii
- Rs422/Rs485
- USB

Options

- Noryl Housing
- 1, 2 or 3 Magnetic Stripe Tracks
- Barcode (Infrared or visible optics)
- 5V, 12V, or 24V operation
- Networked (RS422 and TCP)
- Internal Relay
- Sense Inputs
- Power over ethernet
- Weatherproofing

ibc®
International Bar Code

International Barcode 160 Oak St. Glastonbury, CT 06033 **phone:** 860.659.9660 **fax:** 860.657.3860 **e-mail:** sales@interbar.com **web:** http://interbar.com

Specifications

Read Range:	3”
Barcode Scanning Speed:	3”-30” per second (7.62cm–76.2cm/sec)
Scanning Direction:	Bidirectional
Symbologies:	Code 39, I 2 of 5, 2 of 5, IND 2 of 5, Code 128, Codabar, EAN13, UPCA
Magnetic Stripe:	Tracks 1, 2 or 3 (high or low density, high or low convercity)
RF:	13mhz, all PIV-II compliant cards
Interfaces:	Wiegand, ABA, Rs232, Rs422/Rs485 (2 wire or 4 wire), F2F, Wieaba, Alphawie, TCP / IP, TTL ASCII, Wand emulation, USB
Good Read Beep:	Programmable
Slot Width:	0.050” (127mm)
Sense Inputs:	2 TTL sense inputs (optional)
Power Consumption[1]:	5V 145mA typical 250 max / 12V 90mA typical 140 max / 24V 45mA typical 75 max / POE 90mA
Material:	Black Polycarbonate. Noryl (chemical resistant, optional)
Dimensions:	4.6” L x 2.4” W x 1.4” H (11.68cm L x 6.10cm W x 3.56cm H)
Weight	6oz (170.1 grams)
Read Height:	.400” standard (1.02cm) / .465 (1.19cm) (optional)
Indicators	2 programmable LEDs (optional)
Relay[2]	30V DC 500mA Isolated form C relay (optional)
Trigger Output:	TTL trigger output (optional)
Light Source:	630nm visible / 940nm infrared
Temperature	-40°C to +85°C standard
Standard Wiring:	3ft (91.5cm) cable, flying leads or connectors depending on interface

[1]5V DC readers have a voltage tolerance of +/-5%.
12V DC readers may be operated from 8VDC–15VDC. 24V DC readers may be operated from 15V DC–30V DC.

[2]POE readers can also be ordered with a 12V switched relay 500mA directly connected to POE (non-Isolated form C)

Wiring

Wiring Connections for various Interfaces.

Rs232 Interface and TTL Interface

Red	+VDC
Blue	GND
Green	Reader Transmit
Yellow	Reader Receive

Rs422 4-Wire Interface

Red	+VDC
Blue	GND
Green	Reader Transmit +
White	Reader Transmit -
Yellow	Reader Receive +
Orange	Reader Receive -

Rs422/Rs485 2-Wire Interface

Same as 4-wire interface, except combine Green & Yellow, White & Orange

Wiegand / ABA / Wand Interface

Red	+VDC
Blue	GND
White	Data 1 / Mag Data / Wand / F2F
Green	Data 0 / Mag Clock
Orange	Green LED
Yellow	Bi-color LED

Relay Wiring (All Readers)[1]

Yellow	Normally Closed
Green	Normally Open
Red	Common

Sense Input Wiring

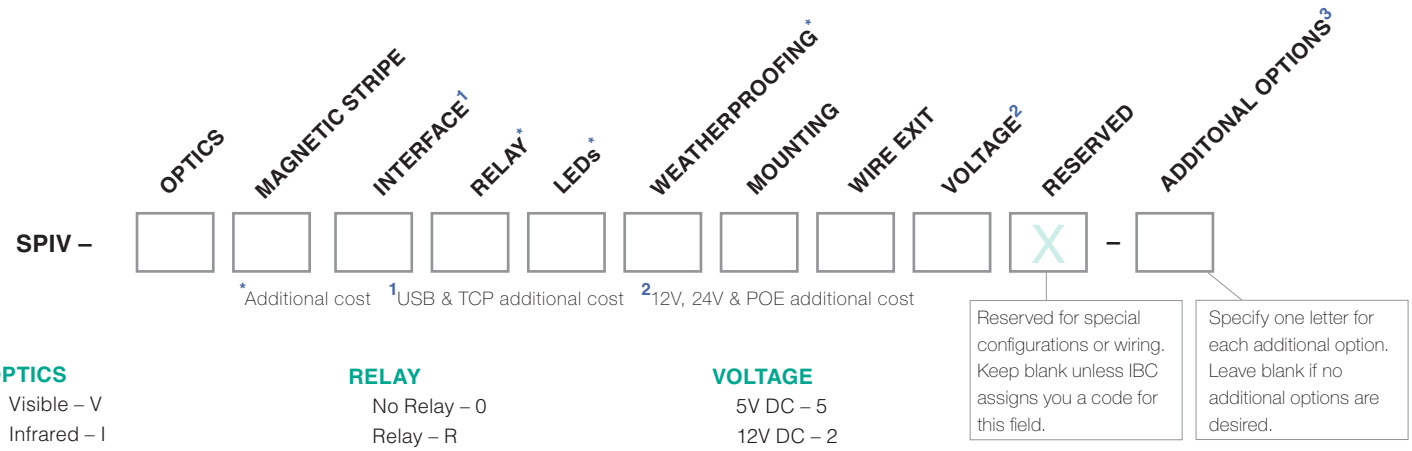
Yellow	Sense Input 1
Orange	Sense Input 2

The above wiring connections apply to standard readers only.
Contact IBC for non-standard wiring connections.

[1]For POE (power over ethernet) readers, without an isolated relay, the green wire (normally open) will have 12V DC available when the relay is ON. The yellow wire (normally closed) will have 12V DC power when the relay is OFF.

How to Order

Order Smart Piv with a code to indicate options required.



OPTICS
- Visible – V
- Infrared – I

MAGNETIC STRIPE
- No Track – 0
- Tracks 1 & 2 – 1
- Track 2 – 2
- Tracks 2 & 3 – 3
- Tracks 1, 2 & 3 – 4

INTERFACE
- Rs232 – S
- TCP/IP – C
- TTL ASCII – T
- Wiegand / ABA / Magstripe / f2f / wand / wieaba / alphanumeric wiegand – G
- Rs422/Rs485 – 2
- USB – U

RELAY
- No Relay – 0
- Relay – R

LEDs
- None – 0
- 2 LEDs (1 bicolor / 1 green) – L
- Red LED – R
- Green LED – G
- Legacy Red & Green – A

WEATHERPROOFING
- No Weatherproofing – 0
- Weatherproofing – W

MOUNTING
- #6 screw mounting – 6
- 3mm screw mounting – 3

WIRE EXIT
- Rear wire exit – R
- Side wire exit – S
- 6-pin rear mod jack – 6

VOLTAGE
- 5V DC – 5
- 12V DC – 2
- 24V DC – 4
- POE – P

ADDITIONAL OPTIONS
- Sense Inputs – S
- 0.465 read height for barcode (0.400=standard) – 4
- Noryl (chemical resistant) case –N
- POE with isolated relay – IR

[3]Noryl, Sense Inputs additional cost.

Examples

Examples of ordering codes for Smart Piv in popular interfaces.

Wiegand Interface

SPIV–I0G0LW6R2

Smart Piv with:
- Infrared optics – I
- No Magstripe – 0
- Wiegand Interface – G
- No Relay – 0
- 2 LEDs – L
- Weatherproofing – W
- #6 Mounting – 6
- Rear wire exit – R
- 12V DC supply – 2

Rs232 Interface

SPIV–02SRL06R2

Smart Piv with:
- No optics – 0
- Track 2 – 2
- Rs232 Interface – S
- Relay – R
- 2 LEDs – L
- No Weatherproofing – 0
- #6 Mounting – 6
- Rear wire exit – R
- 12V DC supply – 2

TCP / IP Interface

SPIV–I0CRLW6RP

Smart Piv with:
- Infrared optics – I
- No Magstripe – 0
- TCP / IP – C
- Relay –R
- 2 LEDs – L
- Weatherproofing – W
- #6 Mounting – 6
- Rear wire exit – R
- POE – P

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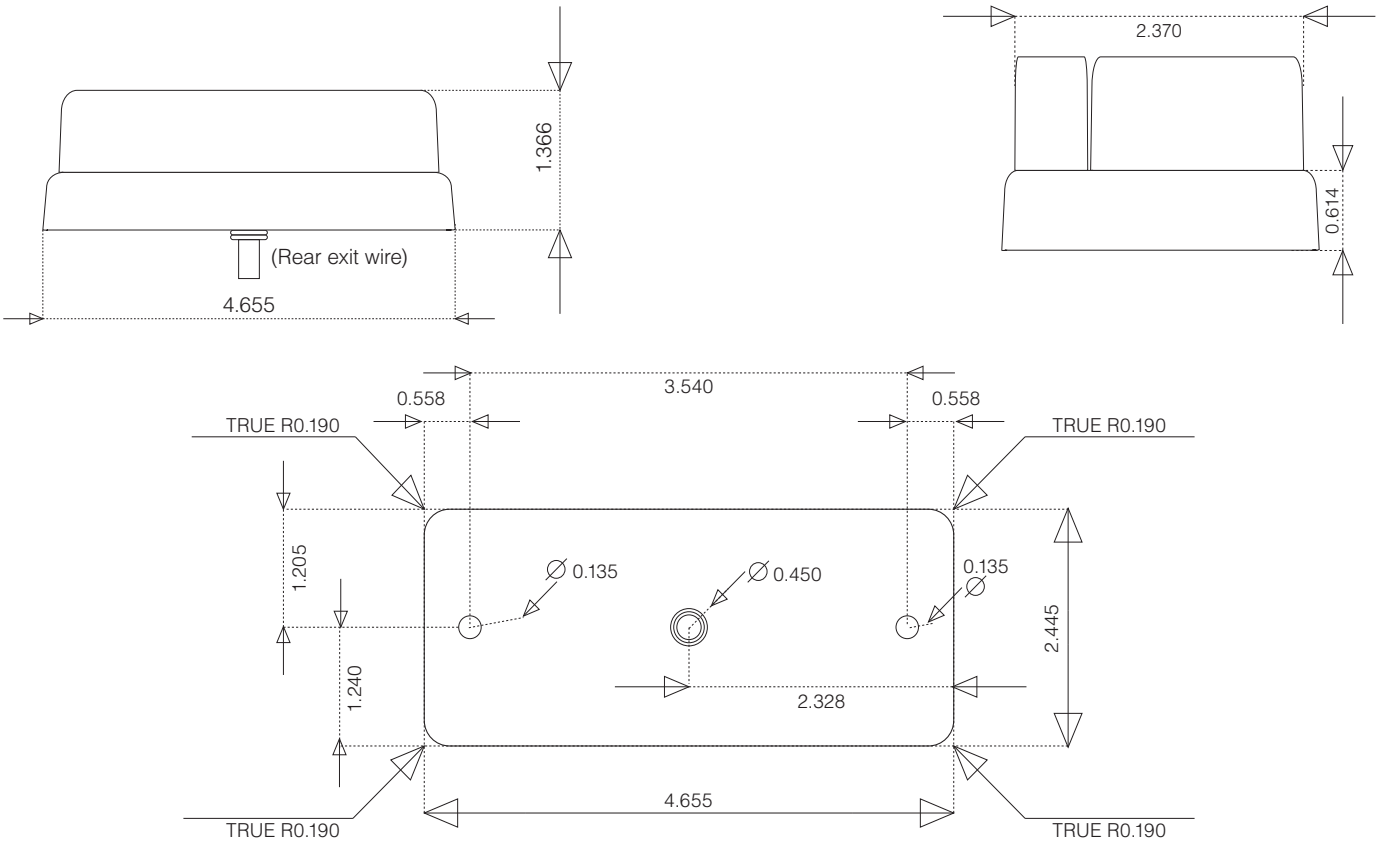
Dimensional Diagrams

Dimensional Measurements for the Smart Piv.



Notes for Ordering Smart Piv Readers

POWER

Standard PIV Series readers are powered with 5V DC. 12V DC and 24V DC are optional. 12V DC is recommended when connecting to panels.

WIRING

Readers can be ordered with a side wire exit, rear wire exit, or RJ12 rear jack, depending on the interface. Standard wiring for 5V Rs232 and all Rs422 readers is a 3' cable with flying leads. 5V Rs232 readers can be ordered with a DB9 connector and power wired to one of the pins. 12V and 24V Rs232 readers contain a 3' cable with a DB9 female connector, and a power pigtail for connection to an AC adaptor; which is included.

Standard wiring for all emulation outputs (wand, magstripe, wiegand) is a 3' cable with flying leads. Standard wiring for TCP readers is a 5' cable with a RJ45 jack and a RJ45 coupler. Standard wiring for usb readers is a 6' cable with a USB type A plug for direct connection to a PC.

Readers with sense inputs may contain a separate wire for the 2 sense inputs depending on the configuration. Readers with an external keypad interface contain a separate wire for connection to an external keypad. Power pigtails and an AC adaptor can be provided for all 12V and 24V readers that are ordered with flying leads. Custom wiring is available for most configurations.

RELAY

Readers with a relay contain a separate wire with flying leads for the relay connections. The relay is isolated for all configurations except POE. POE readers supply power directly to the relay, unless an isolated relay option is specified. The relay option is not available with readers ordered with an RJ12 jack.

LEDs

Readers can be ordered with 1 green LED, 1 red LED, red and green LEDs, or 1 bi-color and 1 green LED (default).

MOUNTING

The reader mounts from behind and is available with a 3mm screw insert or a 6-32 screw insert. The reader may be mounted from the front using the IBC Mounting Kit (Part No. MK-L).

For custom wiring or firmware contact IBC.