Smart Mag J

For Reading Magstripes Into Virtually Any System

The Smart Mag J is a magnetic stripe reader, available in many different interfaces for connecting to a variety of systems. The Smart Mag J is a versatile solution for almost any system which requires magnetic stripe reading.

Features & Options

- Programmable LEDs
- Character masking (insertion & deletion)
- 1 or 2 Tracks
- 5V, 12V, or 24V operation
- Networking
- Alphanumeric Display
- Good read beep
- Internal Relay
- Sense Inputs
- Power over ethernet
- Weatherproofing

Interfaces

- Wiegand
- Magstripe emulation
- Rs232
- Rs232 Wedge
- TCP / IP
- TTL ASCII or Inverted TTL ASCII
- Wand emulation
- Rs422
- PC Wedge XT / AT or PS2
- DTMF
- USB
- VT320

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

Magnetic Stripe:	Tracks 1, 2 or 3 (high or low density / high or low convercity)
Reading Direction:	Bidirectional
Interfaces:	Rs232, Rs232 Wedge, TCP / IP, TTL ASCII, INV TTL ASCII, Magstripe Emulation, Wand Emulation, Rs422, PC Wedge XT / AT, PC Wedge PS2, Wiegand, VT320 Wedge, DTMF, USB
Slot Width:	0.050" (127mm)
Displays:	8 character alpha display (optional)
Sense Inputs:	2 TTL sense inputs (optional)
Power Consumption[1]:	5V 100mA typical 200 max / 12V 50mA typical 100 max / 24V 30mA typical 60 max / POE
Material:	Black polycarbonate / Noryl (chemical resistant case) (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)
Indicators	2 programmable LEDs (optional)
Relay[2]	30V DC 500mA Isolated form C relay (optional)
Trigger Output:	5V DC TTL trigger output (optional)
Temperature	-40°C to +85°C standard
Standard Wiring:	3ft (91.5cm) cable, flying leads or connectors depending on interface

[1]Maximum power consumption does not include alphanumeric displays. 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

Red	+VDC
Blue	GND
Green	Reader Transmit
Yellow	Reader Receive

Rs422 Interface

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

ABA Interface (Gray cable)

Red	+8-15VDC
Blue	GND
White	Clock
Green	Media
Orange	Data
Yellow	Red LED
Brown	Green LED

Relay Wiring (All Readers)[1]

Yellow	Normally Closed
Green	Normally Open
Red	Common

ABA Interface (Black cable)

Red	+VDC
Blue	GND
Green	Media (card present)
White	Clock
Orange	Data
Yellow	Green LED

Sense Input Wiring

Black	Sense Input 1
Brown	Sense Input 2

Wiegand

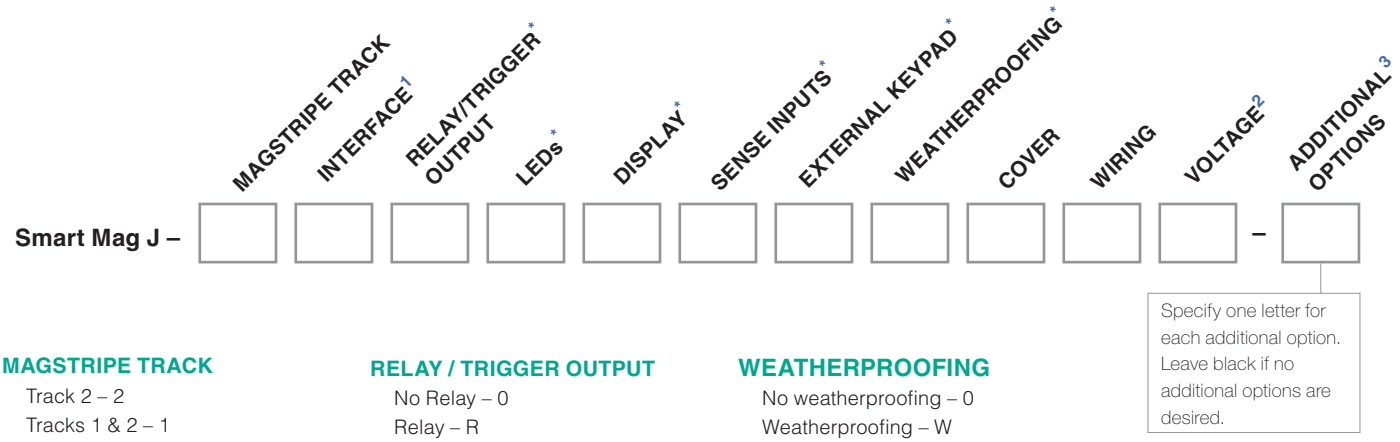
Red	+VDC
Blue	GND
Green	Data 0
White	Data 1
Yellow	Red LED
Orange	Green LED

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 Mag J with a code to indicate options required.



MAGSTRIPE TRACK
- Track 2 – 2
- Tracks 1 & 2 – 1
- Tracks 2 & 3 – 3

INTERFACE
- Rs232 – S[4]
- Rs232 Wedge – A
- TCP / IP – C
- TTL ASCII – T
- INV TTL ASCII – I
- Magstripe Emulation – M[5]
- Wand Emulation – W[5]
- Rs422 – 2[4]
- PC Wedge XT / AT – P
- PC Wedge PS2 – 1
- Wiegand – G[5]
- VT320 Wedge – V
- DTMF – D
- USB – U

RELAY / TRIGGER OUTPUT
- No Relay – 0
- Relay – R
- Trigger Output – T

LEDs
- No LEDs – 0
- Both LEDs – L
- Red LED – R
- Green LED – G

DISPLAY
- No display – 0
- Alphanumeric Display – A

SENSE INPUTS
- No Sense Inputs – 0
- Sense Inputs – S

EXTERNAL KEYPAD
- No External Keypad – 0
- External Keypad Support – K

WEATHERPROOFING
- No weatherproofing – 0
- Weatherproofing – W

COVER
- #6 – 6
- 3mm – M

WIRE EXIT
- Rear – R
- Side – S
- 6-pin rear modular jack – 6

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

ADDITIONAL OPTIONS
- Noryl (chemical resistant case) – N
- Isolated Relay – IR

*Options at additional cost

[1]USB, TCP, DTMF & VT320 additional cost

[2]12V, 24V & POE additional cost

[3]Noryl additional cost

[4]Serial units may be reprogrammed for network / protocol mode.

[5]Units may be specially ordered to support all three emulation modes.

Examples

Examples of ordering codes for Smart Mag J in popular interfaces.

Wiegand Interface

Smart Mag J–2G0L000W6R2

Smart Mag J with:
- Track 2 – 2
- Wiegand – G
- 2 LEDs – L
- Weatherproofing – W
- #6 Mounting – 6
- Rear wire exit – R
- 12V DC supply – 2

Rs232 Interface

Smart Mag J–1SRL00006R2

Smart Mag J with:
- Tracks 1 & 2 – 1
- Rs232 Interface – S
- Relay – R
- 2 LEDs – L
- #6 Mounting – 6
- Rear wire exit – R
- 12V DC supply – 2

TCP / IP Interface

Smart Mag J–2CRL000W6RP

Smart Mag J with:
- Track 2 – 2
- TCP / IP – C
- Relay – R
- 2 LEDs – L
- Weatherproofing – W
- #6 Mounting – 6
- Rear wire exit – R
- POE – P

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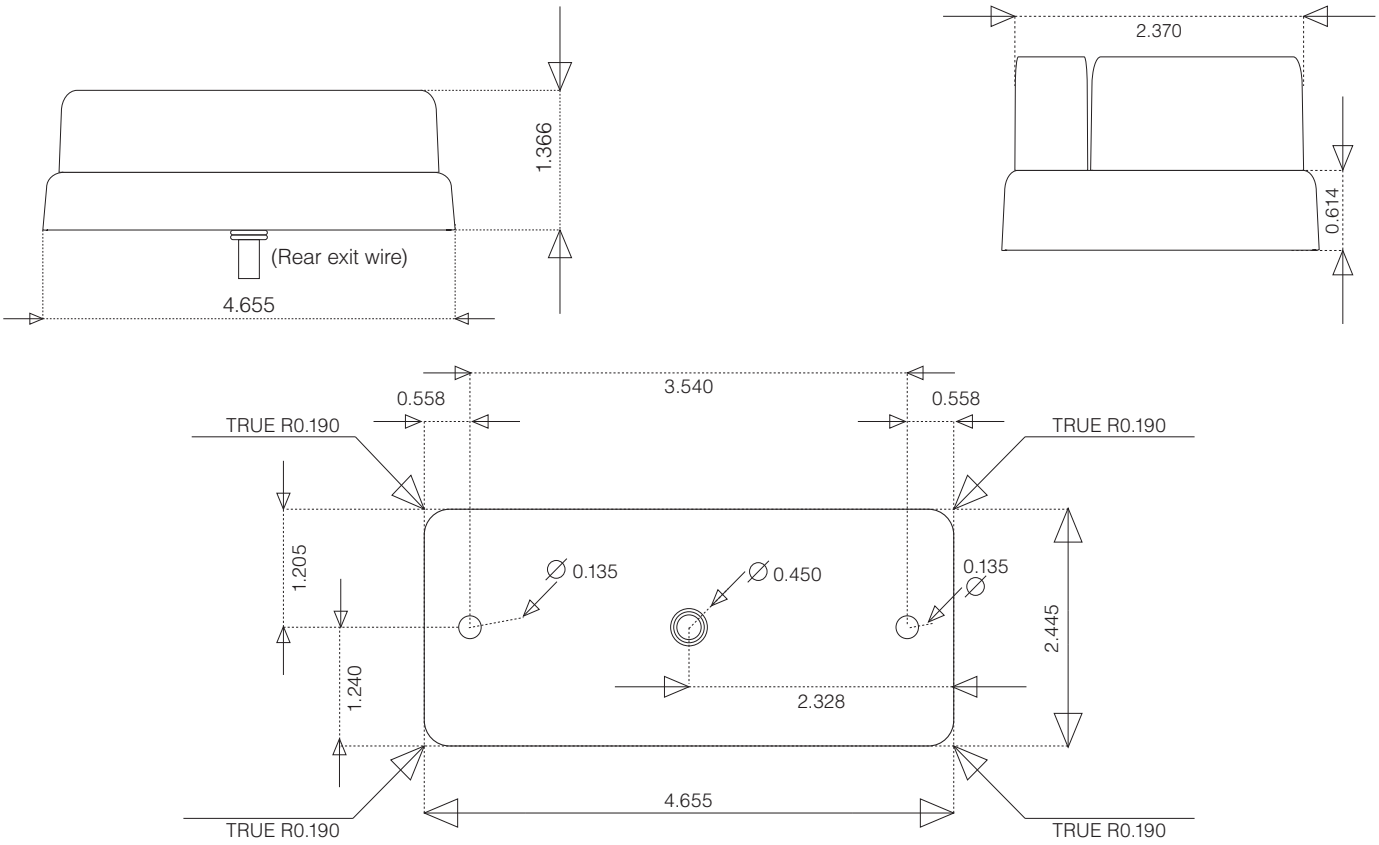
Dimensional Diagrams

Dimensional Measurements for the Smart Mag J.



Notes for Ordering Smart Mag J Readers

POWER

Standard J 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 contain a separate wire for the 2 sense inputs. 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, or red and green LEDs.

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.