

Smart Mag SA

For stand alone Access Control



The Smart Mag SA is a stand alone magstripe reader with internal memory and an internal timeclock. It is available as a fixed mount or portable reader. The fixed mount reader contains an internal relay which is used for door control. The portable version is meant for use at monitored stations such as guard shacks, and uses LEDs to signal access granted or denied. Access is controlled by validation of badge numbers stored in the internal memory of the reader. Valid numbers can be downloaded into the reader from a PC or scanned into the reader by hand.

Features & Options

- Programmable LEDs
- Character masking (insertion & deletion)
- Tracks 1, 2 or 3
- 5V, 12V, or 24V operation
- Networking
- Time display
- Scheduling
- Good read beep
- Internal Relay
- Power over ethernet
- Weatherproofing
- Reads Kronos & CAC cards
- Portable version available

Interfaces

- Rs232
- TCP / IP
- Rs422
- USB


International Bar Code

Specifications

Magnetic Stripe:	Tracks 1, 2 or 3 (high or low density / high or low coercivity)
Reading Direction:	Bi-directional
Interfaces:	Rs232, Rs422/485, TCP / IP, USB
Good Read Beep:	Programmable
Slot Width:	0.050" (1.27mm)
Power Consumption ¹ :	5V 150mA typical 250 max / 12V 90mA typical 140 max / 24V 45mA typical 80 max / POE 90mA
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	7oz (198.5g)
Read Height:	.4" standard (1.02cm) / .465 (1.19cm) (optional)
Indicators	2 programmable LEDs
Relay ²	500 MA, 35V DC / 1 common lead / 1 lead normally closed / 1 lead normally open
Light Source:	630nm visible / 940nm infrared
Temperature	-40°C to +85°C
Standard Wiring:	3ft (91.5cm) cable with DB9 female (RS232), flying leads (RS422) or RJ45 (TCP / IP) / 3ft cable for relay
Memory:	64K standard / 256K (optional)
Displays:	8 character alpha display (optional)

¹Maximum 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.

²POE 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

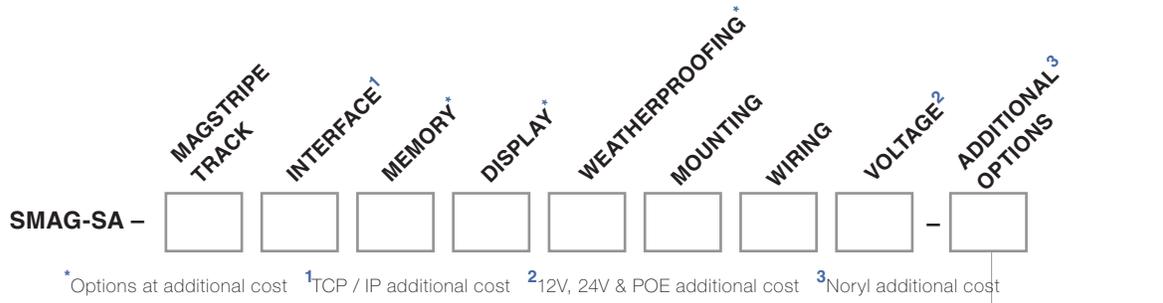
Relay Wiring¹

Yellow Normally Closed
 Green Normally Open
 Red Common

Rs422 Interface

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

¹For 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**.



MAGSTRIPE TRACK

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

INTERFACE

- Rs232 – S⁴
- Rs422 / 485 – 2⁴
- TCP / IP – C

MEMORY

- 64K – 1
- 256K – 5

DISPLAY⁵

- No display – 0
- Alphanumeric display – A

WEATHERPROOFING

- No weatherproofing – 0
- Weatherproofing – W

MOUNTING

- #6 – 6
- 3mm – M

WIRING

- Rear – R
- Side – S
- Internal battery (portable) – I
- Side internal jacks (portable) – J
- Internal battery / External AC – A
- Rear exit with side headset jack⁶ – 4

VOLTAGE

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

ADDITIONAL OPTIONS

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

Specify one letter for each additional option. Leave blank if no additional options are desired.

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

⁵Display not available with portable versions.

⁶4 Position side headset jack available for communications on fixed mount units only. Power and relay wiring remains in the rear.

Examples

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

Rs232

SMAG-SA-2S10W6R2

- Smart Mag SA with:
- Track 2 – 2
 - Rs232 – S
 - 64K Memory – 1
 - No display – 0
 - Weatherproofing – W
 - #6 Mounting – 6
 - Rear wire exit – R
 - 12V DC supply – 2

TCP / IP

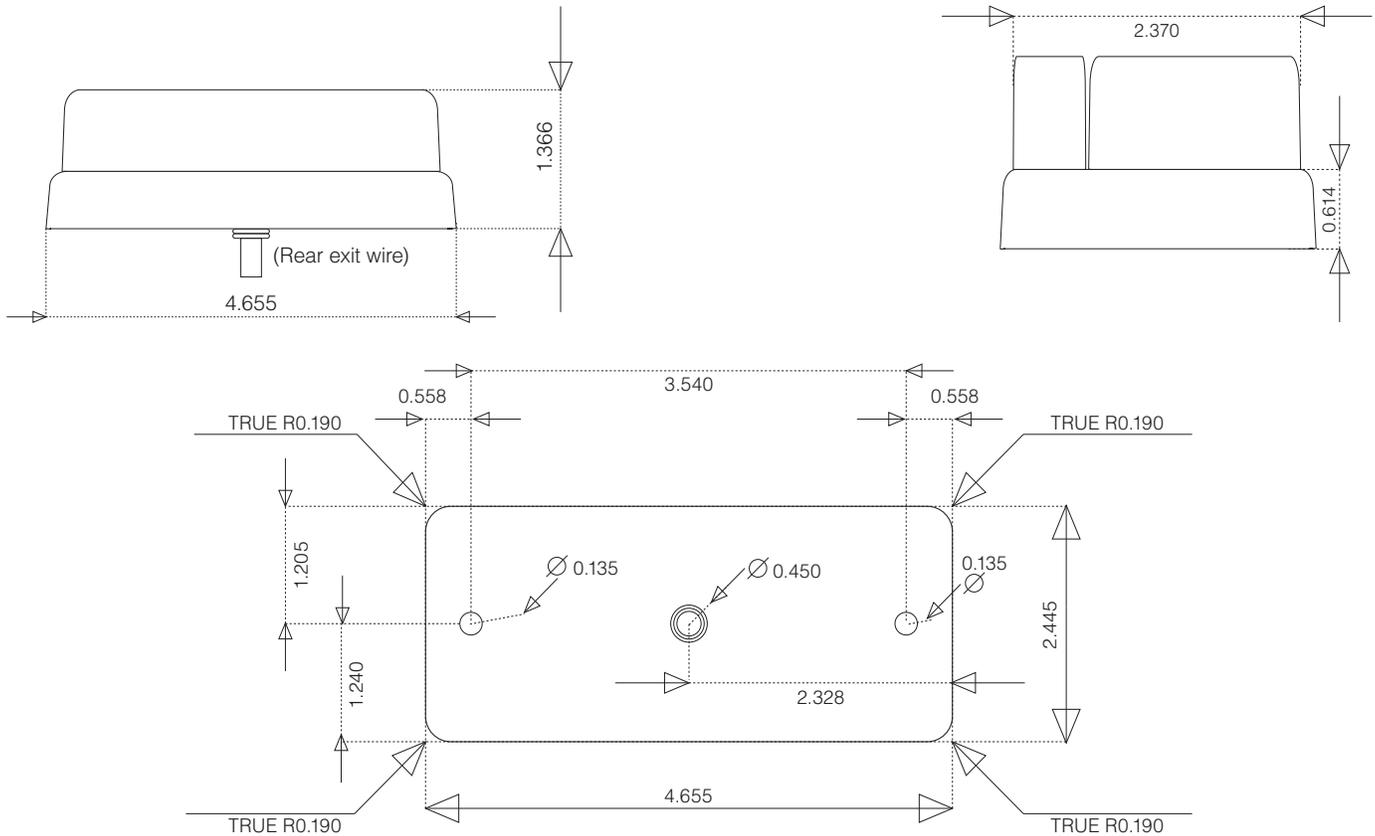
SMAG-SA-2C50W6R2

- Smart Mag SA with:
- Track 2 – 2
 - TCP / IP Interface – C
 - 256K Memory – 5
 - No display – 0
 - Weatherproofing – W
 - #6 Mounting – 6
 - Rear wire exit – R
 - 12V DC supply – 2

Rs232 Portable

SMAG-SA-1S1006I

- Smart Mag SA with:
- Track 1 – 1
 - Rs232 – S
 - 64K Memory – 1
 - No display – 0
 - No weatherproofing – 0
 - #6 Mounting – 6
 - Internal battery – I



Notes for Ordering Smart Mag SA

POWER

Standard SA and STA series readers are powered with 5V DC, 12V DC, 24V DC and POE are optional.

WIRING

Readers can be ordered with a side wire exit or rear wire exit. 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 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.

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. For custom wiring or firmware contact IBC.

RELAY

SA and STA readers 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.

PORTABLE

Portable SA and STA readers can be ordered with a DC power jack on the side, an internal 9-volt battery housing, or both. When ordered with a DC power jack, you can connect an AC adaptor for power, or connect a 9 volt battery using a short adapter cable. The AC adaptor and cable are provided. If ordered with the internal 9 volt battery housing, the reader is powered by an internal replaceable 9-volt battery. Readers may be ordered with both options, allowing use with either the internal

battery, or AC adaptor. All portable versions contain a jack for serial communications and a serial cable is provided.

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.