



Maximum RFID



SP-6820™ Sentinel-Prox™ Proximity Reader

AWID's SP-6820 Proximity Card Reader is a switchplate-type reader that combines exceptional reading distance and easy mounting directly on a single-gang box. With a read range up to 8 inches, the SP-6820 reader delivers excellent performance without compromising quality, durability, attractive appearance, and ease of installation.

Installation The SP-6820 reader is designed to fit perfectly on a single-gang electrical utility box. The metal-compensation that is built into every SP-6820 reader assures minimal loss of read range when the reader is mounted on a metal surface. The SP-6820 reader also can be fastened by 2 screws on any wall or other surface.

Features The SP-6820 reader contains (a) a 3-color LED, (b) a 4 kilohertz beeper, and (c) a "hold" circuit. Both LED and beeper are controlled by the reader itself. All three functions can be controlled externally by the host system. The LED can indicate access-granted by the host. The beeper can be used as an alarm that prevents further card readers until the

alarm condition is cleared. The "hold" circuit delays code transmission from the reader until the host requests it.

Testing The reader is *self-testing* – using its own LED and beeper, it needs no interface to a controller to assure the installer and cardholder of correct performance. The reader is also *self-diagnostic* – if DC power is unstable, or if electrical noise is induced in the cable, the reader resets and its LED changes to amber.

Operation AWID's proximity readers use a re-present mode that requires that the user remove the card from the reader's field before the card can be read again. This feature eliminates multiple reads from a single presentation of the card. The SP-6820 has both Wiegand data interface for basic 4-wire connection (7 wires when all features are controlled), and also RS-232 serial interface. Code transmission from both interfaces is simultaneous.

Environment The SP-6820 reader is ready for installation indoors and outdoors.* The ABS plastic enclosure, quickly installed when its cover is removed, provides a secure package when the cover is snapped on the base. Epoxy resin potting protects the electronic circuits.

Credentials All of AWID's 125 kilohertz proximity credentials may be used with the SP-6820 reader. This includes clamshell and graphics-quality cards, keytags, hangtags, and adhesive wafers. Read range varies with the credential type.

FEATURES

Convenient size...

Fits like a cover plate on a box or wall

Clean, handsome design...

Matches good architecture at site

Ready for heavy use at all sites...

Non-contact reading of cards and tags

Perfect for wall, cabinet, single-gang box...

Strong two-part ABS plastic enclosure

Easy mounting...

2 screws match holes in a utility box

Special read range in a small unit...

Up to 8 inches with cards

Visual and audible indicators...

3-color LED and beeper inside reader

Controllable functions in reader...

LED, beeper, hold can be wired to panel

Easy power...

Connects to panel's DC terminals

Quick wiring to host panel...

Basic 4-wire hook-up; 7 wires maximum

Standard Wiegand data output...

Data-0 & Data-1 panel connection

Alternative RS-232 data output...

Interface to PC or special controller

Uniform code format...

Standard 26-bit plus special codes

No programming in reader...

SP-6820 is ready to read all AWID codes

Self-testing for good operation...

LED & beeper indicate performance

High value ratio...

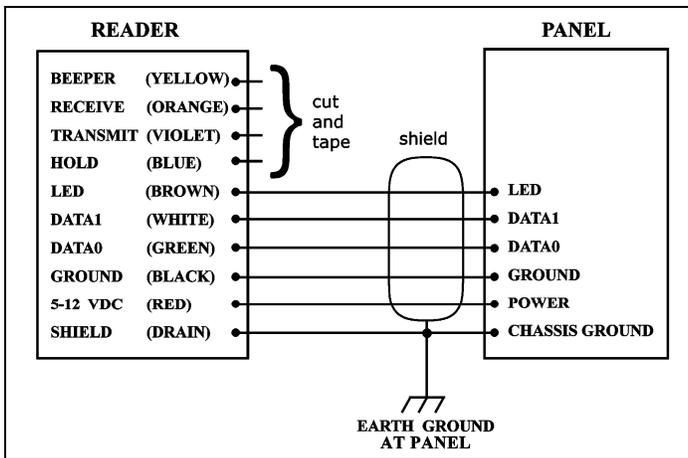
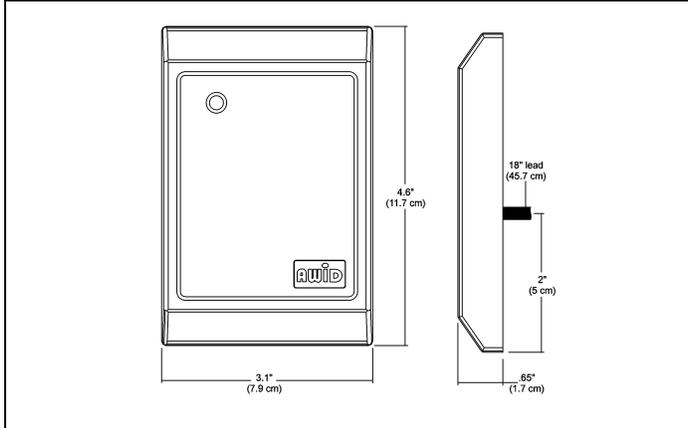
Excellent performance; modest cost



(* NOTE: IF EXPOSED TO RAIN OR SNOW, UNIT MUST BE PROTECTED BY SUITABLE HOUSING.

SP-6820TM

Sentinel-ProxTM Proximity Reader



ACCESSORIES AND SUPPLIES

Mounting hardware – 2 #6-32 x 1" machine screws (supplied). Use other fasteners as needed for mounting.

Power supply – Reader operates with voltage between +5 volts and +12 volts DC. Most controller panels provide suitable voltage on power and ground terminals. External linear, regulated DC power supply may be used (200 mA or more current rating).

Cable for power and data – 22 gauge, stranded, color-coded, overall shielded, not twisted pair. 4 to 7 conductors depending on connection of reader's controllable functions (LED, beeper and "hold"). For Wiegand, up to 500 feet long.

Protective housing – SP-6820 reader is suitable for outdoor installation in most cases. If a reader is to be removed from direct precipitation, view or abuse, install the reader inside a Lexan housing. AWID suggests The Housing Company's Model PCH049 housing.

Installation Sheet – Download full instructions from AWID's web site <http://www.awid.com>.

CREDENTIALS

Proximity cards, keytags, hangtags and wafers – AWID offers a selection of cards, tags and wafers for use with the SP-6820 reader.

OPERATING CHARACTERISTICS

Reading Distance:

With cards – Up to 8 inches (20 cm)
(varies with mounting or housing, voltage applied to reader, and credential type)

Excitation Frequency:

Transmit and Receive - 125 kHz

Antenna Output:

Omni-directional low-frequency RF field

Indicators (Control by Reader and Panel):

LED – 3 colors, red-amber-green
Beeper – piezo-electric, 4 kHz tone

Power Supply:

+5 volts to +12 volts DC \pm 10%, linear, regulated
Current: 120 mA at 5 V; 200 mA at 12 V

Communication Protocols:

Wiegand electrical interface
RS-232 serial interface

Code Formats:

Determined by AWID's credentials programmed with 26 bits to 50 bits

Cable (for Wiegand Interface):

4 to 7 conductors (not twisted pairs), stranded, 22 gauge, color-coded, overall 100% shielded, plastic jacket, up to 500 ft

PHYSICAL CHARACTERISTICS

Dimensions:

4.6 x 3.1 x 0.65 inches (11.7 x 7.9 x 1.7 cm)

Weight:

8 ounces (227 g)

Material:

ABS 2-part enclosure, beige or dark gray color
Epoxy resin potting on electronics

Cable (Integrated with Reader):

10 conductors, 22 gauge, 18 inches long.
Overall shielded, gray plastic jacket

Mounting:

Single-gang utility box, wall, cabinet

ENVIRONMENT

Operating Temperature:

-31° F to 150° F (-35° C to 65° C)

Operating Humidity:

0% to 95% non-condensing

Protection from Environment:

Use Lexan housing when reader must be away from rain, snow, view or abuse'

Avoiding Interference:

Optimize reader performance by spacing or shielding reader from neighboring readers.

CERTIFICATION

ISO-9001:2000; FCC Part 15; IC; UL listed



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