

## MM-6800™ Sentinel-Prox™ Proximity Reader

MM-6800 Proximity Card Reader provides exceptional reading distance in a slim, compact enclosure for Access Control applications. With a read range up to 8 inches, the MM-6800 reader delivers excellent performance without compromising quality, durability, attractive appearance, and ease of installation.



**Installation** The MM-6800 reader is designed to fit perfectly on the 1-3/4 inch standard metal door frame or window mullion. The metal-compensation that is built into every MM-6800 reader assures minimal loss of read range when the reader is mounted on a metal surface. The MM-6800 reader also can be fastened by 2 screws on any wall or other surface. Installation may be indoors or outdoors, exposed to weather.

**Features** The MM-6800 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 reads 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 MM-6800 reader 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 MM-6800 reader is ready for challenging applications. The ABS plastic one-part enclosure, fully potted at the back surface with epoxy resin, stands up to physical abuse and adverse environment.

**Credentials** All of AWID's 125 kilohertz proximity credentials may be used with the MM-6800 reader. This includes clamshell and graphics-quality cards, keytags, hangtags, and adhesive wafers. Read range varies with the credential type.

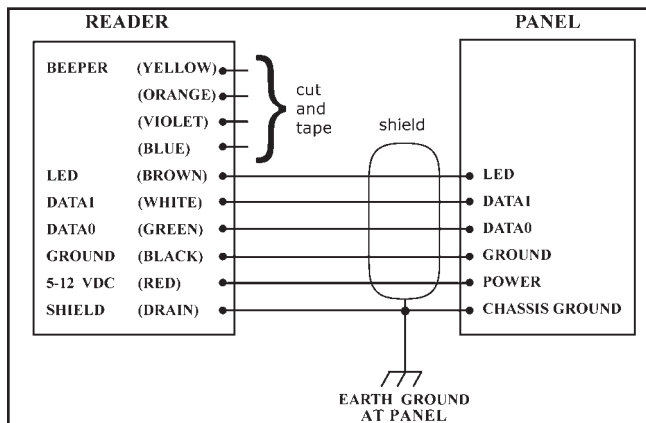
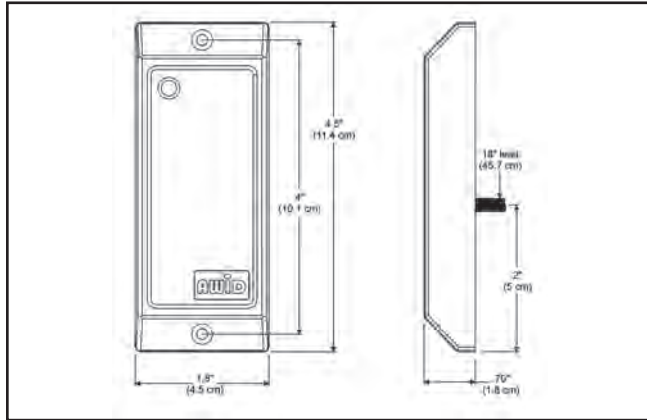


### FEATURES

- Compact size . . .  
*Fits on a mullion or door frame*
- Clean, slim design . . .  
*Matches good architecture at site*
- Ready for rough usage . . .  
*Rugged, strong construction*
- Ready for adverse weather . . .  
*One-part enclosure with potting*
- Easy mounting . . .  
*2 screws (supplied) for fastening*
- Special read range in a small unit . . .  
*Up to 8 inches with cards*
- Visu AWID's al 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 connections*
- Alternative RS-232 data output . . .  
*Interface to PC or special controller*
- Compatible with other readers . . .  
*Wiegand interface used in other readers*
- Uniform code formats . . .  
*Standard 26-bit plus special codes*
- No programming in reader . . .  
*MM-6800 is ready to read all AWID codes*
- Self-testing for good operation . . .  
*LED & beeper indicate performance*
- High value ratio . . .  
*Excellent performance; low cost*

# MM-6800™

## Sentinel-Prox™ Proximity Reader



### ACCESSORIES & SUPPLIES

**Mounting hardware** – 2 #6-32 x 1" thread-cutting 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 (120 milliamperes 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** – MM-6800 reader is suitable for exposure to rain, snow, and bright sunshine. Mount reader inside a Lexan housing to remove reader from view and abuse. AWID suggests Model PCH049 housing from The Housing Company.

**Mounting devices** – Consult with supplier for utility boxes, adapter plates, poles, posts, pedestals, bollards, etc.

**Installation Sheet** – Download full instructions from AWID's Web site.

### CREDENTIALS

**Proximity cards, keytags and wafers** – AWID offers a selection of cards, tags and wafers for use with the MM-6800 reader.

### OPERATING CHARACTERISTICS

#### Reading Distance:

With cards – Up to 8 inches (varies with mounting method, 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 rating 120 mA or more

#### Communications 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 sheath, to 500 ft

### PHYSICAL CHARACTERISTICS

#### Dimensions:

6.0 x 1.75 x 1.0 inch (15.24 x 4.45 X 2.54 cm)

#### Weight:

6 ounces (170 g)

#### Material:

ABS 1-part enclosure, beige or dark gray  
Epoxy resin potting at rear surface

#### Cable (Integrated with Reader):

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

#### Mounting:

Door frame, window mullion, wall, cabinet

### ENVIRONMENT

#### Operating Temperature:

-31 to +150 F (-35 to +65 C)

#### Operating Humidity:

0% to 95%, non-condensing

#### Protection from Environment:

Use Lexan housing when reader must be removed from view or protected from damage.

#### Avoiding Interference:

Optimize reader performance by spacing or shielding reader from neighboring readers, including reader on other side of wall at door.

### CERTIFICATION

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

Applied Wireless Identifications Group, Inc.  
18300 Sutter Blvd.  
Morgan Hill, CA 95037  
Tel: (408) 825-1100  
Fax: (408) 782-7402  
[www.awid.com](http://www.awid.com)