AWiD

Maximum RFID

KP-6840™
Sentinel-Prox™
Proximity Reader/Keypad

AWID's KP-6840 Proximity Card and Keypad Reader is a switchplate-type reader combined with a 12-key numeric keypad, in a unit that fits on a single-gang box. Read range with cards is up to 8 inches. The keypad may be used for PIN entry, programming a controller, enrolling card codes, and general data entry.

Installation   The KP-6840 reader is designed to fit perfectly on a single-gang electrical utility box. The metal-compensation that is built into every KP-6840 reader assures minimal loss of read range when the reader is mounted on a metal surface. The KP-6840 reader also can be fastened by 2 screws on any wall or other surface.

Features The KP-6840 contains (a) a 3-color LED to indicate successful card read and access-granted, (b) a beeper for attention and alarm, and (c) a "hold" circuit to delay data transmission. LED and beeper are controlled by the reader itself. All three functions can be controlled externally by the host system.

Programming The installer programs these items - (a) In the KP-6840, keypad output format, either 4-bit or 8-bit key-bursts, or 26-bit code transmission (like a reader with a 26-bit card). (b) In the KP-6840 if the keypad has 26-bit output, the facility code that the customer requests. (c) In the system's computer, the KP-6840's Operation Mode.

Testing The reader is *self-testing* – the LED and beeper alone 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   The card reader uses a re-present mode that requires that the user remove the card from the reader's field before the card can be read again. The card reader has both Wiegand and RS-232 outputs. The keypad has only Wiegand output. Code transmission from both interfaces is simultaneous. The card reader and keypad outputs share the same data wires.

Environment The KP-6840 reader is ready for installation indoors. For outdoor use* protect the KP-6840 by a hood that keeps water off the unit. If temperature is *below freezing*, use a housing with hinged cover over the keypad. The reader's ABS plastic enclosure is secure when its cover is on. The unit has epoxy resin over its circuits.

Credentials All of AWID's proximity credentials may be used with the KP-6840 reader. This includes clamshell and graphic cards, keytags, hangtags, and wafers. Read range varies with the credential type.

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

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; enter key-strokes on same reader unit

Perfect for wall, cabinet, single-gang box...
Strong two-part ABS plastic enclosure

Easy mounting...
2 screws match holes in 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

Keypad output to match host system...
Field programmable - 4-bit, 8-bit or 26-bit

No programming in card reader...
KP-6840 is ready to read all AWID codes

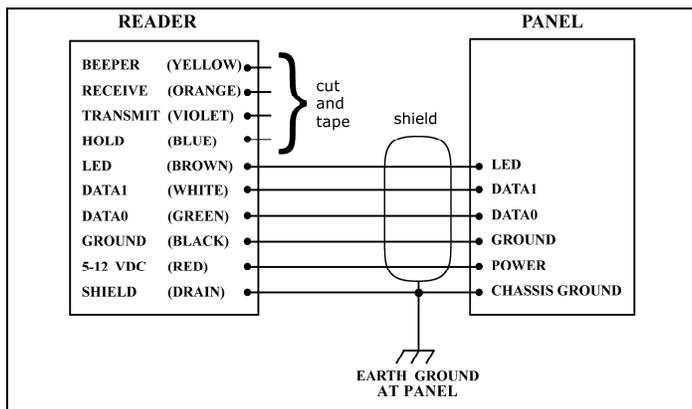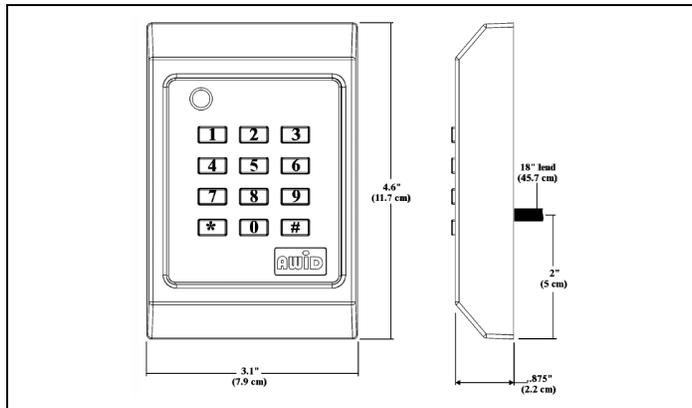**Flexible application for same unit...**
Reader + PIN, reader alone, PIN alone

All Operation Modes are available...
Determined by system's programming

High value ratio...
Excellent performance; low cost

KP-6840™

Sentinel-Prox™ 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 – KP-6840 reader-keypad is suitable for outdoor installation if not subject to rain or snow or lawn sprinklers. If temperature is always above freezing, mount reader inside a plastic hood or shield with an open front for access to the keypad. If temperature is below freezing, have hinged door over the keypad to assure that the keys remain clear. AWID suggests The Housing Company's Model PCH049; its hinged door is easily removed or replaced.

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

CREDENTIALS

Proximity cards, keytags and wafers – AWID offers a selection of cards, tags and wafers for use with the KP-6840 reader. All credentials for the KP-6840 must be AWID's products.

Ask AWID about credentials. Download the product sheet with cards, keytags, hangtags, and adhesive wafers for all of AWID's proximity readers.

OPERATING CHARACTERISTICS

Reading Distance:
   With cards – Up to 8 inches (20 cm)
   (varies with mounting or housing, voltage applied to reader, and credential type)
Reader 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, linear, regulated
   Current rating: 200 mA or more
Communication Protocols:
   Wiegand electrical interface (for reader & keypad)
   RS-232 serial interface (for reader only)
Code Format – Keypad:
   Select 26-bit, or 4-bit or 8-bit bursts
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 0.88 inches (11.7 x 7.9 x 2.2 cm)
Weight:
   8 ounces (227 g)
Material:
   ABS 2-part enclosure, dark gray only
   Epoxy resin potting on reader 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 moisture, sunlight, view or 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; RoHS