KP-6840™
Sentinel-Prox™
Proximity Reader

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   (a) The customer orders the KP-6840 "Revision" that produces keypad data output in either 4-bit or 8-bit key-bursts, or as 26-bit code transmission (like a reader with a 26-bit card). (b) The installer programs the host system for the KP-6840's operation mode.

Operating Modes   The KP-6840 can be used for Card + PIN, PIN + Card, Card Only, or PIN Only. Mode selection is made by programming the host system, not by selection in the KP-6840.

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 before the card can be read again.The KP-6840's 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.
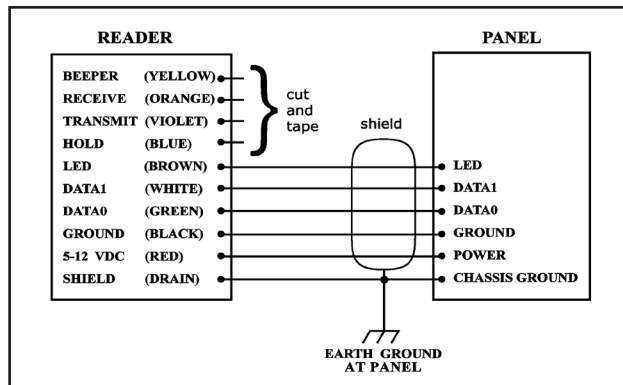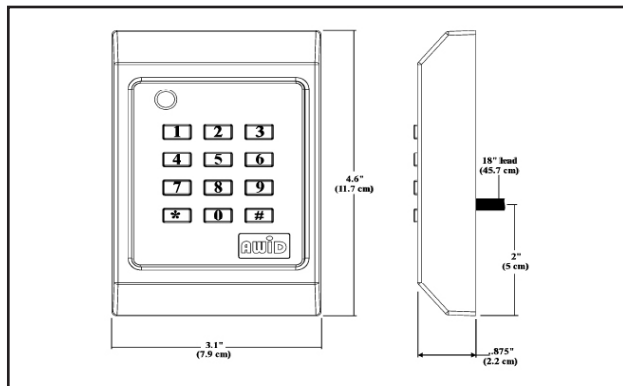
FEATURES

- 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 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 connections

- Alternative RS-232 data output . . .
  Interface to PC or special controller

- Uniform code formats for card reader . . .
  Standard 26-bit plus special codes

- Keypad output to match host system . . .
  Code may be 4-bit, 8-bit or 26-bit

- No programming in 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

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

KP-6840™

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 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 – 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 a 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.

OPTIONAL

To designate optional HID compatibility, add "MP" suffix to the part number (e.g. KP-6840-GR-MP).

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 and cover, 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 ± 10%, linear, regulated; current rating 200 mA or more

Communications Protocols:
Wiegand 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 sheath, to 500 ft

PHYSICAL CHARACTERISTICS

Dimensions:
4.6 x 3.1 x 0.88 inch (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 sheath

Mounting:
Single-gang utility box, wall, cabinet

ENVIRONMENT

Operating Temperature:
-31 to +150 F (-35 to +65 C)

Operating Humidity:
0% to 95%, non-condensing

CERTIFICATION

ISO-9001:2000; FCC Part 15; IC; CE mark; UL Listed; RoHS compliant

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