

iCLASS

R90 Long Range Reader

Contactless Smart Card Reader
6150 • Read Only • Long Range

HID's *iCLASS*® Long Range Reader is ideal for installations incorporating parking control and long read range applications. The *iCLASS* Long Range Reader packages all the electronics in one rugged, attractive, and easy-to install housing.

Using the 13.56 MHz technology platform, the *iCLASS* R90 read only contactless smart card long range reader combines the longer read range of proximity with the power and heightened security of smart card technology, making it ideal for access control applications.

iCLASS smart readers and cards make access control more powerful, more versatile, and most importantly, offer enhanced security through encryption and mutual authentication.

At the same time, *iCLASS* is user-friendly, delivering the convenience, affordability, and reliability of proximity technology, for which HID is known worldwide.

Featuring crisp architectural styling, the reader has an elegantly curved faceplate. The high intensity LED provides clear, visual feedback even in direct sunlight. Distinct tone sequences indicate status conditions.

Experience enhanced versatility:

- Long read range distance (up to 18 inches or 45 centimeters).
- Auto tuning for more consistent read ranges.
- Reads all HID *iCLASS* and ISO15693 compatible (CSN) credentials.
- Use one reader to read standard proximity format data from HID *iCLASS* credentials.
- "Parking Hold" feature allows connection to a loop detector to ensure accurate detection of vehicles in parking lanes.
- With a multicolor LED and beeper which can be controlled internally or at host.
- Two R90 units can operate one meter apart for "HI-LO" truck and car installations.
- Wiegand output easily interfaces with most existing Wiegand protocol access control panels.

Appreciate advanced security:

- All RF data transmission between the card and reader is encrypted using a secure algorithm.
- By using industry-standard encryption techniques and advanced key management systems, *iCLASS* reduces the risk of compromised data or duplicated cards.

Be secure in knowing:

- *iCLASS* complies with the ISO 15693 standard for contactless smart card technology. Standards are important in smart card technology because they make it possible for many equipment and application developers to work with the smart card technology and create a broader range of uses for the card.
- *iCLASS* technology can extend the use of your access control credential into other applications today and tomorrow.

iCLASS[®] by

Smart • Powerful • Trusted



iCLASS[®] R90 Long Range Reader

Contactless Smart Card Reader

HID

Features

Security

64-bit authentication keys are extremely secure. Readers and cards require matching keys to function. All RF data transmission between the card and reader is encrypted, using a secure algorithm. The key management system reduces the risk of compromised data or duplicated cards.

The R90 includes a tamper switch to provide electronic notification of reader tampering.

Programming/Configuration

Key management is made easy! All cards are shipped with unique diversified keys, and readers are shipped with compatible keys. All keys are derived from the HID Standard transport key. While cards and readers with Standard keys are interchangeable, the keys are highly secure, and cards can be made unique by ordering with *iCLASS* Elite formatting.

Diagnostics

On reader power-up, an internal self-test routine checks and verifies the setup configuration, determines the internal or external control of the LED and beeper, and initializes the reader's operation.

Easily Interfaced

The reader's Wiegand output easily interfaces with most existing Wiegand protocol access control panels. The reader reads standard proximity format data from HID *iCLASS* cards and will output data as encoded.

Card Compatibility

The *iCLASS* R90 long range reader is compatible with all *iCLASS* credentials meeting the following ISO standard:

- 15693 - read only; 2k bit (256 Byte), 16k bit (2k Byte), and 32k bit (4k Byte) *iCLASS* credentials
- 15693 - read only card serial number (CSN)

Audiovisual Indication

Audio transducer provides various tone sequences to signify access granted, access denied, power up, and diagnostics. Visually impaired cardholders can easily distinguish between access granted and access denied.

When an *iCLASS* card is presented to the reader, the red LED flashes green and the beeper sounds. The multicolor LED and beeper can also be controlled individually by the host system.

Mounting

Reader body fits onto base mounting plate. Cover fits over reader body, secured with four screws. Mount on metal with minimal read range impact.

Indoor/Outdoor Design

Rugged, weatherized polycarbonate enclosure, designed to withstand harsh environments, provides reliable performance and resistance to vandalism.

Warranty

Warranted against defects in materials and workmanship for life. (See complete warranty policy for details.)

Part Numbers

Base Part Number: 6150

Description

Long range reader, read only, Wiegand output

Options:

Color - Black
Key Management – Standard or Custom
Standard Termination – Terminal
Programmable LED/Beeper operation
Custom label (Please see "How to Order Guide" for a description of the options and associated part numbers.)

Specifications

Typical Maximum Read Range*

18" (45 cm) with HID *iCLASS* Card (2k card)
9" (22.9 cm) with HID *iCLASS* Key
9" (22.9 cm) with HID *iCLASS* Tag
16" (40.6 cm) with HID *iCLASS* Prox

*Dependent upon installation conditions.

Please note that all *iCLASS* credentials are available in either a 2k bit (256 Byte), 16k bit (2k Byte) or 32k bit (4k Byte) configuration.

Dimensions

12" (30.48 cm) x 12" x 1.25" (3.175 cm)

Material

UL94 Polycarbonate

Power Supply

12 - 24 VDC reverse voltage protected
Linear supply recommended

Current Requirements (Avg/Peak)

12 VDC (480/1800 mA)
24 VDC (230/900 mA)

Operating Temperature

-31° to 150° F (-35° to 65° C)

Operating Humidity

5% to 95% relative humidity non-condensing

Weight

60 oz. (1.86 kgm)

Transmit Frequency

13.56 MHz

Certifications

FCC Certification
CE Mark (Europe), New Zealand, Australia c-Tick

Pending Certifications

Canada Certification
Taiwan, Singapore, Germany VdS

Cable Distance

Wiegand Interface - 500 feet (150 m)
Recommended cable is ALPHA 1295 (22AWG)
9-conductor stranded with overall shield or equivalent.
Additional conductors may be required to connect all outputs.

Specifications subject to change without notice.

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