



# LECTUS secure 9000 WI

ARD-SER90-WI (R90)



**BOSCH**

|           |                      |
|-----------|----------------------|
| <b>en</b> | INSTALLATION         |
| <b>es</b> | INSTALACIÓN          |
| <b>fr</b> | INSTALLATION         |
| <b>zh</b> | 安装                   |
| <b>pt</b> | INSTALAÇÃO           |
| <b>de</b> | INSTALLATION         |
| <b>it</b> | INSTALLAZIONE        |
| <b>ko</b> | 取り付け                 |
| <b>jp</b> | 설치                   |
| <b>ru</b> | Техника безопасности |



# 1 Safety Instructions

## 1.1 DE - Sicherheitshinweise

- Lesen, beachten und befolgen Sie Anweisungen: die ganze Sicherheit- und Bedienungschrift muss gelesen und korrekt befolgt werden, bevor die Einheit in Betrieb genommen wird. Verwahren Sie die Anweisungen für zukünftige Referenzen.
- Berücksichtigen Sie alle Warnungen - Befolgen Sie alle Warnungen auf der Einheit und in der Bedienungschrift.
- Strom-Quellen - Betreiben Sie die Einheit nur mit den empfohlenen Strom-Quellen. Wenn Sie unsicher sind, ob Sie eine spezielle Energieversorgung gebrauchen können, wenden Sie sich an Ihren Händler.



### Warning!

#### Gefahr der Beschädigung!

Schalten Sie immer die Stromversorgung des Gerätes ab, bevor Sie Änderungen an der Installation vornehmen.  
Stecken oder trennen Sie keine Verbindungen, Datenkabel oder Schrauben während die Stromversorgung eingeschaltet ist.



### Warning!

#### Gesundheit und Sicherheit

Die Installation muss unter Beachtung der lokalen Feuerschutz-, Gesundheits- und Sicherheitsrichtlinien erfolgen. Eine gesicherte Tür, die Teil eines Fluchtweges ist, muss installiert werden mit:
 

- ... einem störungsfreien Schloss. Die Tür muss bei Stromausfall freigegeben werden. Idealerweise ist ein Magnetschloss zu verwenden.
- ... einer manuellen Entriegelung bei standardmäßig geschlossenen Türen, so dass im Notfall das störungsfreie Schloss sofort stromlos gemacht werden kann.



### Warning!

#### Gefahr der Beschädigung!

Schützen Sie das Gerät vor elektrostatischer Entladung. Indem Sie die ESD-Anweisungen vor dem Auspacken oder Berühren der Stecker und der Elektronik beachten.

## 1.3 ES - Instrucciones de seguridad

- Lea, siga y conserve las instrucciones: todas las Instrucciones de seguridad y funcionamiento deben leerse y seguirse adecuadamente antes de poner en funcionamiento la unidad. Conserve las instrucciones para futuras consultas.
- No ignore las advertencias: respete todas las advertencias de la unidad y de las instrucciones de funcionamiento.
- Fuentes de alimentación: utilice la unidad sólo con el tipo de fuente de alimentación indicado en la etiqueta. Si no está seguro del tipo de fuente de alimentación que debe utilizar, consulte al distribuidor o a la compañía eléctrica.



### Warning!

#### Riesgo de posibles daños al equipo

Antes de realizar cambios en la instalación, desconecte siempre el dispositivo AMC2. No conecte ni desconecte los conectores de enchufe, los cables de datos, ni los conectores roscados mientras el dispositivo está encendido.



### Warning!

#### Salud y seguridad

La instalación del dispositivo AMC2 debe realizarse conforme a las regulaciones sobre incendios, salud y seguridad locales. La instalación de una puerta de seguridad que forme parte de una vía de escape de una zona debe disponer de:
 

- Un bloqueo a prueba de fallos (A). De modo que la puerta quede abierta en caso de que falle la alimentación. Se recomienda el uso de un bloqueo magnético.
- Un sistema de desbloqueo de emergencia alternativo (B) que desactive inmediatamente el bloqueo a prueba de fallos mediante una palanca o la ruptura de un cristal.



### Warning!

#### Riesgo de daño

Para evitar causar daños por descargas electrostáticas al hardware, siga las Instrucciones de ESD antes de desembalar o tocar los conectores o los componentes electrónicos.

## 1.2 EN - Safety Instructions

- **Read, follow, and retain instructions** - All safety and operating instructions must be read and followed properly before putting the unit into operation. Retain instructions for future reference.
- **Do not ignore warnings** - Adhere to all warnings on the unit and in the operating instructions.
- **Power sources** - Operate the unit only from the type of power source indicated on the label. If unsure of the type of power supply to use, contact your dealer.



### Warning!

#### Risk of damage to equipment!

Always switch off power of the device before modifying the installation.  
Do not connect or disconnect plug connectors, data cables or screw connectors while power is on!



### Warning!

#### Health and Safety

Installation of the device must comply with any local fire, health and safety regulations. A secured door that may be part of an escape route from an area must be installed with a fail-safe lock (A). So that the door will be released if power fails. Ideally, a magnetic lock should be used.  
A normally-closed break-glass or manual pull (B) in the lock supply wiring, so that in an emergency the fail-safe lock can be immediately powered down.



### Warning!

#### Risk of damage!

Protect the hardware from electrostatic discharge by observing ESD instructions before unpacking or touching connectors or electronics.

## 1.4 FR - Consignes de sécurité

- Lisez, suivez et conservez les instructions - Avant d'utiliser l'appareil, veuillez lire et suivre scrupuleusement l'ensemble des instructions de sécurité et de fonctionnement.
- Conservez ces instructions pour référence ultérieure.
- Respectez les avertissements - Respectez l'ensemble des avertissements figurant sur l'appareil et dans les instructions d'utilisation.
- Sources d'alimentation - Utilisez exclusivement le type d'alimentation indiqué sur l'étiquette. En cas de doute sur le type d'alimentation à utiliser, contactez votre revendeur.



### Warning!

#### Risque d'endommagement de l'appareil !

Éteignez toujours l'appareil AMC2 avant d'en modifier l'installation.  
Ne branchez/débranchez pas les connecteurs mâles, les câbles de données ni les connecteurs à vis lorsque l'appareil est allumé !



### Warning!

#### Santé et sécurité !

L'appareil AMC2 doit être installé conformément à l'ensemble des réglementations locales en vigueur en matière d'incendie, de santé et de sécurité. Vous devez installer une porte sécurisée (pouvant faire partie de la voie d'évacuation d'une zone) équipée des éléments suivants :
 

- Un verrou à sécurité intrinsèque (A). La porte s'ouvrira alors en cas de défaillance de l'alimentation. Utilisez de préférence un verrou magnétique.
- Un avertisseur manuel ou à bris de glace normalement fermé (B) dans le câblage d'alimentation du verrou, de telle sorte que le verrou à sécurité intrinsèque puisse être immédiatement désactivé en cas d'urgence.



### Warning!

#### Risque de dommages !

Protégez le matériel contre des décharges électrostatiques en respectant les instructions ESD avant de débaler ou de toucher les connecteurs ou circuits électroniques.



## Important information

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### **Country of Origin and Production Date**

The label applied under the bottom of the reader housing gives the essential information about country of origin and the production date.

The **Country of Origin** is China.

The **week and year of production** can be read on the left side of the label. Read it according to the code WWYY, i.e. for example "0515" for week 05 in 2015. These four digits are followed by a dash and a six-digit serial number, e.g. 0515-052428.

INSTALACIÓN  
INSTALLATION  
INSTALAÇÃO  
INSTALLATION  
INSTALLAZIONE  
安装  
インストール  
설치  
УСТАНОВКА

**HID**

ACCESS flexibility.

13.56 MHz Contactless

**R90™**

**iCLASS SE®**

INSTALLATION GUIDE

PLT-01051, A.4

## Parts List

COMPONENTES  
PIÈCES  
PEÇAS

KOMPONENTEN  
COMPONENTI  
部件列表

部品  
부품  
КОМПЛЕКТАЦИЯ

## PARTS

- 1 - iCLASS Reader
- 1 - Installation Manual
- 2 - #6-32 x .375" Phillips self-tapping machine screws
- 2 - #6 x .375" Spanner security screw, anti-tamper
- 2 - Terminal connectors for terminal readers
- 1 - Mounting Gasket
- 1 - Back Box

## Recommended

- Cable, 5-9 conductor (Wiegand or clock-and-data), 22 or 24 AWG [65 mm or 51 mm] (pigtail)
- Linear DC Power supply
- Metal or plastic junction box
- Security Tool (for anti-tamper screw) HID 04-0001-03
- Drill
- Mounting Hardware



## LISTA DE COMPONENTES

- 1 - lector iCLASS
- 1 - manual de instalação
- 2 - tornillos mecánicos autoperforantes N.º 6 de 32 x 0,375"
- 2 - tornillo de seguridad N.º 6 contra sabotaje de 0,375" para llave inglesa
- 2 - conectores de borne para lectores de borne
- 1 - guarnición de montaje
- 1 - placa base

## Recomendado:

- Cable, de 5 a 9 conductores (Wiegand o clock-and-data), 22 o 24 AWG [65 mm ou 51 mm] (flexible)
- Fuente de alimentación lineal de CC
- Caja metálica o de plástico para conexiones
- Herramienta de seguridad (para tornillo contra sabotaje) HID 04-0001-03
- Perfore con varias brocas para montaje del hardware
- Montaje del hardware

## LISTE DES PIÈCES

- 1 - Lecteur iCLASS
- 1 - Manuel d'installation
- 2 - Vis mécaniques cruciformes autotaraudeuses N° 6-32 x 0,375 pouce
- 2 - Vis de sécurité inviolable N° 6 x 0,375 pouce
- 2 - Connecteurs de bornier pour lecteurs à bornier
- 1 - Joint plat
- 1 - Support

## Recommandés

- Câble, 5-9 conducteurs (Wiegand ou clock-and-data), 22 ou 24 AWG [65 mm ou 51 mm] (câble)
- Alimentation cc linéaire
- Boîtier de jonction métallique ou plastique
- Outil de sécurité (pour vis inviolable) HID 04-0001-03
- Perceuse avec différentes mèches pour le matériel de fixation
- Matériel de fixation

## 部件列表

- 1 - iCLASS 读卡机
- 1 - 安装手册
- 2 - #6-32 x .375" Phillips 自攻 机制螺钉
- 2 - #6 x .375" 扳手安全螺钉, 防撬
- 2 - 终端读卡机的终端接头
- 1 - 安装垫片
- 1 - 底板

## 推荐

- 电缆, 5-9 导线 (Wiegand 或 clock-and-data), 22 或 24 AWG [65 mm 或 51 mm] (绞编)
- 线性直流电源
- 金属或塑料接线盒
- 安全工具 (用于防撬螺钉) HID 04-0001-03
- 配有各种钻头的钻机, 用于安装硬件
- 安装硬件

## LISTA DE PEÇAS

- 1 - Leitor iCLASS
- 1 - Manual de instalação
- 2 - Parafusos Phillips de auto-rosqueamento para aplicação a máquina n° 6-32 x 0,375 pol.
- 2 - Parafuso de segurança de chave de porca n° 6 x 0,375 pol., anti-vação
- 2 - Conectores do terminal para os leitores do terminal.
- 1 - Vedação de montagem
- 1 - Placa básica

## Recomendado

- Cabo, condutor 5-9 (Wiegand ou clock-and-data), 22 ou 24 AWG [65 mm ou 51 mm] (cabo flexível)
- Alimentação DC linear
- Caixa de junção de metal ou plástico
- Ferramenta de segurança (para o parafuso anti-vação) HID 04-0001-03
- Perfure com várias brocas para montagem do hardware
- Montagem do hardware

## KOMPONENTEN

- 1 - iCLASS Leser
- 1 - Installationsanleitung
- 2 - Kreuzschlitz-Schneidschrauben – US-Größe Nr. 6-32 x 0,375 Zoll
- 2 - Sicherungsschraube – US-Größe Nr. 6 x 0,375 Zoll
- 2 - Anschlussstecker für Leser
- 1 - Grundplatte

## Empfohlene Komponenten

- Kabel, 5-9 Leiter (Wiegand oder clock-and-data), 22 oder 24 AWG [65 mm oder 51 mm], (bewegliches Anschlusskabel)
- Lineares Gleichstromnetzteil
- 1 Montagedichtung
- Verteilerkasten aus Metall oder Kunststoff
- Bohrmaschine mit verschiedenen Bohrern zur Montage
- Montagematerial

## ELENCO PARTI

- 1 - lettore iCLASS
- 1 - manuale di installazione
- 2 - ferro autofilettanti Phillips numero # 6 32 x 0,375 pollici
- 1 - vite di sicurezza antimanomissione Spanner numero 6 x 0,375 pollici
- 2 - morsettiere per terminali lettore
- 1 - guarnizione per montaggio
- 1 - piastra di base

## Consigliati

- Cavo, conduttore 5-9 (tipo Wiegand o clock-and-data), schermato 22 o 24 AWG [65 mm o 51 mm] (a tortiglione)
- Alimentatore lineare c.c.
- Scatola di giunzione metallica o in plastica
- Utensile di sicurezza (per viti antimanomissione) HID 04-0001-03
- Trapano con punte di varie dimensioni per il montaggio
- Accessori per il montaggio

## 部品リスト

- 1 - iCLASSリーダー
- 1 - 取り付けマニュアル
- 2 - #6-32 x .375" セルフ タッピングプラス小ねじ
- 2 - #6 x .375" スパナ用セキュリティねじ、不正開封防止
- 2 - ターミナル リード用ターミナル コネクタ
- 1 - 取り付けガasket
- 1 - ベースプレート

## 推奨

- ケーブル, 5~9芯(Wiegandまたは clock-and-data)、22または24 AWG [65 mmまたは51 mm] (ビゲテール)
- リニア DC 電源
- 金属製またはプラスチック製接続 ボックス
- セキュリティツール(不正開封 防止ねじ用)HID 04-0001-03
- 鉋
- 取り付け金具

## 부품

- 1 - iCLASS 리더기
- 1 - 설치 매뉴얼
- 2 - #6-32 x 0.375인치 (+)형 자동 탭 기계 용 나사
- 2 - #6 x 0.375인치 스패너 안전 나 사, 안티-램퍼
- 2 - 터미널 리더용 터미널 커넥터
- 1 - 설치 개스킷
- 1 - 베이스 플레이트

## 권장 사항

- 케이블, 5-9 커넥터(Wiegand 또는 clock-and-data), 22 또는 24 AWG [65 mm 또는 51 mm] (Pigtail)
- Linear DC 전원 공급장치
- 금속 또는 플라스틱 결합 박스
- 보안 툴 (안티-램퍼용 나사) HID 04-0001-03
- 송곳
- 마운팅 하드웨어

## Комплектация

- 1 - считыватель iCLASS
- 1 - руководство по монтажу
- 2 - самореза #6-32 x 0,375"
- 2 - винт с головкой под спецключ #6 x 0,375" для защиты от несанкционированного вскрытия
- 2 - соединителя для считывателей с клеммами
- 1 - монтажная прокладка
- 1 - монтажная плата

## Рекомендуется:

- Провод 5-9 жил (Wiegand или Clock-and-Data), калибр 22 или 24 AWG [0,65 или 0,51 мм] (для модификации считывателя с кабельным выводом)
- Линейный источник питания постоянного тока
- Металлическая или пластмассовая распределительная коробка
- Спецключ (для защитного винта) HID 04-0001-03
- сверло
- монтажная арматура

## Specifications

ESPECIFICACIONES  
SPÉCIFICATIONS  
ESPECIFICAÇÕES

SPEZIFIKATIONEN  
SPECIFICHE  
仕様

规格  
사양  
ХАРАКТЕРИСТИКИ

| PRODUCT<br>PRODUCTO<br>PRODUIT<br>PRODUTO<br>PRODUKT<br>PRODOTTO<br>製品<br>产品<br>제품<br>ИЗДЕЛИЕ | BASE PART NUMBER<br>NÚMERO DE COMPONENTE BASE<br>RÉFÉRENCE DE BASE<br>NÚMERO DAS PEÇAS BÁSICAS<br>HAUPTTEILENUMMER<br>NUMERO PARTE DI BASE<br>基本部品番号<br>基本部件编号<br>기본부품 번호<br>БАЗОВЫЙ НОМЕР ИЗДЕЛИЯ | INPUT VOLTAGE (VDC)<br>TENSIÓN DE ENTRADA (VCC)<br>TENSION D'ALIMENTATION (Vcc)<br>VOLTAGEM DE ENTRADA (VCC)<br>EINGANGSSPANNUNG (VDC)<br>TENSIONE IN INGRESSO (V c.c.)<br>入力電圧(VDC)<br>输入电压 (VDC)<br>입력 전압(VDC)<br>НАПРЯЖЕНИЕ ПИТАНИЯ<br>(В постоянного тока) | CURRENT <sup>1</sup><br>CORRIENTE ELÉCTRICA<br>CONSUMPTION<br>CORRENTE<br>STROMSTÄRKE<br>CORRENTE<br>電流<br>电流<br>전류<br>ТОК |                         |                   | OPERATING TEMPERATURE<br>TEMPERATURA DE FUNCIONAMIENTO<br>TEMPÉRATURE DE FONCTIONNEMENT<br>TEMPERATURA DE OPERAÇÃO<br>BETRIEBSTEMPERATUR<br>TEMPERATURA D'ESERCIZIO<br>稼働温度<br>操作温度<br>작동 온도<br>РАБОЧАЯ ТЕМПЕРАТУРА | CABLE LENGTH<br>LONGITUD DEL CABLE<br>LONGUEUR DE CÂBLE<br>COMPRIMENTO DO CABO<br>KABELLÄNGE<br>LUNGHEZZA CAVO<br>ケーブル長<br>电缆长度<br>케이블 길이<br>ДЛИНА КАБЕЛЯ                                                                                               | UL REF NUMBER<br>NÚMERO DE REFERENCIA UL<br>RÉF. UL<br>NÚMERO DE REFERÊNCIA UL<br>UL-REFERENZNUMMER<br>NUMERO DI RIFERIMENTO UL<br>UL参照番号<br>UL 参考编号<br>UL 참조 번호<br>Справочный номер в UL |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                               |                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                | Standby<br>AVG <sup>2</sup>                                                                                                | Max<br>AVG <sup>3</sup> | PEAK <sup>4</sup> |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                         |                                                                                                                                                                                           |
| R90                                                                                           | 940N                                                                                                                                                                                               | 12 VDC                                                                                                                                                                                                                                                         | 110 mA                                                                                                                     | 130 mA                  | 300 mA            | -30° - 150° F<br>(-35° - 65° C)                                                                                                                                                                                     | <b>Power Supply Lines</b><br>300 ft (91 m) - 22 AWG<br>780 ft (237 m) - 18 AWG<br><br><b>Communication Lines</b><br><b>Wiegand / Clock-and-Data</b><br>500 ft (152 m) - 22 AWG<br>300 ft (91 m) - 24 AWG<br><b>RS485</b><br>4,000 ft (1,219 m) - 24 AWG | R90Ex <sub>1</sub> x <sub>2</sub> x <sub>3</sub>                                                                                                                                          |
|                                                                                               |                                                                                                                                                                                                    | 24 VDC                                                                                                                                                                                                                                                         | 70 mA                                                                                                                      | 80mA                    | 150 mA            |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                         |                                                                                                                                                                                           |

NSC = Normal Standby Condition

<sup>1</sup> Communications protocols other than Wiegand or Clock & Data require an additional hardware module which increases current by 30 mA."

<sup>2</sup> Standby AVG - RMS current draw without a card in the RF field.

<sup>3</sup> Maximum AVG - RMS current draw during continuous card reads. Not evaluated by UL.

<sup>4</sup> Peak - highest instantaneous current draw during RF communication.

## UL Reference Number Deciphering

x<sub>1</sub> Reader Colors: K = Black  
 x<sub>2</sub> Wiring: T = Terminal  
 x<sub>3</sub> Communications: N = No Module  
 R = RS485 (OSDP)

## 1

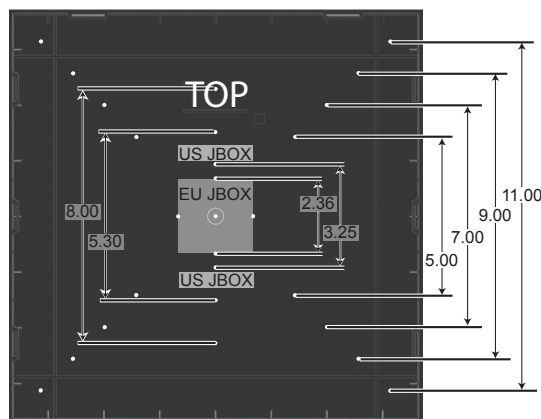
## Mounting

MONTAJE  
MONTAGE  
MONTAGEM

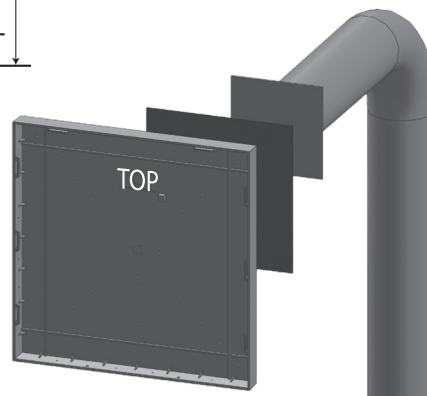
MONTAGE  
INSTALLAZIONE  
取り付け

安裝  
설치  
КРЕПЛЕНИЕ

**CAUTION:** RFID readers can be influenced by conditions in the installation environment. The R90 reader is designed to be mounted on a metal gooseneck pedestal as shown in this guide. However, in the event the reader must be mounted onto a large metal surface, it may be necessary to mount the reader off of the metal surface using a NEMA style electrical box. In the USA, an example of such a box used at HID facilities is P/N PCH196 from The Housing Company.



Gasket intended to cover drilled holes.  
Cut gasket as needed.

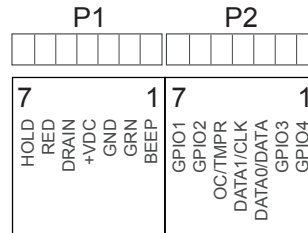
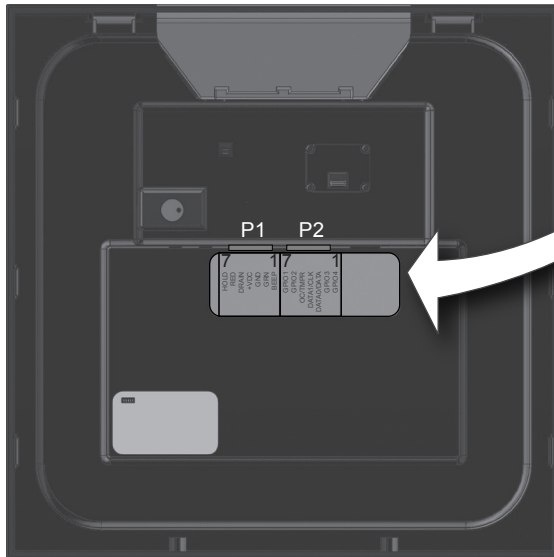


# 2 Wiring

CABLEADO  
CÂBLAGE  
FIAÇÃO

VERDRAHTUNG  
CABLAGGIO  
配線

布线  
배선  
Подключение проводов



**ATTENTION**  
Observe precautions for handling  
ELECTROSTATIC SENSITIVE DEVICES

| Terminal | Description     | Terminal | Description                      |
|----------|-----------------|----------|----------------------------------|
| P1-1     | Beeper Input    | P2-1     | GPIO4 (RS485-Y / TXA)            |
| P1-2     | LED Input (GRN) | P2-2     | GPIO3 (RS485-Z / TXB)            |
| P1-3     | Ground (RTN)    | P2-3     | ** Wiegand Data 0 / Data         |
| P1-4     | +VDC            | P2-4     | ** Wiegand Data 1 / Clock        |
| P1-5     | Unused          | P2-5     | * Open Collector Output / Tamper |
| P1-6     | LED Input (RED) | P2-6     | GPIO2 (RS232-R / RS485-RXB)      |
| P1-7     | Hold Input      | P2-7     | GPIO1 (RS232-T / RS485-RXA)      |

Note: Terminal IDs have changed from the previous generation of R90 Readers. When replacing an existing R90A reader, the connector wiring must be modified to that shown in the table prior to installing the R90E reader.

- \* Tamper Output - When activated, output synchronizes to ground (default).  
 \*\* Dependent upon reader configuration. See the HTOG for Wiegand and Clock-in-Data configurations.

| Borne | Descripción                  | Borne | Descripción                  |
|-------|------------------------------|-------|------------------------------|
| P1-1  | Entrada de biper             | P2-1  | GPIO4 (RS485-Y / TXA)        |
| P1-2  | Entrada para LED Verde (GRN) | P2-2  | GPIO3 (RS485-Z / TXB)        |
| P1-3  | Conexión a tierra            | P2-3  | ** Datos Wiegand 0 / Datos   |
| P1-4  | +VCC                         | P2-4  | ** Datos Wiegand 1 / Reloj   |
| P1-5  | Sin uso                      | P2-5  | * Salida de colector abierto |
| P1-6  | Entrada para LED Rojo        | P2-6  | GPIO2 (RS232-R / RS485-RXB)  |
| P1-7  | Entrada de retención         | P2-7  | GPIO1 (RS232-T / RS485-RXA)  |

Nota: Los identificadores de terminales han cambiado desde la anterior generación de lectores R90. Cuando la sustitución de un lector de R90A existente, el cableado del conector debe ser modificado para que se muestra en la tabla antes de instalar el lector de R90E.

- \* Salida de sabotaje. Al activarse, la salida se sincroniza con tierra (predeterminado).  
 \*\* Depende de la configuración del lector.  
 Consulte las configuraciones de HTOG Wiegand y Clock-and-Data para obtener más información.

| À bornier | Description            | À bornier | Description                            |
|-----------|------------------------|-----------|----------------------------------------|
| P1-1      | Entrée Beeper (BEEP)   | P2-1      | GPIO4 (RS485-Y / TXA)                  |
| P1-2      | Entrée LED verte (GRN) | P2-2      | GPIO3 (RS485-Z / TXB)                  |
| P1-3      | Terre (RTR)            | P2-3      | ** Données Wiegand 0 / Data (DATA0)    |
| P1-4      | +Vcc                   | P2-4      | ** Données Wiegand 1 / Clock (DATA1)   |
| P1-5      | Non utilisé            | P2-5      | * Sortie à collecteur ouvert (OC/TMPR) |
| P1-6      | Entrée LED rouge (RED) | P2-6      | GPIO2 (RS232-R / RS485-RXB)            |
| P1-7      | Entrée Hold (HOLD)     | P2-7      | GPIO1 (RS232-T / RS485-RXA)            |

\* Sortie autoprotection. Lorsqu'elle est activée, la sortie est tirée vers la masse (par défaut).

\*\* Selon la configuration du lecteur.  
Pour plus d'informations, voir les configurations HTOG Wiegand et Clock-and-Data.

| Terminal | Descrição                  | Terminal | Descrição                   |
|----------|----------------------------|----------|-----------------------------|
| P1-1     | Entrada de biper           | P2-1     | GPIO4 (RS485-Y / TXA)       |
| P1-2     | Entrada de LED verde (VRD) | P2-2     | GPIO3 (RS485-Z / TXB)       |
| P1-3     | Terra (RTN)                | P2-3     | ** Dados Wiegand 0 / Dados  |
| P1-4     | +VDC                       | P2-4     | ** Wiegand-Daten 1/Uhr      |
| P1-5     | Não usado                  | P2-5     | * Saída do coletor aberta   |
| P1-6     | Entrada de LED vermelho    | P2-6     | GPIO2 (RS232-R / RS485-RXB) |
| P1-7     | Manter entrada             | P2-7     | GPIO1 (RS232-T / RS485-RXA) |

\* Saída de tamper. Quando ativada a saída sincroniza com o terra (padrão).

\*\* Dependente da configuração do leitor. Consulte do HTOG Wiegand e Configurações do Relógio e de Dados para obter mais informações.

| Terminal | Beschreibung            | Terminal | Beschreibung                       |
|----------|-------------------------|----------|------------------------------------|
| P1-1     | Beeper Eingang (BEEP)   | P2-1     | GPIO4 (RS485-Y / TXA)              |
| P1-2     | Eingang grüne LED (GRN) | P2-2     | GPIO3 (RS485-Z / TXB)              |
| P1-3     | Erdungsleiter (RTN)     | P2-3     | ** Wiegand-Daten 0 / Daten (DATA0) |
| P1-4     | +VDC                    | P2-4     | ** Wiegand-Daten 1 / Uhr (DATA1)   |
| P1-5     | Nicht verwendet         | P2-5     | * Open-Collector-Ausgang (OC/TMPR) |
| P1-6     | Eingang rote LED (RED)  | P2-6     | GPIO2 (RS232-R / RS485-RXB)        |
| P1-7     | Hold-Eingang (HOLD)     | P2-7     | GPIO1 (RS232-T / RS485-RXA)        |

\* Manipulationssicherungsausgang. Bei Aktivierung schaltet der Ausgang zur Erde (Standard).

\*\* Abhängig von Leserkonfiguration. Weitere Informationen siehe HTOG Wiegand- und Clock-and-Data-Konfiguration.

| Terminale | Descrizione              | Terminale | Descrizione                 |
|-----------|--------------------------|-----------|-----------------------------|
| P1-1      | Ingresso con cicalino    | P2-1      | GPIO4 (RS485-Y / TXA)       |
| P1-2      | Ingresso LED verde (GRN) | P2-2      | GPIO3 (RS485-Z / TXB)       |
| P1-3      | Massa (RTN)              | P2-3      | ** Wiegand Data 0 / Clock   |
| P1-4      | +V c.c.                  | P2-4      | ** Wiegand Data 1 / Clock   |
| P1-5      | Non usato                | P2-5      | * Uscita collettore aperto  |
| P1-6      | Ingresso LED rosso       | P2-6      | GPIO2 (RS232-R / RS485-RXB) |
| P1-7      | Ingresso di tenuta       | P2-7      | GPIO1 (RS232-T / RS485-RXA) |

\* Uscita tamper. Quando attivata, uscita a negativo (predefinito).

\*\* Dipende dalla configurazione del lettore.  
Per ulteriori informazioni in merito vedere le configurazioni HTOG Wiegand e Clock-and-Data.

| ターミナル | 説明            | ターミナル | 説明                          |
|-------|---------------|-------|-----------------------------|
| P1-1  | ブザー入力         | P2-1  | GPIO4 (RS485-Y / TXA)       |
| P1-2  | 緑色(GRN) LED入力 | P2-2  | GPIO3 (RS485-Z / TXB)       |
| P1-3  | 接地(RTN)       | P2-3  | ** Wiegandデータ0/データ          |
| P1-4  | +VDC          | P2-4  | ** Wiegandデータ1/クロック         |
| P1-5  | 未使用           | P2-5  | * オープンコレクタ出力                |
| P1-6  | 赤色LED入力       | P2-6  | GPIO2 (RS232-R / RS485-RXB) |
| P1-7  | ホールド入力        | P2-7  | GPIO1 (RS232-T / RS485-RXA) |

- \* タンパー出力。  
 \*\* リーダーの設定によって異なります。  
 詳細については、注文の手引き(HTOG)でWiegandとClock-and-Dataの設定を参照してください。

| 端子   | 説明              | 端子   | 説明                          |
|------|-----------------|------|-----------------------------|
| P1-1 | 蜂鳴器入力           | P2-1 | GPIO4 (RS485-Y / TXA)       |
| P1-2 | 緑色 (GRN) LED 入力 | P2-2 | GPIO3 (RS485-Z / TXB)       |
| P1-3 | 接地 (RTN)        | P2-3 | ** Wiegand 数据 0 /数据         |
| P1-4 | +VDC            | P2-4 | ** Wiegand 数据 1 /时钟         |
| P1-5 | 未用              | P2-5 | * 开路集电极输出                   |
| P1-6 | 红色 LED 输入       | P2-6 | GPIO2 (RS232-R / RS485-RXB) |
| P1-7 | 暂停输入            | P2-7 | GPIO1 (RS232-T / RS485-RXA) |

- \* 防拆输出。激活后，输出信号与接地信号同步（默认）。  
 \*\* 取决于读卡机配置。  
 有关详细信息，请参见 HTOG Wiegand 和时钟与数据配置。

| 터미널  | 설명             | 터미널  | 설명                          |
|------|----------------|------|-----------------------------|
| P1-1 | 비퍼 입력          | P2-1 | GPIO4 (RS485-Y / TXA)       |
| P1-2 | 녹색(GRN) LED 입력 | P2-2 | GPIO3 (RS485-Z / TXB)       |
| P1-3 | 접지(RTN)        | P2-3 | ** Wiegand Data 0 / Data    |
| P1-4 | +VDC           | P2-4 | ** Wiegand Data 1 / Clock   |
| P1-5 | 사용 안함          | P2-5 | * 오픈 콜렉터 출력                 |
| P1-6 | 빨간색 LED 입력     | P2-6 | GPIO2 (RS232-R / RS485-RXB) |
| P1-7 | 입력 대기          | P2-7 | GPIO1 (RS232-T / RS485-RXA) |

- \* 램퍼 출력. 활성화되면 출력은 접지에 동기화됩니다(기본값).  
 \*\* 리더기의 설정에 따라 달라집니다.  
 자세한 내용은 HTOG Wiegand 및 Clock-and-Data 설정을 참조하십시오.

| Клемма | Описание                            | Клемма | Описание                     |
|--------|-------------------------------------|--------|------------------------------|
| P1-1   | Вход управления звуковым сигналом   | P2-1   | GPIO4 (RS485-Y / TXA)        |
| P1-2   | Вход управления зелёным светодиодом | P2-2   | GPIO3 (RS485-Z / TXB)        |
| P1-3   | заземление                          | P2-3   | ** Wiegand Data 0 / Data     |
| P1-4   | + В пост. тока                      | P2-4   | ** Wiegand Data 1 / Clock    |
| P1-5   | Не используется                     | P2-5   | * Выход «открытый коллектор» |
| P1-6   | Вход управления красным светодиодом | P2-6   | GPIO2 (RS232-R / RS485-RXB)  |
| P1-7   | Вход задержки                       | P2-7   | GPIO1 (RS232-T / RS485-RXA)  |

- \* Выход датчика вскрытия корпуса. После активации датчика выход замыкается на землю (по умолчанию).  
 \*\* Зависит от конфигурации считывателя.  
 Дополнительная информация приводится в руководстве по заказу изделий Wiegand и Clock-and-Data.

# 3 Install Reader to Backbox

INSTALACIÓN DEL LECTOR EN LA PLACA POSTERIOR  
 INSTALLATION DU LECTEUR SUR LA PLAQUE ARRIÈRE  
 INSTALAÇÃO DO LEITOR NA PLACA TRASEIRA  
 LESER AN DER RÜCKPLATTE ANBRINGEN  
 INSTALLAZIONE DEL LETTORE A CONTROPIASTRA  
 背面プレートへのリーダーの取り付け  
 将读卡机安装到后板  
 리더기를 백플레이트에 설치  
 УСТАНОВИТЕ СЧИТЫВАТЕЛЬ НА МОНТАЖНУЮ ПЛАТУ

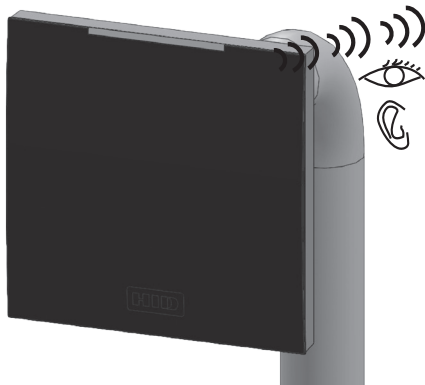


# 4 Power & Testing

ENCENDIDO Y PRUEBA  
 ALIMENTATION ET TESTS  
 ENERGIA E TESTE  
 STROMVERSORGUNG UND TESTEN

ALIMENTAZIONE E TEST  
 電源投入とテスト  
 电源和测试  
 전원 및 테스트  
 ВКЛЮЧЕНИЕ ПИТАНИЯ И ПРОВЕРКА

Turn power on  
 Encienda la unidad  
 Mettre sous tension  
 Ligue a energia  
 Einschalten  
 Accendere  
 電源を入れます  
 打开电源  
 전원을 켜십시오  
 Включить питание



Test card  
 Pruebe la tarjeta  
 Tester la carte  
 Teste o cartão  
 Karte testen  
 Provare la tessera  
 カードをテストします  
 测试卡  
 카드를 테스트하십시오  
 Протестировать чтение карты

# Optional Features

CARACTERÍSTICAS OPCIONALES  
CARACTÉRISTIQUES EN OPTION  
RECURSOS OPCIONAIS  
OPTIONALE FEATURES  
FUNZIONI OPZIONALI

オプション機能  
可选功能  
선택 사양 기능  
ДОПОЛНИТЕЛЬНЫЕ  
ВОЗМОЖНОСТИ

- Open Collector Output - Controls an external device (16 VDC Max) operating in Host Mode only. Sink - 40mA / Source - 1mA. See the iCLASS Open Collector Output - Controls an external device (16 VDC Max) operating in Host Mode only. Sink - 40mA / Source - 1mA.
- Optical Tamper - A configuration card is necessary to activate the Optical Tamper. Once activated, and when the mounting plate is removed, the Optical Tamper is activated. Contact HID Technical Support for Optical Tamper options. Configuration Cards - With the use of configuration cards, the reader can be modified to meet the specific requirements of an installation. Configuration options include; audio visual and CSN outputs. Contact HID Technical Support for all reader configuration options.
- Hold Input - when asserted, this line either buffers a card or disables a card read until released, as configured.
- Salida a colector abierto - controla un dispositivo externo (16 VCC máx.) que funciona únicamente en Modo Host. Disipación de corriente: 40mA / Fuente: 1mA.
- Interruptor de sabotaje óptico - la tarjeta de configuración acciona el interruptor de sabotaje óptico. Una vez accionado, cuando se retira la placa posterior del lector, se activa un interruptor de sabotaje óptico.
- Tarjetas de configuración - el uso de las tarjetas de configuración permite que el lector se pueda modificar para cumplir con los requisitos específicos de una instalación. Las opciones de configuración incluyen salidas de audio, visuales, CSN y teclado numérico (únicamente para los modelos que cuentan con esta opción). Comuníquese con el Centro de Asistencia Técnica de HID para conocer todas las opciones de configuración.
- Entrada de retención - cuando se activa, esta línea almacena una tarjeta en memoria intermedia o anula su configuración de lectura hasta que sea desactivada.
- Sortie à collecteur ouvert - contrôle un dispositif externe ( 16 Vcc max, -40mA).
- Autoprotection optique - Une carte de configuration est nécessaire pour activer l'autoprotection optique. Une fois que celle-ci a été activée, l'autoprotection optique se déclenche lorsque la plaque de montage est enlevée.
- Cartes de configuration - Les cartes de configuration permettent de modifier le fonctionnement du lecteur pour satisfaire aux exigences spécifiques d'une installation. Les options de configuration comprennent les fonctions audiovisuelles ainsi que les sorties CSN et les sorties de clavier (modèles à clavier uniquement). Contactez le support technique de HID pour connaître l'ensemble des options de configuration du lecteur.
- Entrée Hold - Lorsqu'elle est activée, cette ligne met une carte en mémoire tampon ou désactive la lecture de carte lorsque l'entrée est active, selon la configuration définie.
- Saída do coletor aberta - controla o dispositivo externo (máx. 16 VCC) operando somente no modo Host. Dissipador – 40mA / Fonte – 1mA.
- Optical Tamper - Um cartão de configuração é necessário para ativar o Optical Tamper (detector ótico). Uma vez acionado, quando se retira a placa traseira do leitor, o Optical Tamper será ativado.
- Cartões de configuração - com o uso de cartões de configuração, o leitor pode ser modificado para atender aos requisitos específicos de uma instalação. As opções de configuração incluem áudio-visual, saídas de CSN e saídas de teclado (somente modelos com teclado). Contate o Suporte Técnico HID para obter todas as opções de configuração do leitor.
- Entrada Hold - quando ativada, essa linha ou armazena um cartão ou desabilita a leitura de um cartão até que seja liberada, conforme configurada.
- Open-Collector-Ausgang - steuert ein externes Gerät (max. 16 VDC), ausschließlich über serielle Schnittstelle. Sink - 40 mA / Quelle - 1 mA. Einzelheiten sind im OmniCLASS-Anwendungshinweis enthalten.
- Optische Manipulationssicherung - zur Aktivierung der optischen Manipulationssicherung ist eine Konfigurationskarte erforderlich. Wenn nach Aktivierung der Konfigurationskarte die Montageplatte des Lesers entfernt wird, wird eine Manipulationswarnung ausgegeben.
- Konfigurationskarten - durch die Verwendung von Konfigurationskarten kann der Leser modifiziert werden, um die jeweiligen Anforderungen einer Installation zu erfüllen. Zu den Konfigurationsoptionen gehören audiovisuelle Einstellung, CSN-Ausgänge und Tastenfeld-Ausgänge (nur bei Modellen mit Tastenfeld). Informationen zu den Konfigurationsoptionen der Leser sind über den technischen Support von HID erhältlich.
- Hold-Eingang - wenn diese Funktion aktiviert ist, werden die Kartendaten entweder zwischengespeichert oder die Lesekonfiguration der Karte wird gesperrt, je nach Konfiguration.
- Uscita collettore aperto – Controlla un dispositivo esterno (massimo 16 V c.c.) che funziona solo in modalità host. Sink - 40mA / Source - 1mA.
- Tamper ottico - per l'attivazione del tamper ottico è necessaria una tessera di configurazione. Una volta attivato, se la piastra posteriore viene rimossa, il dispositivo viene attivato.
- Tessere di configurazione - tali tessere consentono di modificare il lettore in modo da rispondere agli specifici requisiti di un'installazione. Le opzioni di configurazione includono: audio-visivo, output del numero di serie della scheda e output della tastiera (solo per modelli con tastiera). Contattare il supporto tecnico HID per tutte le opzioni di configurazione del lettore.
- Ingresso di tipo hold - Quando viene attivata, questa linea memorizza in un buffer una tessera o disattiva la lettura della tessera fino al rilascio, come configurato.

- オープンコレクタ出力 - ホストモードでのみ動作する外部装置(最大 16 VDC)をコントロールします。シンク - 40mA / ソース - 1mA。
- 光タンパー - 光タンパーを有効にするには、設定カードが必要です。一旦有効にすると、取り付けプレートを取り外したときに、光タンパーが作動します。
- 設定カード - 設定カードを使用すると、取り付けの具体的な要件を満たすようにリーダーを変更できます。設定オプションには、オーディオビジュアル、CSN 出力、キーパッド出力(キーパッドモデルのみ)などがあります。すべてのリーダー設定オプションについては、HID 技術サポートにご連絡ください。
- ホールド入力 - 有効にすると、解除するまで、このラインは、設定されたとおりに、カードをバッファするかカード読み取り設定を無効にします。
- 开路集电极输出 - 控制一个仅以主机模式工作的外部设备(最大 16 VDC)。拉电流 - 40mA/灌电流 - 1mA。
- 光学修改警报器 - 光学修改警报器需要通过配置卡激活。一旦激活, 光学修改警报器会在移除读卡机的安装板时发出警报。
- 配置卡 - 可以使用配置卡改装读卡器, 以满足特定的安装要求。配置选项包括: 音频/视频、CSN 输出和键盘输出(仅限于键盘模式)。有关读卡机的所有配置选项, 请联系 HID 技术支持部门。
- 暂停输入 - 启用时, 这条控制线会使读卡器缓冲一个卡或者使读卡器不读卡, 直到该功能被取消。
- 오픈 콜렉터 출력 - 외부 장치(최대 16 VDC)를 제어합니다. 단, 호스트 모드일 때만 작동합니다. 싱크 - 40mA / 소스 - 1mA.
- 옵티컬 탬퍼 - 옵티컬 탬퍼를 활성화하려면 설정 카드가 필요합니다. 옵티컬 탬퍼가 활성화되면, 리더기의 설치 플레이트가 제거될 때 옵티컬 탬퍼가 작동하게 됩니다.
- 설정 카드 - 설정 카드를 사용하면, 리더기는 설치시 특정 요건을 만족하도록 수정 가능합니다. 구성 옵션은 LED의 시각적 효과, CSN 출력 및 키패드 출력(키패드 모듈 전용)을 포함합니다. 모든 리더 구성 옵션에 대한 내용은 HID 기술 지원부에 문의하십시오.
- 입력 대기 - 입력 신호가 수신되면, 입력이 해제될때까지 리더는 카드를 판독하지 않거나 카드데이터를 저장하지 않습니다.
- Выход «открытый коллектор» контролирует внешнее устройство (16 В постоянного тока максимально) – только при работе в режиме «хост-устройства».
- Оптический датчик вскрытия – для активации этого датчика требуется карта конфигурации. После того как этот датчик будет активирован, несанкционированное снятие монтажной платы считывателя приведет к выдаче тревожного сигнала.
- Карты конфигурации – С помощью карт конфигурации можно настроить считыватель под конкретные требования системы, в которой он будет использоваться. Варианты настройки конфигурации: аудио и видео, выход CSN (серийный номер карты) и выход на тастатуру (только для моделей с тастатурой). Информацию обо всех вариантах настройки конфигурации считывателя можно получить в службе технической поддержки корпорации HID.
- Ввод задержки (Hold input) – при включении эта линия сохранит параметры карты в буфере или же заблокирует считывание карты до снятия сигнала (в зависимости от настройки конфигурации).

## Regulatory

### Brazil

#### Compliance Statement

Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela Resolução 242/2000, e atende aos requisitos técnicos aplicados. Para maiores informações, consulte o site da ANATEL - [www.anatel.gov.br](http://www.anatel.gov.br)

This product is homologated at ANATEL according to procedure regulated by Resolution 242/2000, and it complies with the applicable technical requirements. For more information, consult ANATEL website - [www.anatel.gov.br](http://www.anatel.gov.br)

#### RF Warning Statement

Per Article 6 of Resolution 506, equipment of restricted radiation must carry the following statement in a visible location

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

This equipment operates in secondary character, meaning it does not have the right of protection against harmful interference, even against those the same character, and it cannot cause any interference to systems operating in the primary character.

### UL

Connect only to a Listed Access Control / Burglary power-limited power supply. These readers are intended to be used with listed (UL294) control equipment.

Only Wiegand and RS-485 communications have been evaluated by UL.

### FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**CAUTION: Any changes or modifications to this device not explicitly approved by the manufacturer could void your authority to operate this equipment.**

## Canada Radio Certification

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## CE Marking

HID Global hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Por el presente, HID Global declara que estos lectores de proximidad cumplen con los requisitos esenciales y otras disposiciones relevantes de la Directiva 1999/5/EC.

HID Global déclare par la présente que ces lecteurs à proximité sont conformes aux exigences essentielles et aux autres stipulations pertinentes de la Directive 1999/5/CE.

A HID Global, por meio deste, declara que estes leitores de proximidade estão em conformidade com as exigências essenciais e outras condições da diretiva 1999/5/EC.

HID Global bestätigt hiermit, dass die Leser die wesentlichen Anforderungen und anderen relevanten Bestimmungen der Richtlinie 1999/5/EG erfüllen.

HID Global dichiara che i lettori di prossimità sono conformi ai requisiti essenziali e ad altre misure rilevanti come previsto dalla Direttiva europea 1999/5/EC.

Download copies of the R&TTE Declaration of Conformity (DoC) at [www.hidglobal.com/certifications](http://www.hidglobal.com/certifications).

## Taiwan

According to "Administrative Regulations on Low Power Radio Waves Radiated Devices" Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to a approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

## Singapore

Complies with  
IDA Standards  
DA103548

## Korean KCC

|       | R90                       |
|-------|---------------------------|
| 항목    | 규격                        |
| 송신주파수 | RFID:13.56 MHz            |
| 수신주파수 | RFID:13.56 MHz            |
| 출력    | RFID: 10m에서<br>47.544mV이하 |
| 전원    | DC 16<br>.0V              |
| 전파형식  | A1D                       |
| 발진방식  | X-tal                     |
| 변조방식  | AM                        |

# HID

## ACCESS experience.

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PLT-01051, A.4

US Patents: See [www.hidglobal.com/patents](http://www.hidglobal.com/patents)  
Check reader label for current regulatory approvals.

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General Signaling  
Equipment

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