ES ESPAÑOL

EN ENGLISH

*DGLPMWLC*

*DGLIMWLC*


# DGLPMWLC
# DGLIMWLC

**Lectores Mifare® 13,56 MHz interior/exterior - Wiegand**
***Indoor/Outdoor 13.56 MHZ Mifare® Card Readers - Wiegand***

*La elección del instalador*
**cdvigroup.com**

# DGLPMWLC - DGLIMWLC
Lectores Mifare® 13,56 MHz Wiegand

ES

***Gracias por confiar en CDVI con la adquisición de este producto.***

## 1] PRESENTACIÓN DE PRODUCTOS

- ***Wiegand 26, 30 o 44 bits.***
- ***Versiones disponibles:***
  - *Acero inoxidable (DGLIMWLC).*
  - *Policarbonato (DGLPMWLC).*
- ***Electrónica sellada con resina epoxi.***
- ***Señalización visual y sonora.***
- ***Montaje en superficie.***

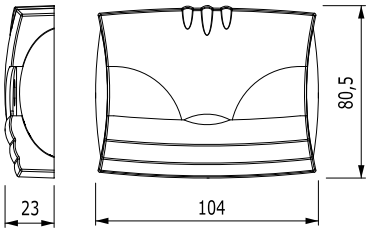
H.R.V.
ANTIVANDÁLICO

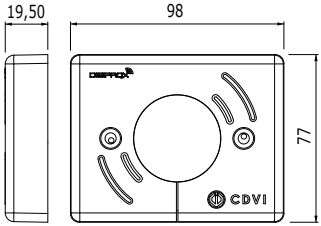
- Tecnología: 13,56 Mhz.
- Conexionado por cable de 4 pares 6/10º.
- Alimentación: 12 Vcc.
- Consumo: 100 mA.

*Conforme a la directiva europea R&TTE 99/5/CE y sus normas armonizadas ETS 301 489 y ETS300-330-1-Ed 2001. Conforme a las normas CEM aplicables: EN 50133, EN 50130-4.*

RoHS
*Certificado CE*
*Certificado FCC CFR 47 conforme parte 15*
*WEEE*
*IP53*
*-25°C a +70°C*

*DGLPMWLC*




*DGLIMWLC*

## 2] NOTAS Y RECOMENDACIONES

**Recomendaciones de instalación**
Para asegura el sistema, no se olvide de instalar un varistor en paralelo a cada uno de los dispositivos de cierre.

**Entorno**
Si los lectores están en un entorno cercano al mar o salino, se recomienda barnizar los bornes para prevenir la oxidación.

**Fuentes de alimentación**
ADC335, ARD12 y BS60.

**Cable recomendado**
Cable de 4 pares trenzados 6/10º (AWG 24).

## 3] ELEMENTOS INCLUIDOS

| |  Varistor |  Herramienta Diax® |  Torn. Diax® 5x35mm |  Anclaje metálico |  Tapa izquierda |  Tapa derecha |  Taco de fijación |  Tornillo 3x40mm |
|---|---|---|---|---|---|---|---|---|
| **DGLIMWLC** | 1 | 1 | 2 | 2 | - | - | - | - |
| **DGLPMWLC** | 1 | - | - | - | 2 | 2 | 2 | 2 |

## 5] ESQUEMA DE CONEXIONADO DGLPMWLC

**ST1-ST2:**
Formato de salida Wiegand

***Formato de salida:***
*- Standard: 26 bits Wiegand.*
*- ST1: 30 bits Wiegand.*
*- ST2: 44 bits Wiegand.*


*26 bits*


*30 bits*


*44 bits*

**ST5-ST6:** LED


*Comando por nivel «O» (OV)*


*Comando por nivel «1» (+5V)*

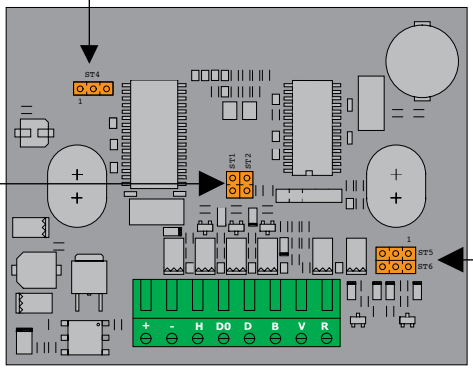
**ST4: Pulls up 12 V o 5V**
Para salidas de colector abierto existen dos posibilidades:


*Pulls up a 12 V*


*Pulls up a 5 V*


*Sin pull up*

Este júmper permite escoger el voltaje de salida en función de la instalación.

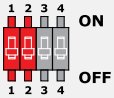



**DGLPMWLC* - *Bornero (8 puntos):***

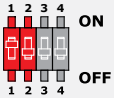
| | |
|---|---|
| **+** | Alimentación 12 Vcc |
| **-** | 0 V |
| **H** | Clock |
| **D0** | Data 0 |
| **D1** | Data 1 |
| **B** | Buzzer |
| **V** | LED verde |
| **R** | LED rojo |

## 5] ESQUEMA DE CONEXIONADO DGLIMWLC

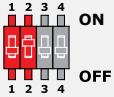
### POSICIONAMIENTOS DIPSWITCH 1 Y 2



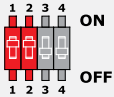

**OFF/OFF**
26 bits



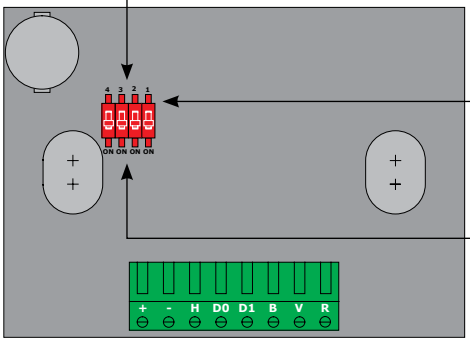

**ON/OFF**
30 bits




**OFF/ON**
44 bits



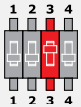

**ON/ON**
No usado




| Bornero (8 puntos) | |
|---|---|
| + | Alimentación 12 Vcc |
| - | 0V |
| H | Clock |
| D0 | Data 0 |
| D1 | Data 1 |
| B | Buzzer |
| V | LED verde |
| R | LED rojo |

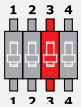
### POSICIONAMIENTO DIPSWITCH 3

***Puede controlar el buzzer y los LED a través del lector o un dispositivo externo.***




**ON**
Modo Centaur

*Al presentar una tarjeta se activa el LED naranja y se emite un pitido. El controlador CENTAUR puede gestionar los LED y el buzzer para programar otras operaciones*

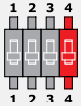



**OFF**
Modo CDVI

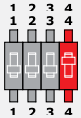
*El controlador o sistema de accesos gestionan los LED y el buzzer para programar otras opciones.*

### POSICIONAMIENTO DIPSWITCH 4

**Pulls up 12 V o 5V**
Para salidas de colector abierto, existen dos posibilidades:




**OFF**
Pull up 5V

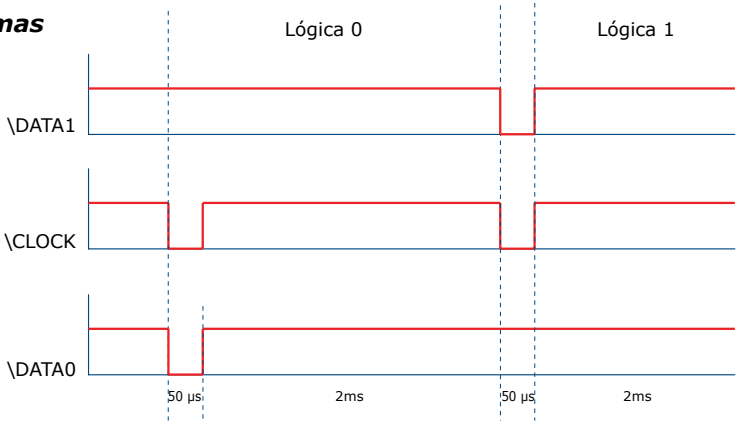



**ON**
Pull up 12V

*Seleccione la tensión de salida en función de la instalación.*

## 6] FORMATO DE SALIDA WIEGAND 26, 30 Y 44 BITS

### *Cronogramas*




*Salidas en colector abierto con pull ups internos de 1 K a +5 V o +12 V según posición de dipswitch ST4.*

### *Formato Wiegand 26 bits*

Formato de 26 bits hexadecimal. La comunicación se efectúa por una conexión Wiegand de 26 bits (señales: DATA1, DATA0 y CLOCK) en la que la trama se descompone de la siguiente manera:

***1 - Primera paridad:*** 1 bit – paridad par de los primeros 12 bits.
Código del tag: 6 mitades de byte que representan los últimos 6 dígitos del código (4 bit = 1 dígito).
Cada byte se transmite desde el bit 7 al bit 0.

***2 - Segunda paridad:*** 1 bit – paridad impar de los últimos 12 bits.

| Bit 1 | Bit 2 a bit 25 | Bit 26 |
|---|---|---|
| Paridad par de bit 2 a bit 13 | Datos (24 bits) | Paridad impar de bit 14 a bit 25 |

***Ejemplo:*** *para una tarjeta donde el código hexadecimal es 0100166A37.*

| 1 | 0001 | 0110 | 0110 | 1010 | 0011 | 0111 | 0 |
|---|---|---|---|---|---|---|---|
| Paridad 1 | 1 | 6 | 6 | A | 3 | 7 | Paridad 2 |

*El código que se transmite en hexadecimal es 166A37.*

*Paridad 1:* *"0" si el número de 1 desde el bit 2 al bit 13 es par.*
*"1" si el número de 1 desde el bit 2 al bit 13 es impar.*
*Paridad 2:* *"0" si el número de 1 desde el bit 14 al bit 25 es impar.*
*"1" si el número de 1 desde el bit 14 al bit 25 es par.*

## *Formato Wiegand 30 bits*

Formato de 30 bits hexadecimal. La comunicación se efectúa por una conexión Wiegand de 30 bits (señales: DATA1, DATA0 y CLOCK) en la que la trama se descompone de la siguiente manera:

***1 - Primera paridad:*** 1 bit – paridad par de los primeros 14 bits.
Código del tag: Se forma con 7 mitades de un byte.
Cada byte se transfiere desde el bit 7 al bit 0.
***2 - Segunda paridad:*** 1 bit – paridad impar de los últimos 12 bits.

| Bit 1 | Bit 2 a bit 29 | Bit 30 |
|---|---|---|
| Paridad par de bit 2 a bit 15 | Datos (28 bits) | Paridad impar de bit 16 a bit 29 |

***Ejemplo A:*** *para una tarjeta cuyo código decimal es 689905 (en hexadécimal: A86F1).*

| 1 | 0000 | 0000 | 1010 | 0110 | 0110 | 1111 | 0001 | 0 |
|---|---|---|---|---|---|---|---|---|
| Paridad 1 | 0 | 0 | A | 8 | 6 | F | 1 | Paridad 2 |

*El código que se transmite en hexadecimal es 00A86F1.*

***Ejemplo B:*** *para una tarjeta cuyo código en hexadecimal es 0100166A37.*

| 1 | 0000 | 0000 | 0001 | 0001 | 0110 | 1011 | 0110 | 1 |
|---|---|---|---|---|---|---|---|---|
| Paridad 1 | 0 | 0 | 6 | 6 | A | 3 | 7 | Paridad 2 |

*El código que se transmite en hexadecimal es 0166A37.*

*Paridad 1: «0» si el número de 1 desde el bit 2 al bit 15 es par.*
*«1» si el número de 1 desde el bit 2 al bit 15 es impar.*
*Paridad 2: «0» si el número de 1 desde el bit 16 al bit 29 es impar.*
*«1» si el número de 1 desde el bit 16 al bit 29 es par.*

## *Formato Wiegand 44 bits*

Formato de 44 bits hexadecimal. La comunicación se efectúa por una conexión Wiegand de 44 bits (señales: DATA1, DATA0 y CLOCK) en la que la trama se descompone de la siguiente manera:

***Datos:*** SN de 10 dígitos en hexadecimal (MSByte en primer lugar).
Cada dígito en hexadecimal = 4 bit (MSBit en primer lugar).
***LRC:*** 4 bit = O restringido entre los dígitos de los datos (MSBit en primer lugar).

| Bit 1 a bit 40 | Bit 41 a bit 44 |
|---|---|
| SN de la tarjeta, MSBit primero | LRC |

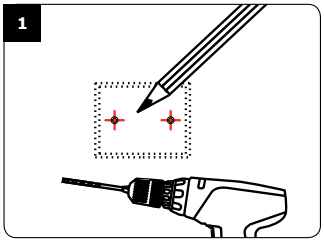
***Ejemplo A:*** *para una tarjeta EM cuyo código en hexadecimal es 01001950C3.*

| 0000 | 0000 | 0000 | 0000 | 0001 | 1001 | 0101 | 0000 | 1100 | 0011 | 0011 |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 0 | 0 | 1 | 9 | 5 | 0 | C | 3 | 3 |

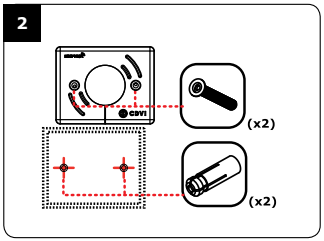
*El código que se transmite en hexadecimal es 01001950C3.*

## 7] MONTAJE

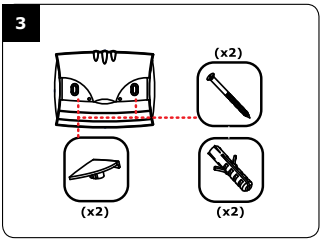
Asegúrese de que todas las piezas necesarias están incluidas en la caja del producto. Utilice las herramientas adecuadas para cada tipo de instalación (taladro, destornilladores, cinta métrica...) y siga las instrucciones de montaje del lector.




Mida y marque las posiciones de los agujeros de fijación del lector y del cableado. Practique el taladro de todos los agujeros (Diámetro de 4 mm para la placa de fijación y 6 mm para el lector).




**DGLIMWLC**
Inserte los anclajes metálicos en los agujeros de montaje, conecte el cable a los terminales correspondientes y después fije el lector a la pared usando los tornillos DIAX® y su herramienta correspondiente. Asegúrese de que el varistor está conectado al dispositivo de cierre.




**DGLPMWLC**
Inserte los tacos de fijación en los agujeros de montaje, conecte el cable a los terminales correspondientes y después fije el lector a la pared usando los tornillos suministrados. Para finalizar, coloque las tapas en los laterales. Asegúrese de que el varistor está conectado al dispositivo de cierre.

## 8] NOTAS

# DGLPMWLC - DGLIMWLC

*13.56 MHZ Mifare® Card Readers - Wiegand Output*

EN

***Thank you for buying our products and for the confidence you placed in our company.***

## 1] PRODUCTS OVERVIEW

- ***Wiegand 26, 30 ou 44 bits.***
- ***Available in version:***
  - *Stainless steel (Réf : DGLIMWLC),*
  - *Polycarbonate (Réf : DGLPMWLC).*
- ***PCB sealed in epoxy.***
- ***Audible and visual feedback.***
- ***Surface mount.***

H.R.V.
HIGH RESISTANCE TO VANDALISM

- Technologie : 13,56 Mhz.
- Connecting by 6/40 4-pair cable.
- Input voltage : 12V DC.
- Consumption : 100 mA.

*Complies with European R&TTE directive 99/5/EC and harmonised standards: ETS 301 489 and ETS 300-330-1-Ed 2001. Complies with applicable EMC standards: EN 50133, EN 50130-4.*

RoHS

CE *CE Certification*

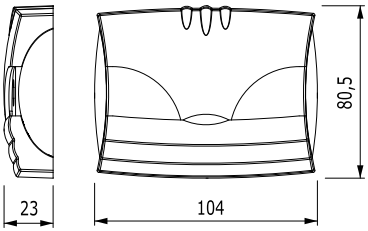
FC *Certification FCC CFR 47 part 15 compliance*

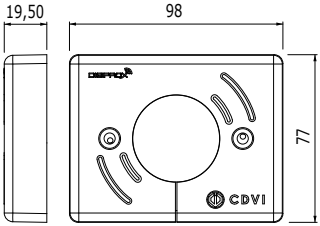
*WEEE*

*IP53*

*-25°C to +70°C*

*DGLPMWLC*




*DGLIMWLC*

## 2] RECOMMANDATIONS

**Important**
To protect the device from back - emf do not forget to mount the varistor on the lock in parallel.

**Environment**
When in a humid area or close to a sea shore, we recommend applying a varnish on the terminals to avoid oxidation.

**Suggested power supplies**
ARD12 & BS60

**Recommended cables**
4 twisted pairs 0.6 MM (AWG 24).

## 3] PACKAGE CONTENTS

| |  Varistor |  Diax® spanner |  Diax® screw stainless steel |  Brass anchor |  Right cover |  Left cover |  Plastic anchor |  Wood screw 3 x 40 mm |
|---|---|---|---|---|---|---|---|---|
| **DGLIMWLC** | 1 | 1 | 2 | 2 | - | - | - | - |
| **DGLPMWLC** | 1 | - | - | - | 2 | 2 | 2 | 2 |

## 5] WIRING DIAGRAMS DGLPMWLC

**ST1-ST2 :**
Wiegand output selection

***Output format:***
*- Standard: 26 bits Wiegand*
*- ST1: 30 bits Wiegand*
*- ST2: 44 bits Wiegand*


*26 bits*


*30 bits*


*44 bits*

**ST5-ST6 :** LED Control


*Set up jumper in (OV) with CTV900A and CAA470A*


*Set up jumper in (+5V)*

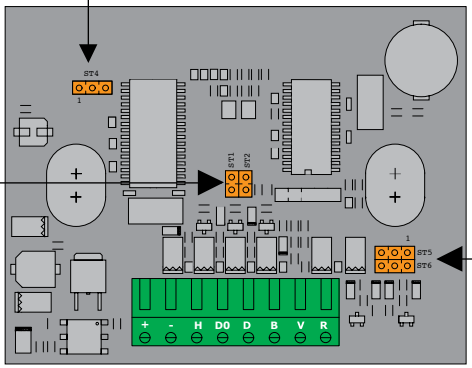
**ST4: Pulls up 12 V ou 5V**
**Open collector outputs:**


*Pulls up on 12 V*


*Pulls up on 5 V*


*No pull up*

Select the output voltage according to the installation.

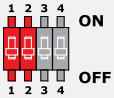



**DGLPMWLC - *Terminal (8 pins) :***

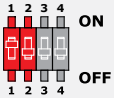
| | |
|---|---|
| **+** | Input voltage 12VDC |
| **-** | 0V |
| **H** | Clock |
| **D0** | Data 0 |
| **D1** | Data 1 |
| **B** | Buzzer |
| **V** | Green LED |
| **R** | Red LED |

## 5] WIRING DIAGRAM : DGLIMWLC

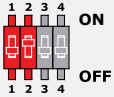
### DIPSWITCH 1 & 2 POSITIONNING



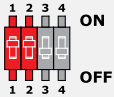

**OFF/OFF**
26 bits



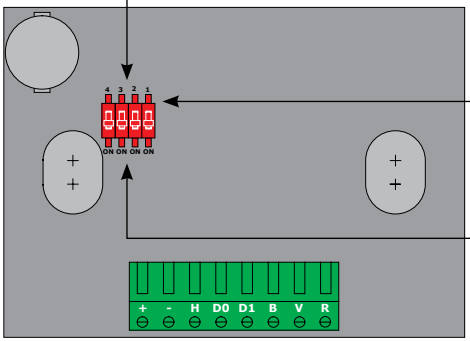

**ON/OFF**
30 bits




**OFF/ON**
44 bits



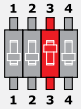

**ON/ON**
Non allocated




| Terminal *(8 pins)* | |
|---|---|
| **+** | Input voltage 12VDC |
| **-** | 0V |
| **H** | Clock |
| **D0** | Data 0 |
| **D1** | Data 1 |
| **B** | Buzzer |
| **V** | Green LED |
| **R** | Red LED |

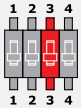
### DIPSWITCH 3 POSITIONNING

***The buzzer and the LED's can be controlled by the reader or by an external device.***




**ON**
Centaur Mode

*In standard, when a card or a tag is placed within the reader the orange LED is activated and the buzzer emit a tone. The Centaur controller can manage the LED and the buzzer to program other operations.*

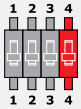



**OFF**
CDVI Mode

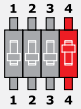
*The controller or the audio entry system can manage the LED and the buzzer to program other operations.*

### DIPSWITCH 4 POSITIONNING

**Pulls up 12 V or 5V**
Open collector outputs:




**OFF**
Pull up 5V

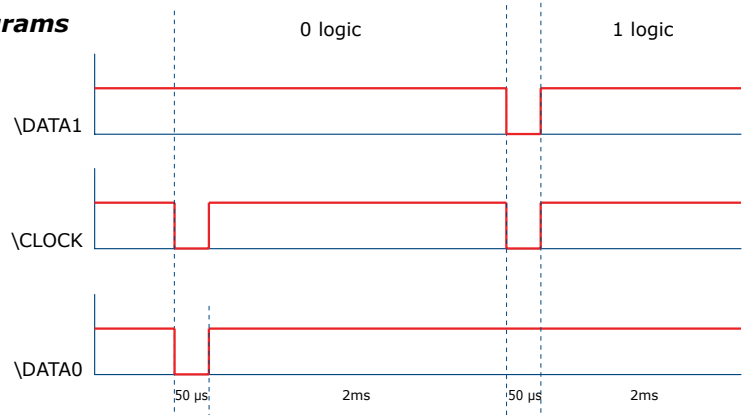



**ON**
Pull up 12V

Select the output voltage according to the installation.

## 6] OUTPUT FORMATS 26, 30 ET 44 BITS WIEGAND

### *Chronograms*




*Open collector output with internal pulls up 1K at +5V or +12V according the ST4 position.*

### *26-bit Wiegand Output*

*Structure and description of the code :*

Format 26-bit hexadecimal. The output format is 26-bit Wiegand (Signals: DATA1, DATA0 and CLOCK)
The frame is made of 26-bit and built as follow:

***1 - First parity:*** 1-bit – even parity for the first 12-bit
Code of the badge: 6 half byte represent the last 6 digit of the code (4bit = 1 digit of a code)
Each byte is transferred from bit 7 to bit 0.

***2 - Second parity:*** 1-bit – odd parity for the last 12-bit

| Bit 1 | Bit 2 to bit 25 | Bit 26 |
|---|---|---|
| Even Parity on bit 2 to bit 13 | Data (24 bit) | Odd Parity on bit 14… bit 25 |

***Example:*** *code of the badge is 0100166A37.*

| 1 | 0001 | 0110 | 0110 | 1010 | 0011 | 0111 | 0 |
|---|---|---|---|---|---|---|---|
| Parity 1 | 1 | 6 | 6 | A | 3 | 7 | Parity 2 |

*The code transmitted is in hexadecimal format 166A37*

*Parity 1:* *0 if the number of 1 in bit 2 to bit 13 is even*
*1 if the number of 1 in bit 2 to bit 13 is odd*

*Parity 2:* *0 if the number of 1 in bit 14 to bit 25 is odd*
*1 if the number of 1 in bit 14 to bit 25 is even*

## *30-bit Wiegand Output*

*Structure and description of the code*

Signals output in open collectors with pull up in 30-bit hexadecimal format. The output format from the proximity reader is 30-bit wiegand (Signal: DATA1, DATA0 and CLOCK) and is structured as follow:

***1 - First parity :*** 1 bit – even parity for the first 14-bit
Code : A code is formed from 7 half byte.
Each byte is transferred from bit 7 to bit 0.

***2 - Second parity:*** 1 bit – odd parity for the last 14-bit

| Bit 1 | Bit 2 à bit 29 | Bit 30 |
|---|---|---|
| Even Parity from bit 2 to bit 15 | Data (28-bit) | Odd Parity from bit 16 to bit 29 |

***Example A :*** *Temic card decimal code: 689905 (in hexadecimal: A86F1).*

| 1 | 0000 | 0000 | 1010 | 0110 | 0110 | 1111 | 0001 | 0 |
|---|---|---|---|---|---|---|---|---|
| Parity 1 | 0 | 0 | A | 8 | 6 | F | 1 | Parity 2 |

*The code number of the card is 00A86F1 in hexadecimal*

***Example B :*** *EM badge hexadecimal code: 0100166A37*

| 1 | 0000 | 0000 | 0001 | 0001 | 0110 | 1011 | 0110 | 1 |
|---|---|---|---|---|---|---|---|---|
| Parity 1 | 0 | 0 | 6 | 6 | A | 3 | 7 | Parity 2 |

*The code transmitted is in hexadecimal format 0166A37*

*Parity 1:* *0 if the number of 1 in bit 2 to bit 15 is even*
*1 if the number of 1 in bit 2 to bit 15 is odd*
*Parity 2:* *0 if the number of 1 in bit 16 to bit 29 is odd*
*1 if the number of 1 in bit 16 to bit 29 is even*

## *44- bit Wiegand Format Output*

44-bit hexadecimal format. The output format from the proximity reader is 44-bit (Signal: DATA1, DATA0 and CLOCK) and is structured as follow:

***1 - Data:*** 10 digit code number hexadecimal MSByte first . Each hexadecimal digit = 4 bit, MSBit first
***2 - LRC :*** 4 bit = or restricted in between the digit of the data, MSBit first.

| Bit 1 à bit 40 | Bit 41 à bit 44 |
|---|---|
| Data MSBit first | LRC |

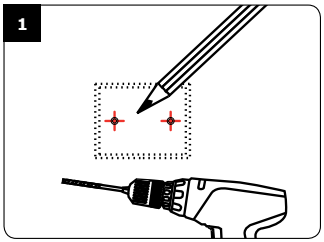
***Example A :*** *EM badge hexadecimal code: 01001950C3.*

| 0000 | 0000 | 0000 | 0000 | 0001 | 1001 | 0101 | 0000 | 1100 | 0011 | 0011 |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 0 | 0 | 1 | 9 | 5 | 0 | C | 3 | 3 |

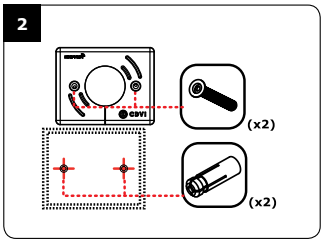
*The code number of the card is: 01001950C3 in hexadecimal code.*

## 7] MOUNTING INSTRUCTIONS

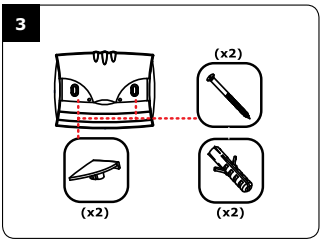
Make sure that there are no pieces missing in the mounting kit. Get the right tools according to the installation type (Drill, screw drivers, metre tape,...) and follow the mounting instructions of the reader.




Measure and mark the center lines to determine the reader position. Drill the fixing screw holes (Diametre: 4MM for the mounting plate and 6MM for the reader). Drill the wiring access area.




**DGLIMWLC**
Insert the brass anchors in the mounting holes, connect the cable to the terminal block, then fasten the reader with the DIAX® screws using the DIAX® spanner. Make sure that the varistor is connected on the lock (refer to page 2 «Recommendations»).




**DGLPMWLC**
Insert the plastic anchors in the mounting holes, connect the cable to the terminal block, Then fasten the reader with the wooden screws Leave an area to access the cable to make the wiring). Put the covers on top of the reader. Make sure that the varistor is connected on the lock (refer to page 2 «Recommendations»).

## 8] NOTES

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