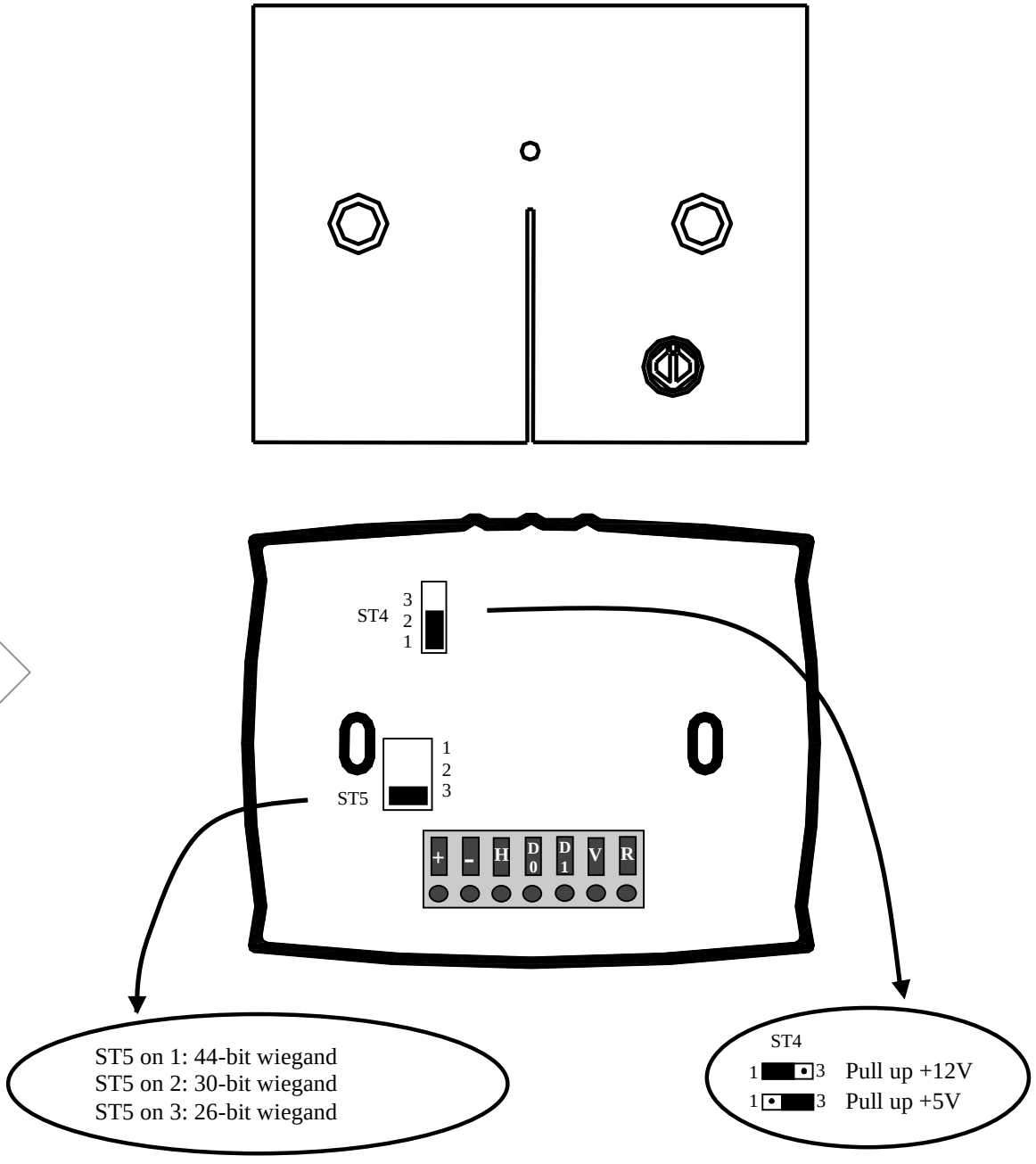
DGLI/W DGLP/W

PROXIMITY READER
26, 30 or 44 BIT WIEGAND

These proximity readers can read most of the proximity badges, cards on the market (125KHz).
On the same reader it is possible to select the format output and the Pull ups voltage.

W I R I N G D I A G R A M



Wiring diagram

+ ----- Input voltage 12V DC

- ----- Input voltage 12V DC

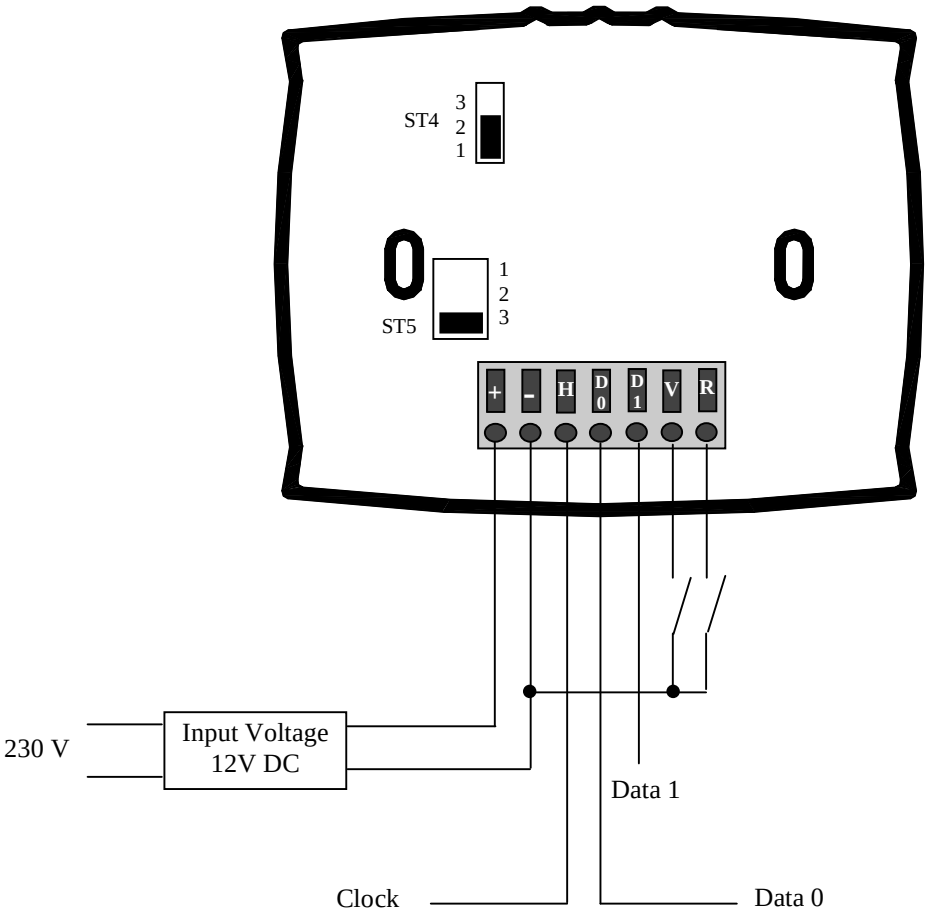
H ----- Clock

D0 ----- Data 0

D1 ----- Data 1

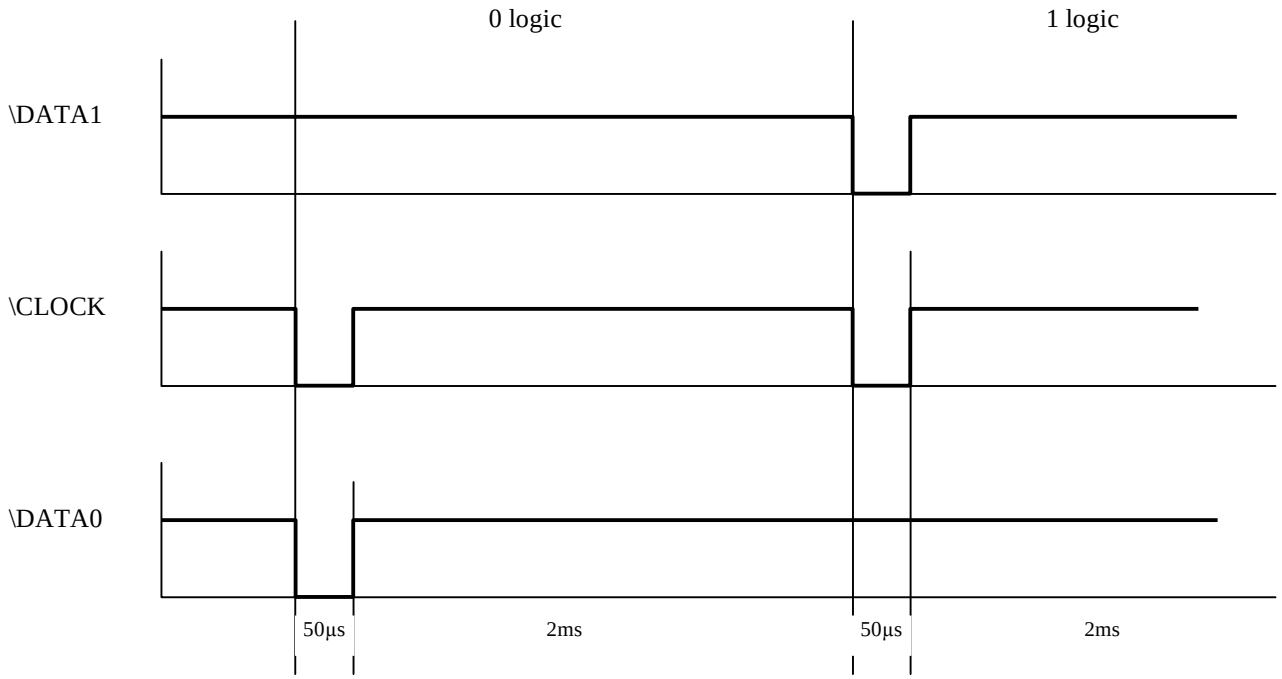
R ----- Red LED

V ----- Green LED



Warning: Do not use a switching power supply.

Chronograms



26-bit Wiegand Output

Place the ST5 jumper on 1

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:

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.

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

Bit 1	Bit 2 … bit 25	bit 26
Even Parity on bit 2…bit13	Data (24 bit)	Odd Parity on bit 14… bit 25

Example: code of the badge is 0100166A37

1	0000	0000	0001	0011	0101	0000	1
Parity 1	0	0	1	3	5	0	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

Put the ST5 jumper on 2

Structure and description of the code

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

30-bit hexadecimal format.

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.

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

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

Example: Temic card decimal code: 689905 in hexadecimal: A86F1

1	0000	0000	1010	1000	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: EM badge hexadecimal code: 0100166A37

1	0000	0000	0001	0001	0110	1011	0110	1
Parity 1	0	1	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

Put the ST5 jumper on 3

Structure and description of the code

44-bit hexadecimal format

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

Data: 10 digit code number hexadecimal MSByte first
Each hexadecimal digit = 4 bit, MSBit first

LRC: 4 bit = or restricted in between the digit of the data, MSBit first

The frame is made of 44 bit and built as follow:

bit 1 …. Bit 40	Bit 41 … bit 44
Data MSBit first	LRC

44 bit, hexadecimal format

Example:

Length Code of 40 bit

digit 1									digit 10	LRC
0000	0001	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 an hexadecimal code