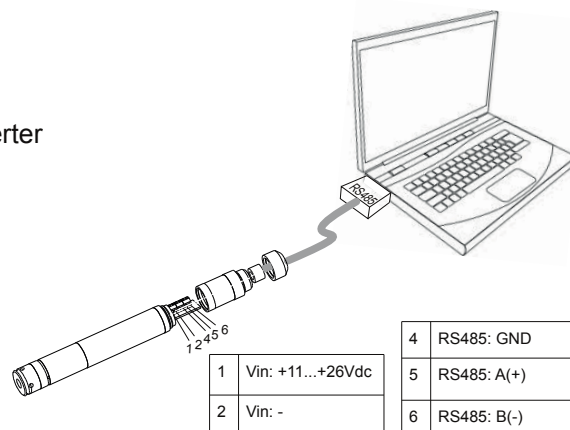**PC COMMUNICATION THROUGH Microsoft HyperTerminal**

It is necessary to connect an RS232-RS485 or USB- RS485 converter
between PC and the sensor.
Select the right COM port in your PC
Set up the new HyperTerminal session:

>   Baud rate: 9600
>   Data bits: 8
>   Parity: None
>   Stop bits: 1
>   Hardware handshaking: No

1	Vin: +11...+26Vdc	4	RS485: GND
		5	RS485: A(+)
2	Vin: -	6	RS485: B(-)

Reading function: "ITCL"

Current reading of the sensor
Write **ITCL** (character time out: 1seg) in the HyperTerminal window and the sensor will answer with the current
reading and state.

State:	1
Punts:	65337
nA:	1240
ppm (x.xx):	142
Alarma:	0
mA(xx.x):	116
N.Buf:	204
dl_r:	0
dl_w:	204

State: 1=reading; 2=Cleaning; 3,4=post-cleaning
Punts: ------
nA: Chlorine reading in nA
ppm: Chlorine reading in ppm x100
Alarma: 0= no alarm; 1=alarm
mA: Chlorine reading in mA x10 (4-20mA)
N.Buf: reading in buffer
dl_r: pointer position in buffer
dl_w: last writed position in buffer

Calibration function: "ITCU"

Allow the user to change the calibration, the relation nA/ppm.
The relation mA/ppm is not allowed to be changed, and this is: 0ppm = 4mA; 3.00ppm = 20mA

Install the sensor in the sensor holder and run the water flow through the sensor.
Write **ITCU** (character time out: 1seg) in the HyperTerminal window and the sensor will answer with the current
value in nA:

```
--- Function USER ---
Clor Nppm: XXX (X.XX)
<ENT> or <ESC>
...2025
...2030
...2032
...2030
```

Once the reading is stable take a sample of the water which is
going through the sensor and check the ppm value by means a
DPD test.
Introduce this value x100 into the HyperTerminal and press
<ENT>.
(Ex.: when DPD test shows 1.45ppm, the value to inctroduce is
145).
The first point is calibrated

Press <ESC> in case you don´t want to change the current calibration of the 0.00 ppm point
If you want to change the 0.00 ppm point , drive the water trhough an active carbon filter to eliminate all the
chlorine in water, before getting in contact with the sensor.

```
Clor 0ppm:
<ENT> or <ESC>
...18
...15
...14
...14
```

Once the reading is stable press <ENT>.
The 0.00ppm point is calibrated

Once the sensor is calibrated in the HyperTerminal window will appear a report with the new calibration, together
with the current firmware release:

```
---Report USER (1.08C)
nA a 0ppm>      14
nA a 3ppm>      4203
nA / ppm>       1401
```

### Reading buffer function: "ITCB"

The sensor has an internal data logger with capacity of 2048 readings (FIFO).

The switch SW2 allows the user to select the sampling frequency:
SW2=OFF: the reading is store every 30'(default)
SW2=ON : the reading is store every 5'

Write **ITCB** (character time out: 1seg) in the HyperTerminal window and the sensor will empty the data stored in the data logger and show the data in the HyperTerminal window.
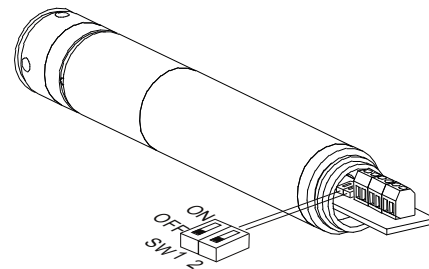
```
---BUFFER
..N: 17
-02 ppm
020 ppm
035 ppm
030 ppm
027 ppm
024 ppm
023 ppm
022 ppm
020 ppm
-01 ppm
-01 ppm
```

N: number of samplings stored in the buffer
xxx: reading in ppm x100 (Ex. " 020 ppm" = 0.20ppm)
-02: power on the sensor
-01: cleaning