DATALOGIC

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S85 RS-485
serial interface
configuration

Monte san Pietro, May 2014

RS485 serial comunication
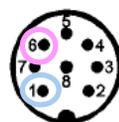
Baud rate= 115200
Parity bit= none
DATA_BIT= 8 bit
STOP_BIT= 1 bit

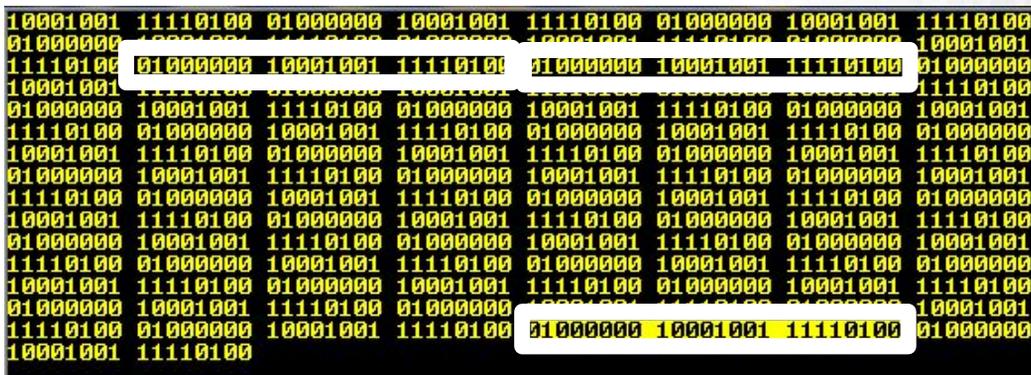Output Message = **3 byte** = 24 bit

1° byte= [**01** (byte n°1, fixed) - XX - data [4 bit] (Most Significant Bits)
2° byte= [**10** (byte n°2, fixed) - data[6 bit]
3° byte= [**11** (byte n°3, fixed) - data[6 bit] (Least Significant Bits)
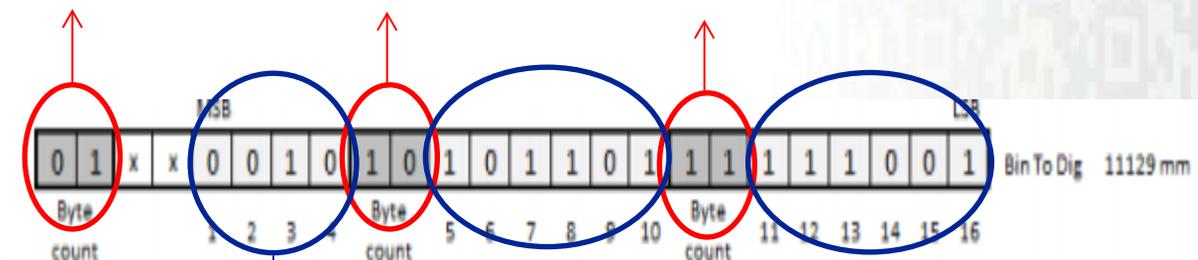
⇒ **Data** = Measure = 16 bit
⇒ Binary -> Decimal [es. 0010 101101 111001 = 11129 mm]

1 (WHITE): RS485 -
2 (BROWN): +24 V ±20 %
3 (GREEN): ANALOGUE OUT
4 (YELLOW): Q1 100mA max.
5 (GREY): Q2 100mA max.
6 (PINK): RS485 +
7 (BLUE): 0 V
8 (RED): MULTIFUNC.INPUT

BYTE n° 1   **BYTE n° 2**   **BYTE n° 3**

DATA [1...4]   DATA [5...10]   DATA[11...16]

Bin To Dig   11129 mm

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Configuration

Select Output Mode from RS-485 folder in the Main Menù. The serial data can be provided in 5 different ways:

-**None**
-**Continuous**
-**On changing Distance**
-**On changing Digital Output**
-**On changing Input**
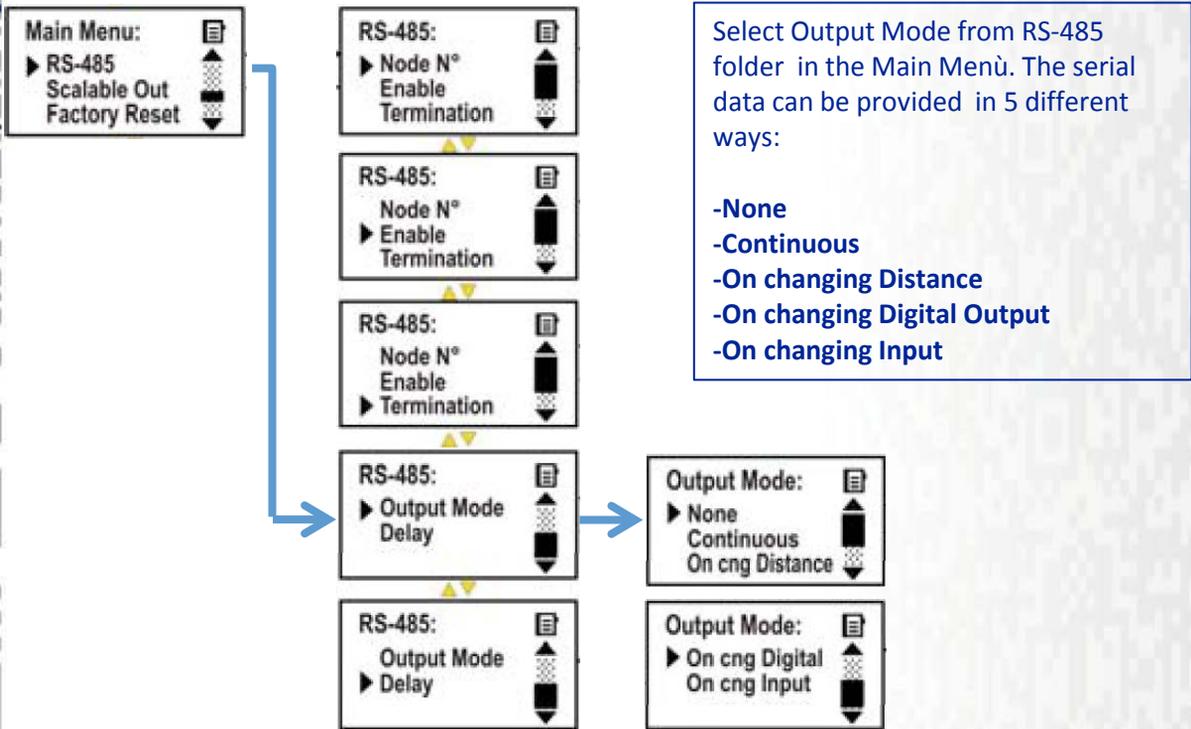
-**None**: the data are provided only after sending to the device an input fixed message, written on the instruction manual), using the same S85 serial interface [bidirectional: pin 1 (RS485-), pin 6 (RS485+)]. This message is 5 byte long and in the third byte is written the Node of requested device. It is the only way to make a multi-drop connection with more than one device.
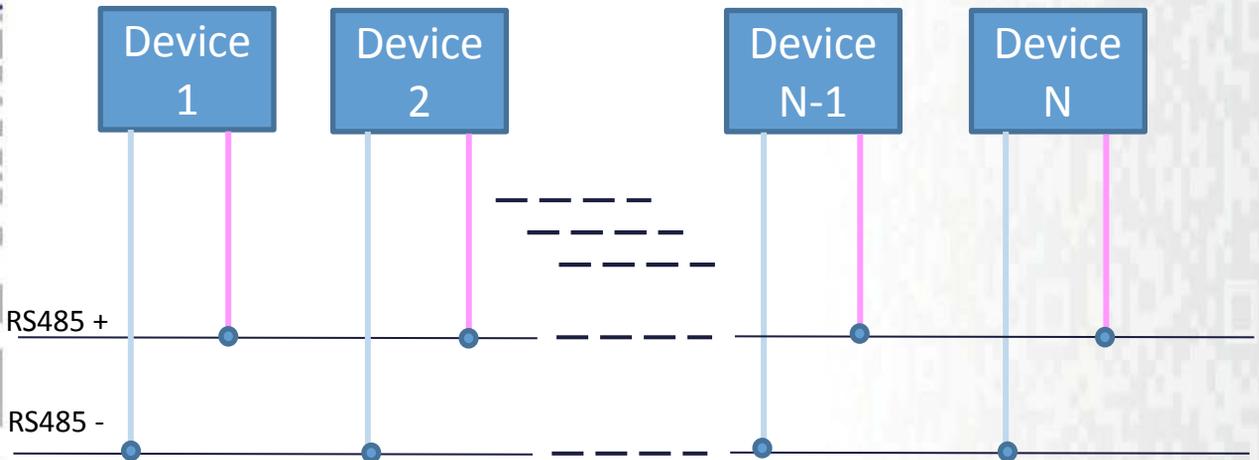
RS-485 Cmd	1° byte	2° byte	3° byte	4° byte	5° byte
Get Measure	"0x40" hex	"0x43" hex	"Node N°" hex	"0x00" hex	"0x01" hex

-**Continuous**: the RS485 data are continuously provided for the post-processing
-**On changing Distance**: the data are provided only when the distance value changes
-**On changing Digital**: the data are provided only when the desired switching point is reached
-**On changing Input**: the data are provided through a request given by the remote input (Multifunction Input)

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Multi-drop connection

1 (WHITE):   RS485 -
2 (BROWN): +24 V ±20 %
3 (GREEN):   ANALOGUE OUT
4 (YELLOW): Q1 100mA max.
5 (GREY):   Q2 100mA max.
6 (PINK):   RS485 +
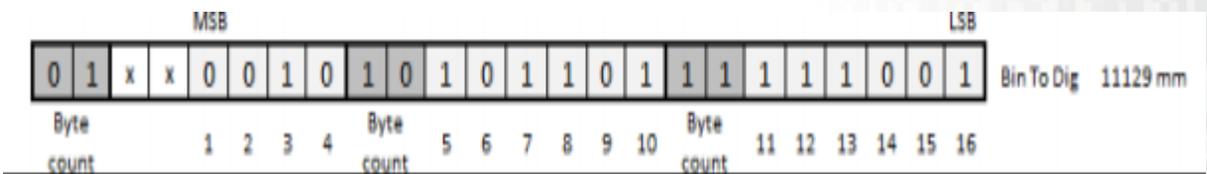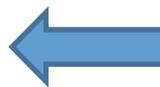7 (BLUE):   0 V
8 (RED):   MULTIFUNC.INPUT

| Device 1 | Device 2 | Device N-1 | Device N |

RS485 +

RS485 -

INPUT message
5 byte

RS-485 Cmd	1° byte	2° byte	3° byte	4° byte	5° byte
Get Measure	'0x40' hex	'0x43' hex	'Node N°' hex	'0x00' hex	'0x01' hex

Device number

OUTPUT message
From requested device
3 byte

MSB																					LSB		
0	1	x	x	0	0	1	0	1	0	1	0	1	1	0	1	1	1	1	1	1	0	0	1

Byte count   1 2 3 4   Byte count   5 6 7 8 9 10   Byte count   11 12 13 14 15 16

Bin To Dig   11129 mm

Thank you

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