

# EMPlus 600

Electronic digital indicator



**MODBUS  
MANUAL**

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Modbus is a client/server protocol for communication between devices connected in a network. Modbus devices communicate using a master-slave technique in which only one device (master) can send messages. The other devices in the network (slave) respond, returning the data requested by the master or executing the action contained in the message sent. A slave is a device connected to a network that processes information and sends the results to the master using the Modbus protocol. The master device can send messages to individual slaves or to the entire network (broadcast) whilst slaves can only respond individually to the master. The Modbus standard used by Eliwell employs the RTU code for data transmission.

## 1.1 - DATA FORMAT (RTU)

The coding model used defines the structure of messages transmitted on the network and the way in which this information is deciphered. The type of coding is usually selected on the basis of specific parameters (baud rate, parity, etc.); furthermore, some devices support only specific coding models, although it must be the same one for all devices connected in a Modbus network. The protocol uses the RTU binary method with bytes configured as follows:

**8 bits for data, non-parity bit (configurable), 2 stop bits.**

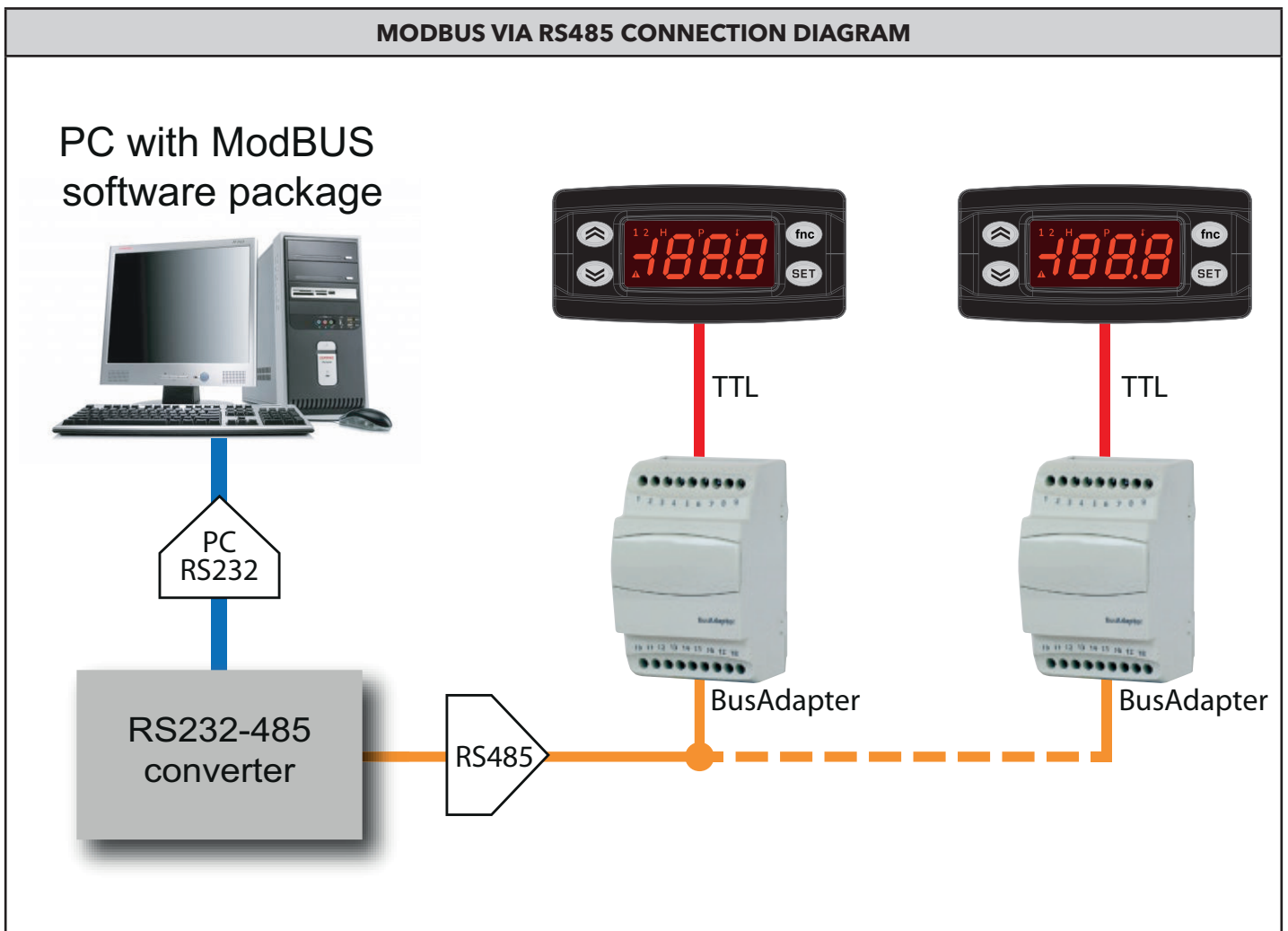
**NOTE: the transmission speed must be set at 9600 baud.**

Parameter setting allows the full configuration of the device. They can be modified using:

- Device keypad
- Copy Card
- Sending data via Modbus protocol directly to an individual controller or broadcasting it using the address 0.

### 1.1.1 - NETWORK

A connection diagrams for using Modbus is shown below:



## 1.1.2 - MODBUS COMMANDS AVAILABLE AND DATA AREAS

The following commands are implemented:

Modbus command	Description of command								
<b>03</b> (hex 0x03)	Read 16 consecutive registers for Client side. Read 1 single register for parameters.								
<b>16</b> (hex 0x10)	Write 15 consecutive registers for Client side. Write 1 register for the parameters.								
<b>43</b> (hex 0x2B)	Read device ID. It is possible to read the following 3 fields: <table border="1" data-bbox="625 562 1442 732"> <thead> <tr> <th>Field code</th> <th>Field description</th> </tr> </thead> <tbody> <tr> <td><b>0</b></td> <td>Manufacturer ID (=“Invensys”)</td> </tr> <tr> <td><b>1</b></td> <td>Device model / polycarbonate ID</td> </tr> <tr> <td><b>2</b></td> <td>Identification of device family (MSK 59x)/version</td> </tr> </tbody> </table>	Field code	Field description	<b>0</b>	Manufacturer ID (=“Invensys”)	<b>1</b>	Device model / polycarbonate ID	<b>2</b>	Identification of device family (MSK 59x)/version
Field code	Field description								
<b>0</b>	Manufacturer ID (=“Invensys”)								
<b>1</b>	Device model / polycarbonate ID								
<b>2</b>	Identification of device family (MSK 59x)/version								

### Length restrictions

Maximum length in bytes of messages sent to device	30 BYTES
Maximum length in bytes of messages received by the device	30 BYTES

## 1.1.3 - ADDRESS CONFIGURATION

The serial TTL - which we will call COM1 - can be used to configure the device, parameters, states, and variables with Modbus via the Modbus protocol. The address of a device in a ModBus message is set via parameter **Adr**.

The address 0 is used for broadcast messages that all slaves recognize. Slaves don't respond to broadcast messages.

The parameters for configuring the device are:

Parameter	Description	Values	Range
<b>PtS</b>	Selection of communication protocol	t	<ul style="list-style-type: none"> <li>• <b>t</b>(0) = Televis</li> <li>• <b>d</b>(1) = Modbus</li> </ul>
<b>Adr</b>	Modbus protocol controller address	1	<ul style="list-style-type: none"> <li>• 1 ... 255</li> </ul>
<b>bAU</b>	Baudrate selection	96	<ul style="list-style-type: none"> <li>• <b>48</b>(0) = 4800</li> <li>• <b>96</b>(1) = 9600</li> <li>• <b>192</b>(2) = 19200</li> <li>• <b>384</b>(3) = 38400</li> </ul>
<b>Pty</b>	Modbus protocol parity bit	E	<ul style="list-style-type: none"> <li>• <b>n</b>(0) = NONE</li> <li>• <b>E</b>(1) = EVEN</li> <li>• <b>o</b>(2) = ODD</li> </ul>
<b>StP</b>	MODBUS stop bit	1b	<ul style="list-style-type: none"> <li>• <b>1b</b>(0) = 1 BIT</li> <li>• <b>2b</b>(1) = 2 BIT</li> </ul>



**NOTE:** To guarantee correct operation, the controller must be switched off and switched on again after modification of parameters **Pty** and **bAU**.

## 1.1.4 - PARAMETER VISIBILITY AND VALUES



- IMPORTANT:**
1. When not indicated otherwise, the parameter is always visible and modifiable, unless customised settings have been configured via serial.
  2. If folder visibility is modified, the new setting will apply to all parameters in the folder.

## 1.2 - MODBUS TABLES

The tables below list all information required to read, write and decode all accessible resources in the device.

There are three tables:

- The "**PARAMETERS TABLE**" contains all device configuration parameters stored in the controller's non-volatile memory, including visibility
- The "**FOLDER VISIBILITY TABLE**" indicates the visibility of the folders containing the parameters
- The "**CLIENT TABLE**" includes all I/O and alarm status resources available in the volatile memory of the instrument.

Description of columns:

- FOLDER:** This indicates the label of the folder containing the parameter in question.
- LABEL:** This indicates the label used to display the parameters in the menu of the controller.
- VALUE PAR. ADDRESS:** The integer part represents the address of the MODBUS register containing the value of the resource to be read or written in the controller. The value after the point indicates the position of the most significant data bit inside the register; if not indicated it is taken to be zero.  
This information is always provided when the register contains more than one information item, and it is necessary to distinguish which bits actually represent the data (the working size of the data indicated in the column DATA SIZE is also taken into consideration).  
Given that the modbus registers have the size of one WORD (16 bit), the index number after the point can vary from 0 (least significant bit **-LSb-**) to 15 (most significant bit **-MSb-**).  
Examples (in binary form the least significant bit is the first on the right):

VAL PAR. ADDRESS	DATA SIZE	Value	Content of register	
8806	WORD	1350	1350	(0000010101000110)
8806	BYTE	70	1350	(00000101 <b>01000110</b> )
8806.8	BYTE	5	1350	( <b>00000101</b> 01000110)
8806.14	1 BIT	0	1350	(0000010101000110)
8806.7	4 BIT	10	1350	(00000 <b>1010</b> 1000110)



**ATTENTION:** when the register contains more than one piece of data, the write procedure is as follows:

- Iread current value of register
- modify bits for the resource concerned
- write register

**VIS PAR. ADDRESS:** The same as above. In this case, the MODBUS register address contains the visibility value of the parameter. By default all parameters have:

- Data size: 2 bit
- Range: 0...3
- \*\* Visibility: 3
- U.M.: num

### \*\* Value Meaning

- Value 3 = parameter or folder always visible
- Value 2 = manufacturer level; these parameters can only be viewed by enter the manufacturer's password (see parameter PS2) (all parameters declared as always visible, parameters visible at the installer level and manufacturer's level will be visible)
- Value 1 = installer level; these parameters can only be viewed by enter the installer's password (see parameter PS1) (all parameters declared as always visible and parameters visible at the installer level)
- Value 0 = parameter or folder NOT visible

1. Parameters and/or folders with a level of visibility <>3 (password-protected) will be visible only if the correct password is entered (installer or manufacturer) following this procedure.
2. Parameters and/or folders with a level of visibility =3 are always visible even without a password: in this case, the following procedure is not necessary.

Examples (in binary form the least significant bit is the first on the right):

**Default visibility:**

VAL PAR. ADDRESS	DATA SIZE	Value	Content of register	
49336.6	2 BIT	3	65535	------(00000000 <b>11</b> 1111111111111111)
49337.0	2 BIT	3	65535	(000000001111111 <b>11</b> 1111111111)
49337.2	2 BIT	3	65535	(0000000011111 <b>11</b> 1111111111)
49337.4	2 BIT	3	65535	(0000000011 <b>11</b> 11111111111111)
49337.6	2 BIT	3	65535	(00000000 <b>11</b> 11111111111111)

<b>R/W:</b>	Indicates if resources are read/write, read-only or write-only: <ul style="list-style-type: none"><li>• <b>R</b> = the resource is read-only</li><li>• <b>W</b> = the resource is write-only</li><li>• <b>RW</b> = the resource can be both read and written to</li></ul>
<b>DESCRIPTION:</b>	This is the description of the meaning of the <b>parameters</b> in the <b>LABEL</b> column.
<b>DATA SIZE:</b>	Indicates the size of the data in bits. <ul style="list-style-type: none"><li>• WORD = 16 bit</li><li>• Byte = 8 bit</li><li>• "n" bit = 0...15 bit based on the value of "n"</li></ul>
<b>CPL:</b>	When the field indicates "Y", the value read by the register needs to be converted because the value represents a number with a sign. In the other cases the value is always positive or null. To carry out conversion, proceed as follows: <ul style="list-style-type: none"><li>• If the value in the register is between 0 and 32.767, the result is the value itself (zero and positive values)</li><li>• If the value in the register is between 32.768 and 65.535, the result is the value of the register - 65.536 (negative values)</li></ul>
<b>RANGE:</b>	Describes the interval of values that can be assigned to the parameter. It can be correlated with other instrument parameters (indicated with the parameter label).
<b>M.U.:</b>	Measurement unit for values converted according to the rules indicated in the CPL and EXP columns.

**2.1 - PARAMETERS TABLE**

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
AL	HAL	16398	49412.2	RW	Max. alarm regulator 1	WORD	Y	LA1 ... 150.0	°C/°F
AL	LAL	16400	49412.4	RW	Min. alarm regulator 1	WORD	Y	-150.0 ... HA1	°C/°F
AL	AFd	16420	49420.2	RW	Alarm differential	WORD		1.0 ... 50.0	°C/°F
AL	PAO	49232	49420.4	RW	Alarm disabling after Power On	BYTE		0 ... 10	hours
AL	tAO	49234	49421.0	RW	Alarm signalling delay	BYTE		0 ... 250	min
AL	tP	49236	49421.4	RW	Enable alarm reset with all buttons	BYTE		n/y	flag
Add	PtS	49277	49431.2	RW	Protocol selection	BYTE		t/d	flag
Add	dEA	49237	49421.6	RW	Device address	BYTE		0 ... 14	num
Add	FAA	49238	49422.0	RW	Family address	BYTE		0 ... 14	num
Add	Adr	49278	49431.4	RW	Modbus protocol controller address	BYTE		1 ... 255	num
Add	bAU	49276	49431.6	RW	Baudrate selection	BYTE		48/96/192/384	num
Add	PtY	49274	49430.6	RW	Modbus parity bit	BYTE		n/E/o	num
Add	StP	49275	49431.0	RW	Modbus stop bit	BYTE		1b/2b	flag
diS	LOC	49239	49422.2	RW	Enable keyboard lock	BYTE		n/y	flag
diS	PS1	49240	49422.4	RW	Value of password 1	BYTE		0 ... 250	num
diS	PS2	49241	49422.6	RW	Value of password 2	BYTE		0 ... 250	num
diS	ndt	49242	49423.0	RW	Display with decimal point	BYTE		n/y	flag
diS	CA1	16422	49423.2	RW	Cell probe calibration	WORD	Y	-30.0 ... 30.0	°C/°F
diS	LdL	16424	49423.6	RW	Minimum value that can be displayed	WORD	Y	-199.9 ... HdL	°C/°F
diS	HdL	16426	49424.0	RW	Maximum value that can be displayed	WORD	Y	LdL... 199.9	°C/°F
diS	dro	49244	49424.2	RW	Selection of °C/°F	BYTE		C/F	flag
CnF	H00	49246	49424.6	RW	Type of probe selection	BYTE		Ptc/ntC	flag
CnF	vis_rEL	---	49429.2	RW	Parameter visibility	2 BIT		0 ... 3	num
CnF	vis_tAb	---	49429.4	RW	Parameter visibility	2 BIT		0 ... 3	num
FPr	vis_UL	---	49430.0	RW	Function visibility	2 BIT		0 ... 3	num
FPr	vis_dL	---	49430.2	RW	Function visibility	2 BIT		0 ... 3	num
FPr	vis_Fr	---	49430.4	RW	Function visibility	2 BIT		0 ... 3	num

## 2.2 - FOLDER VISIBILITY TABLE

LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	RANGE	M.U.
vis_AL	49409.0	RW	<b>AL</b> (Alarms) folder visibility	2 BIT	0 ... 3	num
vis_Add	49409.2	RW	<b>Add</b> (Communication) folder visibility	2 BIT	0 ... 3	num
vis_diS	49409.4	RW	<b>diS</b> (Display) folder visibility	2 BIT	0 ... 3	num
vis_CnF	49409.6	RW	<b>CnF</b> (Configuration) folder visibility	2 BIT	0 ... 3	num
vis_FPr	49410.0	RW	<b>FPr</b> (Copy Card) folder visibility	2 BIT	0 ... 3	num
vis_PA2	49446.1	RW	<b>PA2</b> folder visibility ( <b>Password for accessing Installer parameters</b> )	1 BIT	0 ... 3	num

## 2.3 - CLIENT TABLE



### WARNING!:

RW (Reading/Writing) commands are enabled by activating a timer: it is mandatory to write a WORD (containing a time in seconds) at address 109 (0x6D) before sending any command. The commands will be accepted only within the time herewith set.

LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	RANGE	M.U.
ST1	117	R	Analogue input (control)	WORD	-199.9 ... 199.9	°C/°F
E1	32894.4	R	Analog input 1 failure	1 BIT	0 ... 1	flag
AH1	32894.0	R	High alarm reg. 1	1 BIT	0 ... 1	flag
AL1	32894.2	R	Low alarm reg. 1	1 BIT	0 ... 1	flag
EA	32894.5	R	External	1 BIT	0 ... 1	flag
ON	32895.5	R	On	1 BIT	0 ... 1	flag
AL	32893.4	R	Alarm	1 BIT	0 ... 1	flag
SETR	32895.1	R	Reduced set-point	1 BIT	0 ... 1	flag
ROnOn	32875.6	RW	Instrument On	1 BIT	0 ... 1	flag
ROffOff	32875.7	RW	Instrument Off	1 BIT	0 ... 1	flag
KeyLock	109.2	RW	Auxiliary output On	1 BIT	0 ... 1	flag
KeyUnlock	109.2	RW	Auxiliary output Off	1 BIT	0 ... 1	flag



## 3.1 - PARAMETERS TABLE

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
AL	HAL	16398	49412.2	RW	Max. alarm regulator 1	WORD	Y	LA1 ... 150	num
AL	LAL	16400	49412.4	RW	Min. alarm regulator 1	WORD	Y	-150 ... HA1	num
AL	AFd	16420	49420.2	RW	Alarm differential	WORD		1 ... 50	num
AL	PAO	49232	49420.4	RW	Alarm disabling after Power On	BYTE		0 ... 10	hours
AL	tAO	49234	49421.0	RW	Alarm signalling delay	BYTE		0 ... 250	min
AL	tP	49236	49421.4	RW	Enable alarm reset with all buttons	BYTE		n/y	flag
Add	PtS	49277	49431.2	RW	Protocol selection	BYTE		t/d	flag
Add	dEA	49237	49421.6	RW	Device address	BYTE		0 ... 14	num
Add	FAA	49238	49422.0	RW	Family address	BYTE		0 ... 14	num
Add	Adr	49278	49431.4	RW	Modbus protocol controller address	BYTE		1 ... 255	num
Add	bAU	49276	49431.6	RW	Baudrate selection	BYTE		48/96/192/384	num
Add	PtY	49274	49430.6	RW	Modbus parity bit	BYTE		n/E/o	num
Add	StP	49275	49431.0	RW	Modbus stop bit	BYTE		1b/2b	flag
diS	LOC	49239	49422.2	RW	Enable keyboard lock	BYTE		n/y	flag
diS	PS1	49240	49422.4	RW	Value of password 1	BYTE		0 ... 250	num
diS	PS2	49241	49422.6	RW	Value of password 2	BYTE		0 ... 250	num
diS	ndt	49242	49423.0	RW	Display with decimal point	BYTE		n/y	flag
diS	CA1	16422	49423.2	RW	Cell probe calibration	WORD	Y	-30 ... 30	num
diS	LdL	16424	49423.6	RW	Minimum value that can be displayed	WORD	Y	-1999 ... HdL	num
diS	HdL	16426	49424.0	RW	Maximum value that can be displayed	WORD	Y	LdL ... 1999	num
diS	dro	49244	49424.2	RW	Selection of unit of measurement for probe 1	BYTE		n/t/P/H	num
CnF	H00	49246	49424.6	RW	Type of probe selection	BYTE		420/020 010/05/01	num
CnF	H03	16428	49425.4	RW	Minimum limit for current input	WORD		-1999 ... 1999	num
CnF	H04	16430	49425.4	RW	Maximum limit for current input	WORD		-1999 ... 1999	num
CnF	vis_rEL	---	49429.2	RW	Parameter visibility	2 BIT		0 ... 3	num
CnF	vis_tAb	---	49429.4	RW	Parameter visibility	2 BIT		0 ... 3	num
FPr	vis_UL	---	49430.0	RW	Function visibility	2 BIT		0 ... 3	num
FPr	vis_dL	---	49430.2	RW	Function visibility	2 BIT		0 ... 3	num
FPr	vis_Fr	---	49430.4	RW	Function visibility	2 BIT		0 ... 3	num

## 3.2 - FOLDER VISIBILITY TABLE

LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	RANGE	M.U.
vis_AL	49409.0	RW	<b>AL</b> (Alarms) folder visibility	2 BIT	0 ... 3	num
vis_Add	49409.2	RW	<b>Add</b> (Communication) folder visibility	2 BIT	0 ... 3	num
vis_diS	49409.4	RW	<b>diS</b> (Display) folder visibility	2 BIT	0 ... 3	num
vis_CnF	49409.6	RW	<b>CnF</b> (Configuration) folder visibility	2 BIT	0 ... 3	num
vis_FPr	49410.0	RW	<b>FPr</b> (Copy Card) folder visibility	2 BIT	0 ... 3	num
vis_PA2	49446.1	RW	<b>PA2</b> folder visibility ( <b>Password for accessing Installer parameters</b> )	1 BIT	0 ... 3	num

## 3.3 - CLIENT TABLE



### WARNING!:

RW (Reading/Writing) commands are enabled by activating a timer: it is mandatory to write a WORD (containing a time in seconds) at address 107 (0x6B) before sending any command. The commands will be accepted only within the time herewith set.

LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	RANGE	M.U.
ST1	115	R	Analogue input (control)	WORD	-199,9 ... 199,9	°C/°F
E1	32892.4	R	Analog input 1 failure	1 BIT	0 ... 1	flag
AH1	32892.0	R	High alarm reg. 1	1 BIT	0 ... 1	flag
AL1	32892.2	R	Low alarm reg. 1	1 BIT	0 ... 1	flag
EA	32892.5	R	External	1 BIT	0 ... 1	flag
ON	32893.5	R	On	1 BIT	0 ... 1	flag
AL	32891.4	R	Alarm	1 BIT	0 ... 1	flag
SETR	32893.1	R	Reduced set-point	1 BIT	0 ... 1	flag
ROnOn	32873.6	RW	Instrument On	1 BIT	0 ... 1	flag
ROffOff	32873.7	RW	Instrument Off	1 BIT	0 ... 1	flag
KeyLock	107.2	RW	Keyboard Lock	1 BIT	0 ... 1	flag
KeyUnlock	107.4	RW	Keyboard Unlock	1 BIT	0 ... 1	flag

## 4.1 - PARAMETERS TABLE

FOLDER	LABEL	Value PAR. ADDRESS	Vis. PAR. ADDRESS	R/W	DESCRIPTION	DATA SIZE	CPL	RANGE	M.U.
AL	HAL	16398	49412.2	RW	Max. alarm regulator 1	WORD	Y	LA1 ... 1999	°C/°F
AL	LAL	16400	49412.4	RW	Min. alarm regulator 1	WORD	Y	-328 ... HA1	°C/°F
AL	AFd	16420	49420.2	RW	Alarm differential	WORD		1.0 ... 50.0	°C/°F
AL	PAO	49232	49420.4	RW	Alarm disabling after Power On	BYTE		0 ... 10	hours
AL	tAO	49234	49421.0	RW	Alarm signalling delay	BYTE		0 ... 250	min
AL	tP	49236	49421.4	RW	Enable alarm reset with all buttons	BYTE		n/y	flag
Add	PtS	49277	49431.2	RW	Protocol selection	BYTE		t/d	flag
Add	dEA	49237	49421.6	RW	Device address	BYTE		0 ... 14	num
Add	FAA	49238	49422.0	RW	Family address	BYTE		0 ... 14	num
Add	Adr	49278	49431.4	RW	Modbus protocol controller address	BYTE		1 ... 255	num
Add	bAU	49276	49431.6	RW	Baudrate selection	BYTE		48/96/192/384	num
Add	PtY	49274	49430.6	RW	Modbus parity bit	BYTE		n/E/o	num
Add	StP	49275	49431.0	RW	Modbus stop bit	BYTE		1b/2b	flag
diS	LOC	49239	49422.2	RW	Enable keyboard lock	BYTE		n/y	flag
diS	PS1	49240	49422.4	RW	Value of password 1	BYTE		0 ... 250	num
diS	PS2	49241	49422.6	RW	Value of password 2	BYTE		0 ... 250	num
diS	ndt	49242	49423.0	RW	Display with decimal point	BYTE		n/y	flag
diS	CA1	16422	49423.2	RW	Cell probe calibration	WORD	Y	-30.0 ... 30.0	°C/°F
diS	LdL	16424	49423.6	RW	Minimum value that can be displayed	WORD	Y	-328 ... HdL	°C/°F
diS	HdL	16426	49424.0	RW	Maximum value that can be displayed	WORD	Y	LdL ... 1350	°C/°F
diS	dro	49244	49424.2	RW	Selection of °C/°F	BYTE		C/F	flag
CnF	H00	49246	49424.6	RW	Type of probe selection	BYTE		Jtc/Htc/Pt1	num
CnF	vis_rEL	---	49429.2	RW	Parameter visibility	2 BIT		0 ... 3	num
CnF	vis_tAb	---	49429.4	RW	Parameter visibility	2 BIT		0 ... 3	num
FPr	vis_UL	---	49430.0	RW	Function visibility	2 BIT		0 ... 3	num
FPr	vis_dL	---	49430.2	RW	Function visibility	2 BIT		0 ... 3	num
FPr	vis_Fr	---	49430.4	RW	Function visibility	2 BIT		0 ... 3	num

## 4.2 - FOLDER VISIBILITY TABLE

LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	RANGE	M.U.
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vis_Add	49409.2	RW	<b>Add</b> (Communication) folder visibility	2 BIT	0 ... 3	num
vis_diS	49409.4	RW	<b>diS</b> (Display) folder visibility	2 BIT	0 ... 3	num
vis_CnF	49409.6	RW	<b>CnF</b> (Configuration) folder visibility	2 BIT	0 ... 3	num
vis_FPr	49410.0	RW	<b>FPr</b> (Copy Card) folder visibility	2 BIT	0 ... 3	num
vis_PA2	49446.4	RW	<b>PA2</b> folder visibility (Password for accessing Installer parameters)	1 BIT	0 ... 3	num

## 4.3 - CLIENT TABLE



### WARNING!:

RW (Reading/Writing) commands are enabled by activating a timer: it is mandatory to write a WORD (containing a time in seconds) at address 107 (0x6B) before sending any command. The commands will be accepted only within the time herewith set.

LABEL	ADDRESS	R/W	DESCRIPTION	DATA SIZE	RANGE	M.U.
ST1	115	R	Analogue input (control)	WORD	-199,9 ... 199,9	°C/°F
E1	32888.4	R	Analog input 1 failure	1 BIT	0 ... 1	flag
AH1	32888.0	R	High alarm reg. 1	1 BIT	0 ... 1	flag
AL1	32888.2	R	Low alarm reg. 1	1 BIT	0 ... 1	flag
EA	32888.5	R	External	1 BIT	0 ... 1	flag
ON	32889.5	R	On	1 BIT	0 ... 1	flag
AL	32887.4	R	Alarm	1 BIT	0 ... 1	flag
SETR	32889.1	R	Reduced set-point	1 BIT	0 ... 1	flag
ROnOn	32873.6	RW	Instrument On	1 BIT	0 ... 1	flag
ROffOff	32873.7	RW	Instrument Off	1 BIT	0 ... 1	flag
KeyLock	107.2	RW	Keyboard Lock	1 BIT	0 ... 1	flag
KeyUnlock	107.2	RW	Keyboard Unlock	1 BIT	0 ... 1	flag

### 5.1 - DISCLAIMER

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### 5.2 - DISPOSAL

 The appliance (or the product) must be disposed of separately in compliance with the local standards in force on waste disposal

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