USER MANUAL

R-GWR

INDUSTRIAL ETHERNET RADIO GATEWAY

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ORIGINAL INSTRUCTIONS

Introduction

The content of this documentation refers to products and technologies described in it.
All technical data contained in the document may be changed without notice.
The content of this documentation is subject to periodic review.
To use the product safely and effectively, read the following instructions carefully before use.
The product must be used only for the use for which it was designed and manufactured: any other use is under the full responsibility of the user.
Installation, programming and set-up are allowed only to authorized, physically and intellectually suitable operators.
Set-up must be performed only after correct installation and the user must follow all the operations described in the installation manual carefully.
Seneca is not responsible for failures, breakages and accidents caused by ignorance or failure to apply the stated requirements.
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Technical specifications are subject to change without notice.

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Document revisions

DATE	REVISION	NOTES	AUTHOR
24/02/2021	0	First revision	MM
24/03/2021	1	Removed Easy Setup2 software and corrected the name of Seneca Discovery Device	AZ
06/12/2021	2	Added sensor battery status logs	AZ

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1. *INTRODUCTION*

In any case, SENECA s.r.l. or its suppliers will not be responsible for the loss of data/revenue or consequential or incidental damages due to negligence or bad/improper management of the device, even if SENECA is well aware of these possible damages.
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1.1. DESCRIPTION

The R-GWR gateway is a device capable of receiving information from radio sensors and making it available both through the S485/RS232 serial port and through the Ethernet port.

Model	Description	Communication protocols
R-GWR	Radio Gateway with 1 serial port and 1 Ethernet port. Max 32 Lora sensors.	Modbus TCP-IP Modbus RTU

1.2. COMMUNICATION PORT SPECIFICATIONS

ETHERNET COMMUNICATION PORTS	
Number	1
Type	100 Mbits

RS232/RS485 COMMUNICATION PORT	
Number	1
Baudrate	From 1200 to 115200 bit/s configurable
Parity, Data bit, Stop bit	Configurable

R-GWR COMMUNICATION PROTOCOLS SUPPORTED	
Modbus RTU slave	From RS485/RS232 Port
Modbus TCP-IP	From Ethernet

2. CONNECTION OF THE DEVICES TO A NETWORK

2.1. CONNECTION OF THE DEVICE TO A NETWORK

The factory configuration of the IP address is:

Static address: 192.168.90.101

Therefore, multiple devices must not be inserted on the same network with the same static IP.
If you want to connect multiple devices on the same network, you need to change the IP address configuration via the web server.

DO NOT CONNECT 2 OR MORE FACTORY-CONFIGURED DEVICES ON THE SAME NETWORK, OR THE ETHERNET INTERFACE WILL NOT WORK (192.168.90.101 IP ADDRESS CONFLICT)

If the addressing mode with DHCP is activated and an IP address is not received within 1 minute, the device will set an IP address with a fixed error:

169.254.x.y

Where x.y are the last two values of the MAC ADDRESS.
This way it is possible to install more I/O of the R series and then configure the IP with the SENECA DISCOVERY DEVICE software even on networks without a DHCP server.

3. OPERATING PRINCIPLE

The radio sensors send data via the Lora radio system. This technology allows you to travel long distances and keep battery consumption at very low levels.

3.1. SENDING DATA FROM THE SENSORS TO THE R-GWR GATEWAY

The radio sensor can send data in two ways:

1) Timed
2) Timed + Event

In mode 1 the sensor sends data with a configurable time interval.
In mode 2 the sensor sends the data with a configurable time interval but, in the event of a digital input event, it immediately sends the data.

Each R-GWR gateway can manage up to a maximum of 32 sensors.

3.2. COMMUNICATION WITH THE R-GWR GATEWAY

When the gateway receives a packet from an associated sensor it responds with an acknowledge packet.
If the acknowledge packet is not received, the sensor adds a random time (from 1 to 8 seconds) to the next sending.
If sending an alarm packet (and if sending on "alarm" event is enabled) the sensor makes 5 attempts with a random delay between them before returning to low consumption again.
When the R-GWR gateway sends the acknowledge packet, it also appends the current configuration (so if you change the sensor configuration in the gateway this will be sent with the next communication).
When the ALARM parameter is active, an IN0 or IN1 input event immediately activates the sending of the packet.

IT IS ALWAYS POSSIBLE TO FORCE SENDING CURRENT DATA FROM THE SENSOR TO THE GATEWAY BY PRESSING THE IN3 PAIRING BUTTON.

IF THE R-GWR GATEWAY REMAINS OFF FOR A LONG TIME, IT IS NECESSARY TO TURN OFF THE RADIO SENSORS IN ORDER TO NOT DISCHARGE THE BATTERIES

3.3. AVAILABLE MEASUREMENTS

Depending on the sensor model, the following measurements are available:

SENSOR	*TEMP*	*HUMIDITY*	*IN0*	*IN1*	*IN2*	*IN3*	*BATTERY*
Sensor model	Temperature measurement in °C	Relative humidity measurement in %	Configurable digital/analogue input	Configurable digital input	Tamper digital input	Pairing button status	Battery status
R-GWR-IP-1	Yes	Yes	Can be configured as 0-30V analogue measurement or counter	No	No	Yes	Yes
R-GWR-S-1	Yes	Yes	Can be configured as 0-30V analogue measurement or counter or Level 1 water	Status of the reed relay or Level 2 water	Yes Connected to the lid	Yes	Yes

4. WEB SERVER OF THE GATEWAY DEVICE

4.1. ACCESS TO THE WEB SERVER

Access to the web server takes place using a web browser and entering the IP address of the device.
To find out the IP address of the device, use the "search" function of the “SENECA DISCOVERY DEVICE" software.

On first access the user name and password will be requested.
The default values are:

Username: admin
Password: admin

AFTER THE FIRST ACCESS CHANGE USER NAME AND PASSWORD IN ORDER TO PREVENT ACCESS TO THE DEVICE TO UNAUTHORIZED PEOPLE.

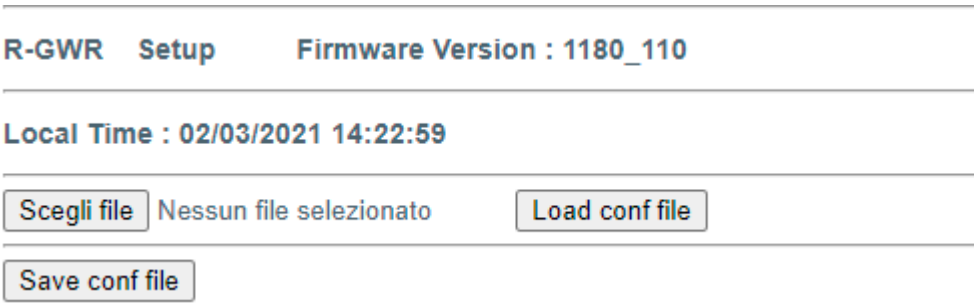
IF THE PARAMETERS TO ACCESS THE WEB SERVER HAVE BEEN LOST, IT IS NECESSARY TO RESET THE FACTORY-SET CONFIGURATION (SEE CHAPTER 6)

4.2. DEVICE CONFIGURATION

To configure the device, access the web server and select the section you are interested in.
After a modification to the configuration has been made, the changes must be confirmed with the "***APPLY***" button and the device will restart autonomously.
The ***Reboot*** button reboots the device (not necessary in the event of a configuration change).
The ***Default*** button returns all the page parameters to the default settings.

4.2.1. SETUP SECTION

At the top of the screen you can load a previous configuration or save it:



The meaning of the other fields is as follows:

DHCP (default: Disabled)
Sets the DHCP client to get an IP address automatically.

STATIC IP* (default: 192.168.90.101*)
Sets the device static address. Careful not to enter devices with the same IP address into the same network.

STATIC IP MASK (default: 255.255.255.0)
Sets the mask for the IP network.

STATIC GATEWAY (default: 192.168.90.1)
Sets the gateway address.

MODBUS TCP-IP PORT (default: 502)
Sets the port for the TCP-IP Modbus server.

BAUDRATE MODBUS RTU (SER) (default: 38400 baud)
Sets the baud rate for the RS485 communication port.

DATA MODBUS RTU (SER) (default: 8 bit)
Sets the number of bits for the RS485 communication port.

PARITY MODBUS RTU (SER) (default: None)
Sets the parity for the RS485 communication port.

STOP BIT MODBUS RTU (SER) (default: 1 bit)
Sets the number of stop bits for the RS485 communication port.

PORT TIMEOUT [ms]
Sets the maximum timeout to receive a complete and valid modbus
packet from the serial port.

IP CHANGE DISCOVERY (default: Disabled)
Allows you to enable or not the IP configuration change from the Seneca Discovery Device software.

SYNC CLOCK UPDATE EVERY (default: Day)
Sets the clock synchronization time from the NTP server.

NTP SERVER 1 ADDRESS
Sets the NTP server from which to synchronize the date/time.

NTP SERVER 2 ADDRESS
Sets the backup NTP server from which to synchronize the date/time.

DAYLIGHT SAVING TIME
Selects whether or not to activate the automatic switchover to winter/summer time

GMT
Sets the time zone

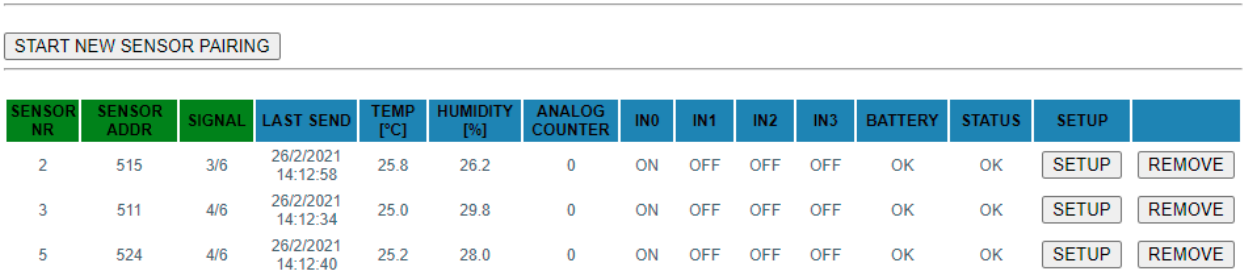
WEB SERVER USER NAME (default: admin)
Sets the user name to access the web server.

CONFIGURATION/WEB SERVER PASSWORD (default: admin)
Sets the password to access the web server and to read/write the configuration (if enabled).

WEB SERVER PORT (default: 80)
Sets the communication port for the web server.

4.2.2. STATUS SECTION

In the Status section, you can view the data from the paired radio sensors in real time, pair new sensors, configure them and remove them from the pairing.


START NEW SENSOR PAIRING

SENSOR NR	SENSOR ADDR	SIGNAL	LAST SEND	TEMP [°C]	HUMIDITY [%]	ANALOG COUNTER	IN0	IN1	IN2	IN3	BATTERY	STATUS	SETUP	
2	515	3/6	26/2/2021 14:12:58	25.8	26.2	0	ON	OFF	OFF	OFF	OK	OK	SETUP	REMOVE
3	511	4/6	26/2/2021 14:12:34	25.0	29.8	0	ON	OFF	OFF	OFF	OK	OK	SETUP	REMOVE
5	524	4/6	26/2/2021 14:12:40	25.2	28.0	0	ON	OFF	OFF	OFF	OK	OK	SETUP	REMOVE

4.2.2.1. PAIRING A NEW SENSOR

To pair one or more new sensors it is necessary to follow the procedure below:

1) Power up the R-GWR gateway and the radio sensor
2) In the gateway press the "START NEW SENSOR PAIRING" button in the "Status" section of the web server. The STS LED of the gateway will start flashing.
3) In the sensor you want to pair, press and hold the pairing button until the red LED lights up (transmission).
4) If the green LED of the radio sensor (radio reception) lights up, the association was successful and the new sensor with its data will appear in the "Status" section of the R-GWR gateway web server.
5) Press the pairing buttons of each sensor you want to pair as in the previous point
6) Once all the sensors have been paired, press the "STOP NEW SENSOR PAIRING" button in the R-GWR web server “status” section.
7) The STS LED of the R-GWR gateway stops flashing.

4.2.2.2. MEANING OF THE STATUS PAGE COLUMNS

NR SENSOR
Represents the sensor number at the time of pairing.

ADDR SENSOR
Represents the unique address of the sensor (not editable).

LAST SEND
Represents the date/time of the last sending event.

TEMP, HUMIDITY
They represent the temperature and humidity values detected by the sensor respectively.

ANALOG COUNTER
Represents the measurement value of the IN0 input if configured as an analogue input (0-30V) or counter.

IN0
Represents the value of the IN0 input if configured as a digital input.

IN1
Represents the value of the IN1 input if available in the sensor model in use.

IN2
Represents the value of the tamper input if available in the sensor model in use.

IN3
Represents the value of the pairing button.

BATTERY
Represents the state of the battery: OK if the battery is full, FAIL if the battery needs to be replaced.

STATUS

Represents the status of the sensor, if the sensor has not sent the data within the FAIL TIMEOUT time, the STATUS field goes into fail.

IT IS POSSIBLE THAT IN SOME SITUATIONS YOU CANNOT DETECT THE CORRECT STATUS OF THE BATTERY, AND THEREFORE IT WILL BE DISCHARGED EVEN IF THE STATUS IS OK.

4.2.2.3. CONFIGURING A SENSOR

At each communication, the gateway sends the current configuration to each radio sensor.

IF YOU CHANGE THE CONFIGURATION OF A SENSOR IN THE R-GWR WEB SERVER, THIS WILL BE SENT TO THE SENSOR IN THE NEXT COMMUNICATION

To configure a sensor, press the relative "SETUP" button in the "Status" section of the R-GWR web server:

SEND TIME [x 30s] (default: 15 minutes)

Represents the time to send data to the gateway in quanta of 30 seconds

INPUT 0 (IN0)

Configures the type of operation of input0 (terminal input):

ALARM-FALLING EDGE = Digital input active in the transition from 1-> 0 of the input signal

ALARM-EDGE = Digital input active in the passage from 1-> 0 and from 0-> 1 of the input signal

COUNTER = The counter on digital input IN0 is activated, the count takes place in the transition from 1-> 0

WATER SENSOR = The flood detection mode is activated, it also requires the Water Sensor configuration on INPUT1.

ANALOG INPUT = The 0-30V voltage measurement mode is activated from the IN0 input

INPUT 1 (IN1)

Configures the type of operation of input1 (digital input / magnetic reed relay):

ALARM-REED-RISING EDGE = Digital input active in the transition from 0-> 1 of the input signal

ALARM-REED-FALLING EDGE = Digital input active in the transition from 1-> 0 of the input signal

WATER SENSOR = The flood detection mode is activated

ALARM

Selects whether to activate the radio packet immediate sending mode for inputs IN0 and IN1. It is considered only for the following operating modes:

INPUT0 = ALARM-RISING EDGE, ALARM-FALLING EDGE or *WATER SENSOR*

INPUT1 = ALARM-REED-RISING EDGE, ALARM-REED-FALLING EDGE or *WATER SENSOR*

LINK TX

Sets the transmission power of the radio sensor, selectable between:

0 dB (minimum power, maximum battery life) to 14 dB (maximum power, minimum battery life)

AUTO allows you to automatically calculate the optimal transmission power.

In AUTO mode the sensor performs the following procedure:

1) The sensor sets the minimum power (0 dB) and, at each sending, raises this power
2) When the sensor gets 2 consecutive responses from the gateway it uses this transmission power.

It is therefore possible that there are transmission errors in the initial phase if this mode of operation is used. The procedure can take from 2 to 5 transmissions to be completed and therefore, based on the sending time set, it can last several minutes/hours.

To speed up the procedure, it is possible to force communication in the radio sensor by pressing the pairing button IN3 for at least 5 communications.

To carry out a new procedure it is necessary to follow the following points:

1) Set a transmission power other than AUTO (for example the maximum power of 14 dB)
2) Forcing a communication in the radio sensor (pressing the IN3 pairing button)
3) Set the transmission power back to AUTO
4) Forcing a communication in the radio sensor (pressing the IN3 pairing button)

At this point the procedure for calculating the optimal transmission power will begin.

FAIL MODE

LAST VALUE = In case of sensor fail (communication timeout) the gateway keeps the last values sent by the radio sensor

LOAD FAIL VALUE = In case of sensor fail (communication timeout) the gateway loads the fail values

FAIL TIMEOUT [x 30s]

Sets the fail time after which, if there has been no communication, the sensor is considered to be in a fail state. Sets this time so that it is always greater than the sensor send time (SEND TIME).

FAIL VALUE "CNT0/ANG0", "TEMP", "HUMIDITY", "INPUT0", "INPUT1", "INPUT2", "INPUT3"

Sets the value to load in case of fail in the respective variable

INHIBITION TIME [min]

Sets whether or not to enable the inhibition for inputs IN0 and IN1 when they are configured as "alarm" (on event). Any event that occurs before this time has expired from the previous one is ignored. If enabled, it is possible to choose an inhibition time between 5 and 75 minutes.

An event that occurs before the inhibition time has expired reloads the inhibition time. For example, if the inhibition time is 5 minutes and a new event occurs after 4 minutes, the inhibition is reset for another 5 minutes.

4.3. FIRMWARE UPDATE SECTION

The “Firmware Update” section allows you to update the device firmware in order to obtain new functions.

NOT TO DAMAGE THE DEVICE DO NOT REMOVE THE POWER SUPPLY DURING THE FIRMWARE UPDATE OPERATION.

4.4. LOCAL TIME SETUP SECTION

Allows you to set the current date/time in case it is not possible to access the NTP servers.

The date is now kept for a few days even when the device is not powered.

5. BATTERY LIFE

Battery life depends on:

- the type of installation.
- the type of configuration.
- the temperature.
- how good the battery is.
- how good the radio link is.

The following table is calculated as follows:

- without sensor input connections
- at a temperature of 20°C
- with signal transmitted at 15 dB (maximum power)

SENSOR	***TYPICAL BATTERY CAPACITY AT 20°C***	***MAXIMUM ESTIMATED LIFE***				
		SENDING EVERY 60 MIN	***SENDING EVERY 30 MIN***	***SENDING EVERY 15 MIN***	***SENDING EVERY 10 MIN***	***SENDING EVERY 1 MIN***
R-GWR-S-1	CR2 900 mAh	Up to 680 days	Up to 500 days	Up to 320 days	Up to 230 days	Up to 28 days
R-GWR-IP-1	CR123A 1650 mAh	Up to 1280 days	Up to 920 days	Up to 590 days	Up to 430 days	Up to 52 days

6. RESETTING THE DEVICE TO FACTORY CONFIGURATION

It is possible to reset the device to the factory configuration using the following procedure:

1) With the device off, set dip switch SW2 dip 1 and 2 to ON
2) Power up the device and wait 10 seconds
3) Turn off the device
4) With the device off, set dip switch SW2 dip 1 and 2 to OFF
5) Power up the device
6) The device has now been reset to the factory configuration

7. SUPPORTED MODBUS COMMUNICATION PROTOCOLS

The Modbus communication protocols supported are:

- Modbus RTU Slave (from the RS485/RS232 port)
- Modbus TCP-IP Server (from Ethernet port) max 8 client

For more information on these protocols, see the website:
http://www.modbus.org/specs.php.

7.1. SUPPORTED MODBUS FUNCTION CODES

The following Modbus functions are supported:

- Read Holding Register (function 3)

All 32-bit values are contained in 2 consecutive registers

Any registers with RW* (in flash memory) can be written up to 10000 times
The PLC/Master Modbus programmer must not exceed this limit

8. MODBUS REGISTER TABLE

The following abbreviations are used in the register tables:

MS = More significant
LS = Less significant
MSW = 16 most significant bits
LSW = 16 least significant bits
RO = Register in read-only
RW = Read/write register
RW * = Register in reading and writing contained in flash memory, writable a maximum of 10000 times.
Unsigned 16 bit = unsigned integer register, can take values from 0 to 65535
Signed 16 bit = signed integer register can take values from -32768 to +32767
Float 32 bits = Single-precision floating point register with 32 bits (IEEE 754) https://en.wikipedia.org/wiki/IEEE_754
BIT = Boolean registry, can be 0 (false) or 1 (true)

8.1. R-GWR: MODBUS 4X HOLDING REGISTERS TABLE (FUNCTION CODE 3)

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40001	0	MACHINE ID	-	Device ID	RO	UNSIGNED 16 BIT
40002	1	FW REVISION	-	FW revision	RO	UNSIGNED 16 BIT
40003	2	HW REVISION	-	HW revision	RO	UNSIGNED 16 BIT
40004	3	RESERVED	-	-	RO	UNSIGNED 16 BIT
40005	4	RESERVED	-	-	RW	UNSIGNED 16 BIT
40006	5	RESERVED	-	-	RW	UNSIGNED 16 BIT
40007	6	RESERVED	-	-	RW	UNSIGNED 16 BIT
40008	7	RESERVED	-	-	RW	UNSIGNED 16 BIT
40009	8	RESERVED		-	RW	UNSIGNED 16 BIT
40010	9	RESERVED		-	RW	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40550	549	SENSOR SERIAL CODE	1	Sensor serial code MSW	RO	UNSIGNED 32
40551	550			Sensor serial code LSW	RO	
40552	551	SENSOR SIGNAL LEVEL	1	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40553	552	SENSOR SERIAL CODE	2	Sensor serial code MSW	RO	UNSIGNED 32
40554	553			Sensor serial code LSW	RO	
40555	554	SENSOR SIGNAL LEVEL	2	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40556	555	SENSOR SERIAL CODE	3	Sensor serial code MSW	RO	UNSIGNED 32
40557	556			Sensor serial code LSW	RO	
40558	557	SENSOR SIGNAL LEVEL	3	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40559	558	SENSOR SERIAL CODE	4	Sensor serial code MSW	RO	UNSIGNED 32
40560	559			Sensor serial code LSW	RO	
40561	560	SENSOR SIGNAL LEVEL	4	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40562	561	SENSOR SERIAL CODE	5	Sensor serial code MSW	RO	UNSIGNED 32
40563	562			Sensor serial code LSW	RO	
40564	563	SENSOR SIGNAL LEVEL	5	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40565	564	SENSOR SERIAL CODE	6	Sensor serial code MSW	RO	UNSIGNED 32
40566	565			Sensor serial code LSW	RO	

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40567	566	SENSOR SIGNAL LEVEL	6	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40568	567	SENSOR SERIAL CODE	7	Sensor serial code MSW	RO	UNSIGNED 32
40569	568			Sensor serial code LSW	RO	
40570	569	SENSOR SIGNAL LEVEL	7	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40571	570	SENSOR SERIAL CODE	8	Sensor serial code MSW	RO	UNSIGNED 32
40572	571			Sensor serial code LSW	RO	
40573	572	SENSOR SIGNAL LEVEL	8	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40574	573	SENSOR SERIAL CODE	9	Sensor serial code MSW	RO	UNSIGNED 32
40575	574			Sensor serial code LSW	RO	
40576	575	SENSOR SIGNAL LEVEL	9	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40577	576	SENSOR SERIAL CODE	10	Sensor serial code MSW	RO	UNSIGNED 32
40578	577			Sensor serial code LSW	RO	
40579	578	SENSOR SIGNAL LEVEL	10	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40580	579	SENSOR SERIAL CODE	11	Sensor serial code MSW	RO	UNSIGNED 32
40581	580			Sensor serial code LSW	RO	
40582	581	SENSOR SIGNAL LEVEL	11	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40583	582	SENSOR SERIAL CODE	12	Sensor serial code MSW	RO	UNSIGNED 32

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40584	583			Sensor serial code LSW	RO	
40585	584	SENSOR SIGNAL LEVEL	12	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40586	585	SENSOR SERIAL CODE	13	Sensor serial code MSW	RO	UNSIGNED 32
40587	586			Sensor serial code LSW	RO	
40588	587	SENSOR SIGNAL LEVEL	13	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40589	588	SENSOR SERIAL CODE	14	Sensor serial code MSW	RO	UNSIGNED 32
40590	589			Sensor serial code LSW	RO	
40591	590	SENSOR SIGNAL LEVEL	14	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40592	591	SENSOR SERIAL CODE	15	Sensor serial code MSW	RO	UNSIGNED 32
40593	592			Sensor serial code LSW	RO	
40594	593	SENSOR SIGNAL LEVEL	15	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40595	594	SENSOR SERIAL CODE	16	Sensor serial code MSW	RO	UNSIGNED 32
40596	595			Sensor serial code LSW	RO	
40597	596	SENSOR SIGNAL LEVEL	16	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40598	597	SENSOR SERIAL CODE	17	Sensor serial code MSW	RO	UNSIGNED 32
40599	598			Sensor serial code LSW	RO	
40600	599	SENSOR SIGNAL LEVEL	17	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40601	600	SENSOR SERIAL CODE	18	Sensor serial code MSW	RO	UNSIGNED 32
40602	601			Sensor serial code LSW	RO	
40603	602	SENSOR SIGNAL LEVEL	18	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40604	603	SENSOR SERIAL CODE	19	Sensor serial code MSW	RO	UNSIGNED 32
40605	604			Sensor serial code LSW	RO	
40606	605	SENSOR SIGNAL LEVEL	19	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40607	606	SENSOR SERIAL CODE	20	Sensor serial code MSW	RO	UNSIGNED 32
40608	607			Sensor serial code LSW	RO	
40609	608	SENSOR SIGNAL LEVEL	20	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40610	609	SENSOR SERIAL CODE	21	Sensor serial code MSW	RO	UNSIGNED 32
40611	610			Sensor serial code LSW	RO	
40612	611	SENSOR SIGNAL LEVEL	21	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40613	612	SENSOR SERIAL CODE	22	Sensor serial code MSW	RO	UNSIGNED 32
40614	613			Sensor serial code LSW	RO	
40615	614	SENSOR SIGNAL LEVEL	22	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40616	615	SENSOR SERIAL CODE	23	Sensor serial code MSW	RO	UNSIGNED 32
40617	616			Sensor serial code LSW	RO	

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40618	617	SENSOR SIGNAL LEVEL	23	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40619	618	SENSOR SERIAL CODE	24	Sensor serial code MSW	RO	UNSIGNED 32
40620	619			Sensor serial code LSW	RO	
40621	620	SENSOR SIGNAL LEVEL	24	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40622	621	SENSOR SERIAL CODE	25	Sensor serial code MSW	RO	UNSIGNED 32
40623	622			Sensor serial code LSW	RO	
40624	623	SENSOR SIGNAL LEVEL	25	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40625	624	SENSOR SERIAL CODE	26	Sensor serial code MSW	RO	UNSIGNED 32
40626	625			Sensor serial code LSW	RO	
40627	626	SENSOR SIGNAL LEVEL	26	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40628	627	SENSOR SERIAL CODE	27	Sensor serial code MSW	RO	UNSIGNED 32
40629	628			Sensor serial code LSW	RO	
40630	629	SENSOR SIGNAL LEVEL	27	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40631	630	SENSOR SERIAL CODE	28	Sensor serial code MSW	RO	UNSIGNED 32
40632	631			Sensor serial code LSW	RO	
40633	632	SENSOR SIGNAL LEVEL	28	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40634	633	SENSOR SERIAL CODE	29	Sensor serial code MSW	RO	UNSIGNED 32

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40635	634			Sensor serial code LSW	RO	
40636	635	SENSOR SIGNAL LEVEL	29	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40637	636	SENSOR SERIAL CODE	30	Sensor serial code MSW	RO	UNSIGNED 32
40638	637			Sensor serial code LSW	RO	
40639	638	SENSOR SIGNAL LEVEL	30	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40640	639	SENSOR SERIAL CODE	31	Sensor serial code MSW	RO	UNSIGNED 32
40641	640			Sensor serial code LSW	RO	
40642	641	SENSOR SIGNAL LEVEL	31	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40643	642	SENSOR SERIAL CODE	32	Sensor serial code MSW	RO	UNSIGNED 32
40644	643			Sensor serial code LSW	RO	
40645	644	SENSOR SIGNAL LEVEL	32	Signal level 0 = minimum 6 = maximum	RO	UNSIGNED 16 BIT
40704	703	SENSOR STATUS FLAG	1	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40711	710	SENSOR STATUS FLAG	2	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40718	717	SENSOR STATUS FLAG	3	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
				Bit 3 = Event Enable Bit 4 = Battery Low		
40725	724	SENSOR STATUS FLAG	4	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40732	731	SENSOR STATUS FLAG	5	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40739	738	SENSOR STATUS FLAG	6	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40746	745	SENSOR STATUS FLAG	7	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40753	752	SENSOR STATUS FLAG	8	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40760	759	SENSOR STATUS FLAG	9	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40767	766	SENSOR STATUS FLAG	10	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40774	773	SENSOR STATUS FLAG	11	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40781	780	SENSOR STATUS FLAG	12	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40788	787	SENSOR STATUS FLAG	13	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40795	794	SENSOR STATUS FLAG	14	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40802	801	SENSOR STATUS FLAG	15	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40809	808	SENSOR STATUS FLAG	16	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40816	815	SENSOR STATUS FLAG	17	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40823	822	SENSOR STATUS FLAG	18	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
				Bit 3 = Event Enable Bit 4 = Battery Low		
40830	829	SENSOR STATUS FLAG	19	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40837	836	SENSOR STATUS FLAG	20	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40844	843	SENSOR STATUS FLAG	21	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40851	850	SENSOR STATUS FLAG	22	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40858	857	SENSOR STATUS FLAG	23	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40865	864	SENSOR STATUS FLAG	24	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40872	871	SENSOR STATUS FLAG	25	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
40879	878	SENSOR STATUS FLAG	26	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40886	885	SENSOR STATUS FLAG	27	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40893	892	SENSOR STATUS FLAG	28	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40900	899	SENSOR STATUS FLAG	29	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40907	906	SENSOR STATUS FLAG	30	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40914	913	SENSOR STATUS FLAG	31	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
40921	920	SENSOR STATUS FLAG	32	Status of the digital inputs Bit 1 = Reserved Bit 2 = Reserved Bit 3 = Event Enable Bit 4 = Battery Low	RO	UNSIGNED 16 BIT
41001	1000	TIMEOUT SENSOR [16…1]	[16..1]	Sensor diagnostics: 0 = sensor OK 1 = sensor Timeout	RO	UNSIGNED 16 BIT
41002	1001	TIMEOUT SENSOR [32…17]	[32..17]		RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
41003	1002	COUNTER / ANALOG	1	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41004	1003	TEMPERATURE [°Cx10]	1	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41005	1004	HUMIDITY [%x10]	1	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41006	1005	DIGITAL INPUTS	1	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41007	1006	COUNTER / ANALOG	2	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41008	1007	TEMPERATURE [°Cx10]	2	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41009	1008	HUMIDITY [%x10]	2	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41010	1009	DIGITAL INPUTS	2	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41011	1010	COUNTER / ANALOG	3	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41012	1011	TEMPERATURE [°Cx10]	3	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41013	1012	HUMIDITY [%x10]	3	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41014	1013	DIGITAL INPUTS	3	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
				Bit 3 = IN2 Bit 4 = IN3		
41015	1014	COUNTER / ANALOG	4	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41016	1015	TEMPERATURE [°Cx10]	4	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41017	1016	HUMIDITY [%x10]	4	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41018	1017	DIGITAL INPUTS	4	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41019	1018	COUNTER / ANALOG	5	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41020	1019	TEMPERATURE [°Cx10]	5	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41021	1020	HUMIDITY [%x10]	5	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41022	1021	DIGITAL INPUTS	5	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41023	1022	COUNTER / ANALOG	6	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41024	1023	TEMPERATURE [°Cx10]	6	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41025	1024	HUMIDITY [%x10]	6	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
41026	1025	DIGITAL INPUTS	6	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41027	1026	COUNTER / ANALOG	7	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41028	1027	TEMPERATURE [°Cx10]	7	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41029	1028	HUMIDITY [%x10]	7	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41030	1029	DIGITAL INPUTS	7	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41031	1030	COUNTER / ANALOG	8	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41032	1031	TEMPERATURE [°Cx10]	8	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41033	1032	HUMIDITY [%x10]	8	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41034	1033	DIGITAL INPUTS	8	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41035	1034	COUNTER / ANALOG	9	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41036	1035	TEMPERATURE [°Cx10]	9	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
41037	1036	HUMIDITY [%x10]	9	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41038	1037	DIGITAL INPUTS	9	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41039	1038	COUNTER / ANALOG	10	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41040	1039	TEMPERATURE [°Cx10]	10	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41041	1040	HUMIDITY [%x10]	10	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41042	1041	DIGITAL INPUTS	10	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41043	1042	COUNTER / ANALOG	11	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41044	1043	TEMPERATURE [°Cx10]	11	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41045	1044	HUMIDITY [%x10]	11	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41046	1045	DIGITAL INPUTS	11	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41047	1046	COUNTER / ANALOG	12	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41048	1047	TEMPERATURE [°Cx10]	12	Temperature measurement in	RO	SIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
				[°Cx10] Example 200 = 20.0°C		
41049	1048	HUMIDITY [%x10]	12	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41050	1049	DIGITAL INPUTS	12	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41051	1050	COUNTER / ANALOG	13	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41052	1051	TEMPERATURE [°Cx10]	13	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41053	1052	HUMIDITY [%x10]	13	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41054	1053	DIGITAL INPUTS	13	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41055	1054	COUNTER / ANALOG	14	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41056	1055	TEMPERATURE [°Cx10]	14	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41057	1056	HUMIDITY [%x10]	14	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41058	1057	DIGITAL INPUTS	14	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41059	1058	COUNTER / ANALOG	15	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
41060	1059	TEMPERATURE [°Cx10]	15	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41061	1060	HUMIDITY [%x10]	15	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41062	1061	DIGITAL INPUTS	15	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41063	1062	COUNTER / ANALOG	16	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41064	1063	TEMPERATURE [°Cx10]	16	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41065	1064	HUMIDITY [%x10]	16	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41066	1065	DIGITAL INPUTS	16	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41067	1066	COUNTER / ANALOG	17	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41068	1067	TEMPERATURE [°Cx10]	17	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41069	1068	HUMIDITY [%x10]	17	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41070	1069	DIGITAL INPUTS	17	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
41071	1070	COUNTER / ANALOG	18	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41072	1071	TEMPERATURE [°Cx10]	18	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41073	1072	HUMIDITY [%x10]	18	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41074	1073	DIGITAL INPUTS	18	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41075	1074	COUNTER / ANALOG	19	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41076	1075	TEMPERATURE [°Cx10]	19	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41077	1076	HUMIDITY [%x10]	19	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41078	1077	DIGITAL INPUTS	19	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41079	1078	COUNTER / ANALOG	20	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41080	1079	TEMPERATURE [°Cx10]	20	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41081	1080	HUMIDITY [%x10]	20	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41082	1081	DIGITAL INPUTS	20	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
				Bit 3 = IN2 Bit 4 = IN3		
41083	1082	COUNTER / ANALOG	21	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41084	1083	TEMPERATURE [°Cx10]	21	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41085	1084	HUMIDITY [%x10]	21	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41086	1085	DIGITAL INPUTS	21	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41087	1086	COUNTER / ANALOG	22	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41088	1087	TEMPERATURE [°Cx10]	22	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41089	1088	HUMIDITY [%x10]	22	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41090	1089	DIGITAL INPUTS	22	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41091	1090	COUNTER / ANALOG	23	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41092	1091	TEMPERATURE [°Cx10]	23	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41093	1092	HUMIDITY [%x10]	23	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
41094	1093	DIGITAL INPUTS	23	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41095	1094	COUNTER / ANALOG	24	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41096	1095	TEMPERATURE [°Cx10]	24	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41097	1096	HUMIDITY [%x10]	24	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41098	1097	DIGITAL INPUTS	24	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41099	1098	COUNTER / ANALOG	25	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41100	1099	TEMPERATURE [°Cx10]	25	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41101	1100	HUMIDITY [%x10]	25	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41102	1101	DIGITAL INPUTS	25	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41103	1102	COUNTER / ANALOG	26	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41104	1103	TEMPERATURE [°Cx10]	26	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
41105	1104	HUMIDITY [%x10]	26	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41106	1105	DIGITAL INPUTS	26	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41107	1106	COUNTER / ANALOG	27	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41108	1107	TEMPERATURE [°Cx10]	27	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41109	1108	HUMIDITY [%x10]	27	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41110	1109	DIGITAL INPUTS	27	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41111	1110	COUNTER / ANALOG	28	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41112	1111	TEMPERATURE [°Cx10]	28	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41113	1112	HUMIDITY [%x10]	28	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41114	1113	DIGITAL INPUTS	28	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41115	1114	COUNTER / ANALOG	29	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41116	1115	TEMPERATURE [°Cx10]	29	Temperature measurement in	RO	SIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
				[°Cx10] Example 200 = 20.0°C		
41117	1116	HUMIDITY [%x10]	29	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41118	1117	DIGITAL INPUTS	29	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41119	1118	COUNTER / ANALOG	30	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41120	1119	TEMPERATURE [°Cx10]	30	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41121	1120	HUMIDITY [%x10]	30	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41122	1121	DIGITAL INPUTS	30	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41123	1122	COUNTER / ANALOG	31	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT
41124	1123	TEMPERATURE [°Cx10]	31	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41125	1124	HUMIDITY [%x10]	31	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41126	1125	DIGITAL INPUTS	31	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT
41127	1126	COUNTER / ANALOG	32	Current counter value / analogue input [mV]	RO	UNSIGNED 16 BIT

ADDRESS (4x)	OFFSET ADDRESS (4x)	REGISTER	SENSOR	DESCRIPTION	W/R	TYPE
41128	1127	TEMPERATURE [°Cx10]	32	Temperature measurement in [°Cx10] Example 200 = 20.0°C	RO	SIGNED 16 BIT
41129	1128	HUMIDITY [%x10]	32	Relative humidity measurement in [%x10] Example 500 = 50.0%	RO	UNSIGNED 16 BIT
41130	1129	DIGITAL INPUTS	32	Status of the digital inputs Bit 1 = IN0 Bit 2 = IN1 Bit 3 = IN2 Bit 4 = IN3	RO	UNSIGNED 16 BIT

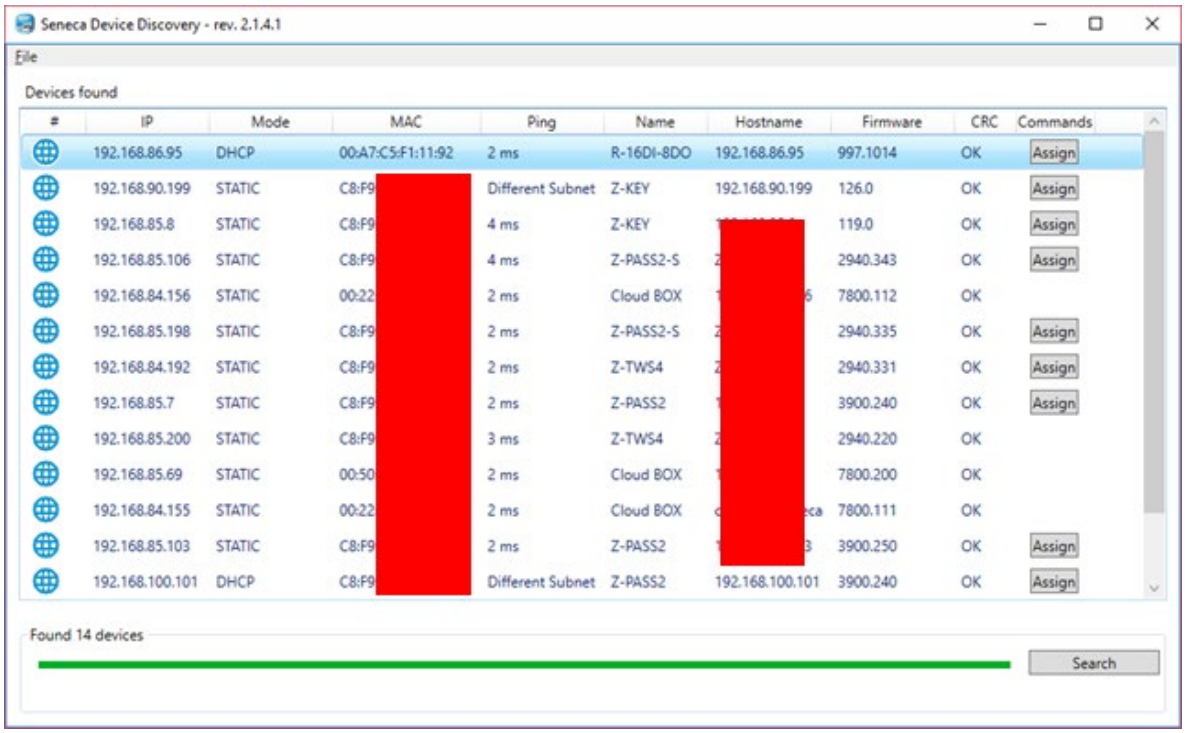
9. SEARCH AND MODIFICATION OF THE DEVICE IP WITH SENECA DISCOVERY DEVICE

When the STS LED is steady on in the R series device, it is possible to obtain the IP address that has been set.

The software can be downloaded from:

https://www.seneca.it/en/linee-di-prodotto/software/easy/sdd

Pressing the "search" button starts the search for all Seneca devices present in the network even if with IP addresses not compatible with the current PC configuration:



It is now possible to change the address by pressing the "Assign" button: