

**Interface Description  
for  
SRC65 BACnet MS/TP RS485**

**Version G, 24.06.2026**

## 1 Amendmet Index

| Version | Date       | Description                                                                          |
|---------|------------|--------------------------------------------------------------------------------------|
| A       | 09.09.2009 | 1. Release                                                                           |
| B       | 26.02.2010 | Added example for learn-in procedure                                                 |
| C       | 27.04.2010 | Added EnOcean profile/type code for SR65 LI and SR65 DI                              |
| D       | 21.07.2010 | SR04T Profile corrected                                                              |
| E       | 25.01.2013 | Profile EEP 07-09-04 (SR04 CO2) implemented<br>(SRC65 BACnet Firmware 1.4 or higher) |
| G       | 24.06.2026 | Information on alternative BACnet browsers added                                     |

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## 2 Introduction

The present document describes the functions of the wireless receiver SRC65 BACnet MS/TP-RS485. The device supports the representation of up to 32 EasySens sensors in the BACnet network.

Further information and definitions on the topic BACnet can be obtained under [www.bacnet.org](http://www.bacnet.org).

## 3 Description of the Device

### 3.1 Device Description

Devices can be connected by a twisted-pair cable (120  $\Omega$  line resistance). The maximum number of bus users (without use of a bus repeater) is defined by the RS485 transceiver. The protocol used is the international standard BACnet MS/TP. This enables connection to appropriate remote terminals such as an automation station or a building services management system supporting the BACnet MS/TP protocol.

### 3.2 RS485 Transceiver

The maximum number of bus users (without use of a repeater) is defined by the RS485 transceiver. The transceiver used allows 128 devices per bus segment at maximum.

### 3.3 Protocol

The standard defines the transmission parameters as 8N1, i.e. 8 data bits, no parity, 1 stop bit. The baud rate is freely selectable (9600, 19200, 38400, 57600, 76800, 115200), and is set by DIP switches. It is also possible to set the BACnet MAC address (bus address) of the device. A different bus address is needed for each device.

### 3.4 Configuration Tools

BACnet MS/TP wireless receivers are always operated together with other BACnet automation stations or building services management systems such as BACnet operating workstations. All parameter settings are possible through the BACnet network. Tools from the particular manufacturer of an automation station or building services management system are used to start up a BACnet network.

### 3.5 Configuration Options

By means of a 8-pole DIP switch an address between 1 and 127 can be set (DIP switch 1-7).

A turned-over switch 8 has no influence on the addresses, but leads to a blinking of the Rx-LED. The 4-pole DIP switch is designed for the setting of the baud rate. The binary-coded numbers correspond to the following baud rates:

- |   |        |
|---|--------|
| 1 | 9600   |
| 2 | 19200  |
| 3 | 38400  |
| 4 | 57600  |
| 5 | 76800  |
| 6 | 115200 |

After the adjustment of one of both DIP switches, a reset of the gateway is made. First, the LEDs RADIO and RX/TX are lighting up for 3 seconds. Thens, the device is initialized again.

Furthermore, the bus terminating resistor of 120 ohm can be connected via a jumper.

For a detailed description of the position and meaning of the jumper, please refer to the data sheet „,produktblatt\_src65\_bacnet.pdf“.

**!! The bus address must be differently adjusted for each device!!**

### 3.6 LEDs

Four LEDs are used for displaying the status information:

- |        |                                                                                                                                                                                                                                                                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ERROR: | The red Error-LED shows the status of the BUS communication. A constant lighting shows, that no valid communication is recognized at the BUS. A blinking LED shows, that a valid communication is recognized but that the device is not integrated in the token circulation. If the communication is valid and the participation in the token circulation is active, the LED is off. |
| RADIO: | The yellow RADIO-LED is blinking upon every receipt of a valid radio telegram.                                                                                                                                                                                                                                                                                                       |
| RX/TX: | The yellow RX/TX-LED is blinking for 500ms, if the device is addressed directly.                                                                                                                                                                                                                                                                                                     |
| UV:    | The UV-LED is designed for the display of operation. In the standard operation, the LED is blinking in a 1s-cycluss.                                                                                                                                                                                                                                                                 |

### BACnet Device Profile and BIBBs

The device is operating with the device profile BACnet Application Specific Controller (B-ASC).

The following BIBBs are implemented:

|           |                                   |
|-----------|-----------------------------------|
| DS-RP-B   | Read property                     |
| DS-WP-B   | Write property                    |
| DS-COVU-B | Send data on change of value      |
| DS-WPM-B  | Write multiple properties         |
| DM-DDB-B  | Device properties                 |
| DM-DOB-B  | Address information about objects |
| DM-DCC-B  | Communication control             |

### 3.7 BACnet Objects

The gateway has various BACnet objects. Four of these objects serve for the basic settings of the device. The others describe the channels, each interpreting a wireless receiver. A channel is described by 12 objects (six analogue inputs, four binary inputs, one binary value, one multistate input).

#### 3.7.1 Description of Objects for Basic Device Settings

| Objekt_Name          | Objekt Type / Instance                                   | Meaning                                                                                                                                                                     |
|----------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Thermokon_SRC_BACnet | Device / 100 (default) + MAC address of address switches | Basic settings of the device, e.g. MAX master.                                                                                                                              |
| Offset device ID     | Analogue value 1                                         | This value plus the set MAC (0-127) corresponds to the device ID (writeable 0-4194200) after write, reset and new initialize.                                               |
| EnOcean teach-in     | Analogue value 2                                         | The set value selects the next channel to be taught-in, after which it is automatically reset to 0.                                                                         |
| COV mode             | Multistate value 1                                       | This setting is for COV mode. The following modes are supported: <ul style="list-style-type: none"><li>- Off</li><li>- Local broadcast</li><li>- Global broadcast</li></ul> |

Table 3.7.1 Description of Objects for basic device setting

### 3.7.2 Description of the pro Channel including Objects in non taught-in status

The instance numbers of a channel are always starting at even hundred numbers, e.g. Channel 1 at 100, Channel 2 at 200 up to Channel 32 at 3200

| Object Name           | Object Type / Instance | Meaning                                                                         |
|-----------------------|------------------------|---------------------------------------------------------------------------------|
| Sensor01_DataByte_0   | Analogue input 100     | Interpreted data of EnOcean data byte 0 with analogue information.              |
| Sensor01_DataByte_1   | Analogue input 101     | Interpreted data of EnOcean data byte 1 with analogue information.              |
| Sensor01_DataByte_2   | Analogue input 102     | Interpreted data of EnOcean data byte 2 with analogue information.              |
| Sensor01_DataByte_3   | Analogue input 103     | Interpreted data of EnOcean data byte 3 with analogue information.              |
| Sensor01_Org_Byte     | Analogue input 110     | Mapping of EnOcean ORG byte.                                                    |
| Sensor01_Receive_Time | Analogue input 111     | Time since last received wireless telegram, COV time for "Sensor Overdue".      |
| Sensor01_Bi1          | Binary input 100       | Interpreted data of EnOcean data byte with digital information.                 |
| Sensor01_Bi2          | Binary input 101       | Interpreted data of EnOcean data byte with digital information.                 |
| Sensor01_Bi3          | Binary input 102       | Interpreted data of EnOcean data byte with digital information.                 |
| Sensor01_Bi4          | Binary input 103       | Interpreted data of EnOcean data byte with digital information.                 |
| Sensor01_ClearSlot    | Binary value 100       | The present value must be set to 1 to clear the sensor taught into the channel. |
| Sensor01_Mi0          | Multistate input 100   | Interpreted data of EnOcean data byte with multiple states/information.         |

Table 3.7.2 Descriptions of the objects per channel

## 3.7.3 Description of further BACnet-Features

### 3.7.3.1 *Device object -> MAX-Master property*

This property can be written between 0 and 127 and defines up to which address further users are polled on the bus. It is an MS/TP-specific property.

### 3.7.3.2 *Device object-> Object identifier*

Each device in a BACnet network requires a unique device ID. The device offers two ways of altering the ID. The device ID is composed of the MAC address, produced by the address DIP switch, and a device ID offset, written by a BACnet object. The default as supplied for this object is 100. Device identifiers from 0 through 4194299 can be set by altering the device address or offset, after which the device is newly started and initialized.

### 3.7.3.3 *Device object-> Device name, description*

These two properties are writeable, with a maximum text length of 128 characters. The object name property must also be unique within a BACnet network.

### 3.7.3.4 *SensorXX\_ORG\_Byte object*

Additionally to the ORG byte of the teach-in sensor (in the present value), it shows its EnOcean ID and the EnOcean profile as well as the transmitter type. The ID, profile and type are contained in the appropriate property description.

EnOcean-ID - Profile – Type

**Example:** Sensor 01 teach-in as SR65Li

Object „Sensor01\_Org\_Byte->Description“:ORG\_Byte\_0013D18E-06-01

EnOcean-ID : 0x0013D18E

Profile + Type: 06-01 corresponds to FUNC 06 with Type 01 according to the profile description *EnOcean Equipment Profiles (EEP) V2.0* of July 2009

## **3.8 Function Description**

### **3.8.1 Learning-in of a Wireless Sensor**

To teach-in a wireless sensor, the number of the required channel must be entered in the present value property of the EnOcean teach-in object. The next transmitter to send a teach-in telegram is teach-in. After the teaching-in the present value is reset to 0. The teaching-in is only possible to an unassigned channel.

### **3.8.2 Delete a Channel**

Each channel is allocated to a ClearSlot object. If the present value is set to 1, the previously stored information is rejected and a new wireless sensor can be teach-in into the channel.

### **3.8.3 Receiving Time**

Each channel is allocated to a Sensorxx\_Receive\_Time object that detects the time since the last received radio telegram of the teach-in transmitter. The time shown in the present value is incremented by the second and reset to 0 when a telegram is received.

The value in the COV increment property writes the transmit cycle of a COV message for this object. A telegram is generated if the time has elapsed and the sensor is overdue. As supplied the COV increment is 65535, which prevents sending COV messages. Times from 30 to 65535 seconds can be set.

### **3.8.4 COV-Treating**

The functionality can be selected with the multistate value object. Writing the present value property (1-3) selects the COV mode. When COV is active, the data byte objects of a channel that are used (four) are transmitted after a wireless telegram is received. When the time in the Receive\_Time object has elapsed, this object is also transmitted as a COV.

## 4 Transmitters

The following chapter provides an overview of the profiles realized in the receiver as well as its representation in the BACnet network.

Notice: xx shows the corresponding channel in which the transmitter is teached-in.

### 4.1 RPS-Telegram (Profile Light Switch)

#### 4.1.1 Easyfit-,Easysens-2-channel button, EEP: 05-02-01

| Instance | Object Type  | Object Name             | Function                                                                 | Present-Value                            | Default-Value |
|----------|--------------|-------------------------|--------------------------------------------------------------------------|------------------------------------------|---------------|
| xx10     | ANALOG_INPUT | Sensorxx_ORG_Byte       | Display of EnOcean-ID + Profile + Type in the feature <i>Description</i> | ORG-Byte                                 | 0             |
| xx02     | BINARY_INPUT | Sensorxx_Bi2-I-button-B | I-Button B                                                               | Inactive – Not pushed<br>Active - pushed | Inactive      |
| xx03     | BINARY_INPUT | Sensorxx_Bi2-O-button-B | O-Button B                                                               | Inactive – Not pushed<br>Active - Pushed | Inactive      |

**Table 4.1.1: Object description 2-channel button**

#### 4.1.2 Easyfit-, Easysens-4-channel button, EEP: 05-03-01

| Instance | Object Type  | Object Name             | Function                                                                 | Present-Value                            | Default-Value |
|----------|--------------|-------------------------|--------------------------------------------------------------------------|------------------------------------------|---------------|
| xx10     | ANALOG_INPUT | Sensorxx_ORG_Byte       | Display of EnOcean-ID + Profile + Type in the feature <i>Description</i> | 0                                        | 0             |
| xx00     | BINARY_INPUT | Sensorxx_Bi0-I-button-A | I-Button A                                                               | Inactive - Not pushed<br>Active - Pushed | Inactive      |
| xx01     | BINARY_INPUT | Sensorxx_Bi1-O-button-A | O-Button A                                                               | Inactive – Not pushed<br>Active - Pushed | Inactive      |
| xx02     | BINARY_INPUT | Sensorxx_Bi2-I-button-B | I-Button B                                                               | Inactive - Not pushed<br>Active -pushed  | Inactive      |
| xx03     | BINARY_INPUT | Sensorxx_Bi3-O-button-B | O-Button B                                                               | Inactive – Not pushed<br>Active - pushed | Inactive      |

**Tabele 1.1.2: Object description 4-channel button**

#### 4.1.3 Window Handle SRG01, EEP: 05-10-00

| Instance | Object Type  | Object Name             | Function                                                                        | Present-Value                                  | Default-Value |
|----------|--------------|-------------------------|---------------------------------------------------------------------------------|------------------------------------------------|---------------|
| xx10     | ANALOG_INPUT | Sensorxx_ORG_Byte       | Description of EnOcean-ID + Profile + Type in the feature<br><i>Description</i> | 0                                              | -             |
| xx02     | BINARY_INPUT | Sensorxx_Bi1-O-button-A | Handle up                                                                       | Inactive - Handle NOT up<br>Active - Handle up | Inactive      |
| xx03     | BINARY_INPUT | Sensorxx_Bi2-I-button-B | Handle down                                                                     | Inactive - Handle NOT up<br>Active - Handle up | Inactive      |

**Tabelle 4.1.3: Object description window handle SRG01**

## 4.2 1BS Telegram

### 4.2.1 Window Contact SRW01, EEP: 06-00-01

| Instance | Object Type  | Object Name                 | Function                                                                       | Present-Value                                                                                 | Default-Value |
|----------|--------------|-----------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------|
| xx10     | ANALOG_INPUT | Sensorxx_OR<br>G_Byte       | Display of EnOcean-ID +<br>Profile + Type in the<br>feature <i>Description</i> | 0                                                                                             | -             |
| xx00     | BINARY_INPUT | Sensorxx_Bi0-<br>I-button-A | Monitoring of window<br>contact                                                | Inactive – Contact<br>opened (window<br>opened)<br>Active – Contact<br>closed (window closed) | Inactive      |
| xx11     | ANALOG_INPUT | Sensorxx<br>Receive_Time    | EnOcean monitoring                                                             | Time since last<br>received EnOcean<br>telegram                                               | 0             |

**Table 4.2.1: Object description window contact SRW01**

### 4.3 4BS Telegram

#### 4.3.1 SR04, EEP: 07-02-05

| Instance | Object Type  | Object Name                         | Function                                                                       | Present-Value                                       | Default-Value | Unit              |
|----------|--------------|-------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_Temperature | Temperature                                                                    | Current<br>measuring value                          | 20°C          | Degree<br>Celsius |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte               | Display<br>Enocean-ID +<br>Profile + Type in the<br>feature <i>Description</i> | -                                                   | 0             | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time           | Enocean monitoring                                                             | Time since last<br>received<br>Enocean-<br>telegram | 0             | Seconds           |

**Table 4.3.1: Object description SR04**

#### 4.3.2 SR65, EEP:07-02-12,-14,-17

The table is valid for the following devices:

SR65 -40°C...+40°C **EEP: 07-02-12**

SR65/SR65 TF -20°C...+60°C **EEP: 07-02-14**

SR65 AKF +10°C...+90°C **EEP: 07-02-17**

SR65 VFG +10°C...+90°C **EEP: 07-02-17**

The Present Value is represented in the measuring range of the corresponding profile:

| Instance | Object Type  | Object Name                             | Function                                                                           | Present-Value                                      | Default-Value | Unit              |
|----------|--------------|-----------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature | Temperature                                                                        | Current<br>measuring value                         | 20°C          | Degree<br>Celsius |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                   | Display of Enocean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                  | 0             | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time               | Enocean monitoring                                                                 | Time since last<br>received<br>Enocean<br>telegram | 0             | Seconds           |

**Table 4.3.9: Object description SR65**

#### 4.3.3 SR04rH, EEP: 07-04-01

| Instance | Object type  | Object                                                     | Function                                                                           | Present-Value                                         | Default-Value | Unit              |
|----------|--------------|------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature                    | Temperature                                                                        | Current<br>measuring value                            | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_Rel_<br>Humidity                   | Relative Humidity                                                                  | Current<br>measuring value<br>in the range 0-<br>100% | 50%           | %                 |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                                      | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                     | 0             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0<br>Availability_of_<br>Temperature_<br>Sensor | Message<br>„Temperature-sensor<br>available “ <sup>1</sup>                         | -                                                     | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>ReceiveTime                                   | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram    | 0             | Seconds           |

**Table 4.3.10: Object description SR04 rH**

<sup>1</sup>not implemented at the moment

#### 4.3.4 SR65 Li, EEP: 07-06-01

| Instance | Object type  | Object                                    | Function                                                                           | Present-Value                                      | Default-Value | Unit   |
|----------|--------------|-------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------|---------------|--------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Illumination  | Illumination range<br>600-60000Lux                                                 | Current<br>measuring value                         | 600Lux        | Lux    |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_<br>Illumination  | Illumination range<br>300-30000Lux                                                 | Current<br>measuring value                         | 300Lux        | Lux    |
| xx03     | ANALOG_INPUT | Sensorxx_Data<br>Byte_3_Supply<br>Voltage | Voltage                                                                            | Current<br>measuring value                         | 0V            | Volt   |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                     | Display of EnOcean-<br>ID + Profile + Tyep<br>in the feature<br><i>Description</i> | -                                                  | 0             | -      |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Range_<br>Selection      | Display of measuring<br>range selected at the<br>device <sup>1</sup>               | -                                                  | Inactive      | -      |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time                 | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram | 0             | Second |

**Table 4.3.17: Object description SR65-LI**

<sup>1</sup> not implemented at the moment

## 4.3.5 SR-MDS, EEP: 07-08-01

| Instance | Object type  | Object                                    | Function                                                                           | Present-Value                                      | Default-Value | Unit              |
|----------|--------------|-------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature   | Temperature                                                                        | Current<br>measuring value                         | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_<br>Illumination  | Illumination                                                                       | Current<br>measuring value<br>0-512Lux             | 200Lux        | Lux               |
| xx03     | ANALOG_INPUT | Sensorxx_Data<br>Byte_3_Supply<br>Voltage | Voltage                                                                            | Current<br>measuring value                         | 0V            | Volt              |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                     | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                  | -             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Occupancy<br>button      | Presence mode                                                                      | Inactive –<br>unoccupied<br>Active -<br>occupied   | Inactive      | -                 |
| xx01     | BINARY_INPUT | Sensorxx_Bi1_<br>PIR_Signal               | Motion sensor                                                                      | Inactive – no<br>motion<br>Active - motion         | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time                 | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram | 0             | Second            |

Table 4.3.16: Object description SR-MDS

#### 4.3.6 SR04 PSMS, EEP: 07-10-02

| Instance | Object type          | Object                                             | Function                                                                           | Present-Value                                                               | Default-Value | Unit              |
|----------|----------------------|----------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT         | Sensorxx_Data<br>Byte_1_<br>Temperature            | Temperature                                                                        | Current<br>measuring<br>value                                               | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT         | Sensorxx_Data<br>Byte_2_Set_<br>Point              | Set point                                                                          | Current<br>measuring value<br>in the range 0-<br>100%                       | 50%           | Percent           |
| xx10     | ANALOG_INPUT         | Sensorxx_ORG<br>_Byte                              | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                                           | 0             | -                 |
| xx00     | BINARY_INPUT         | Sensorxx_Bi0_<br>Slide_Switch                      | Slide switch                                                                       | Inactive –<br>Position left<br>Active -<br>Position right                   | Inactive      | -                 |
| xx00     | MULTISTATE_<br>INPUT | Sensorxx_Mi0_<br>Turn-<br>Switch_For_Fan<br>_speed | Fan Stages                                                                         | 1 – AUTO<br>2 –<br>OFF(STAGE0)<br>3 – STAGE 1<br>4 – STAGE 2<br>5 – STAGE 3 | OFF           | -                 |
| xx11     | ANALOG_INPUT         | Sensorxx_<br>Receive_Time                          | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram                          | 0             | Seconds           |

Table 4.3.8: Object description SR04 PSMS

#### 4.3.7 SR04 P, EEP: 07-10-03

| Instance | Object Type  | Object Name                             | Function                                                                           | Present-Value                                         | Default-Value | Unit              |
|----------|--------------|-----------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature | Temperature                                                                        | Current<br>measuring value                            | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_Set_<br>Point   | Set point                                                                          | Current<br>measuring value<br>in the range 0-<br>100% | 50%           | Percent           |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                   | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                     | 0             | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time               | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram    | 0             | Seconds           |

Table 4.3.2: Object description SR04 P

#### 4.3.8 SR04 PS, EEP: 07-10-04

| Instance | Object type           | Object                                             | Function                                                                          | Present-Value                                                                | Default-value | Unit              |
|----------|-----------------------|----------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT          | Sensorxx_Data<br>Byte_1_<br>Temperature            | Temperature                                                                       | Current<br>measuring value                                                   | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT          | Sensorxx_Data<br>Byte_2_Set_<br>Point              | Sollwert                                                                          | Current<br>measuring value<br>in the range<br>Messwert im<br>Bereich 0-100%  | 50%           | Percent           |
| xx10     | ANALOG_INPUT          | Sensorxx_ORG<br>_Byte                              | Display of EnOcean-<br>ID + Profile+ Type<br>in the feature<br><i>Description</i> | -                                                                            | 0             | -                 |
| xx00     | MULTISTATE_-<br>INPUT | Sensorxx_Mi0_<br>Turn-<br>Switch_For_Fan<br>_speed | Fan stages                                                                        | 1 – AUTO<br>2 – OFF<br>(STAGE0)<br>3 – STAGE 1<br>4 – STAGE 2<br>5 – STAGE 3 | OFF           | -                 |
| xx11     | ANALOG_INPUT          | Sensorxx_<br>Receive_Time                          | EnOcean monitoring                                                                | Time since last<br>receive<br>EnOcean-<br>telegram                           | 0             | Seconds           |

Table 4.3.5: Object description SR04 PS

#### 4.3.9 SR04 PT, EEP:07-10-05

| Instance | Object Type  | Object Name                             | Function                                                                           | Present-Value                                         | Default-value | Unit              |
|----------|--------------|-----------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature | Temperature                                                                        | Current<br>measuring value                            | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_Set_<br>Point   | Set point                                                                          | Current<br>measuring value<br>in the range 0-<br>100% | 50%           | Percent           |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                   | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                     | 0             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Push_Button            | Button                                                                             | Inactive – Not<br>pushed<br>Active - Pushed           | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time               | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean-<br>telegram   | 0             | Seconds           |

Table 4.3.4: Object description SR04 PT

#### 4.3.10 SR04 PMS, EEP: 07-10-06

| Instance | Object type  | Object                                  | Function                                                                              | Present-Value                                               | Default-Value | Default           |
|----------|--------------|-----------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature | Temperature                                                                           | Current<br>measuring value                                  | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_Set_<br>Point   | Set point                                                                             | Aktueller<br>Messwert im<br>Bereich 0-100%                  | 50%           | Prozent           |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                   | Display of EnOcean-<br>ID + Profile + Type<br>in the feature of<br><i>Description</i> | -                                                           | 0             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Slide_Switch           | Slide switch                                                                          | Inactive –<br>Stellung links<br>Active -<br>Stellung rechts | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time               | EnOcean monitoring                                                                    | Time since last<br>received<br>EnOcean<br>telegram          | 0             | Seconds           |

**Table 4.3.7: Object description SR04 PMS**

#### 4.3.11 EnOcean profile: Temperature Sensor and Single Input Contact, EEP: 07-10-0B,

| Instance | Object Type  | Object Name                  | Function                                                                           | Present-Value                                      | Default-Value | Unit              |
|----------|--------------|------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1      | Temperature                                                                        | Current<br>measuring value                         | 20°C          | Degree<br>Celsius |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte        | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                  | 0             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Push_Button | Button                                                                             | Inactive – Not<br>pushed<br>Active - Pushed        | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time    | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram | 0             | Seconds           |

**Table 4.3.3: Object description Temperature Sensor and Single Input Contact**

## 4.3.12 SR04 T, EEP: 07-10-0C

| Instance | Object Type  | Object Name                  | Function                                                                           | Present-Value                                      | Default-Value | Unit              |
|----------|--------------|------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte 1      | Temperature                                                                        | Current<br>measuring value                         | 20°C          | Degree<br>Celsius |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte        | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                  | 0             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Push_Button | Button                                                                             | Inactive – Not<br>pushed<br>Active - Pushed        | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time    | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram | 0             | Seconds           |

Table 4.3.3: Object description SR04 T

## 4.3.13 SR04 PT rH, EEP: 07-10-10

| Instance | Object type  | Object                                   | Function                                                                           | Present-Value                                         | Default-Value | Unit              |
|----------|--------------|------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte 1_<br>Temperature  | Temperature                                                                        | Current<br>measuring value                            | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte 2_Rel_<br>Humidity | Relative humidity                                                                  | Current<br>measuring value<br>in the range 0-<br>100% | 50%           | %                 |
| xx03     | ANALOG_INPUT | Sensorxx_Data<br>Byte 3_Set_<br>Point    | Set point                                                                          | Current<br>measuring value<br>in the range 0-<br>100% | 50%           | Percent           |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                    | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                     | 0             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Push_Button             | Button                                                                             | Inactive – Not<br>pushed<br>Active - Pushed           | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time                | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram    | 0             | Seconds           |

Table 2: Object description SR04 PT rH

**4.3.14 SR04 PMS rH, EEP: 07-10-11**

| Instance | Object type  | Object                                   | Function                                                                           | Present-Value                                             | Default-Value | Unit              |
|----------|--------------|------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature  | Temperature                                                                        | Current<br>measuring value                                | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_Rel_<br>Humidity | Relative humidity                                                                  | Current<br>measuring value<br>in the range 0-<br>100%     | 50%           | %                 |
| xx03     | ANALOG_INPUT | Sensorxx_Data<br>Byte_3_Set_<br>Point    | Set point                                                                          | Current<br>measuring value<br>in the range 0-<br>100%     | 50%           | Percent           |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                    | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                         | 0             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Slide_Switch            | Slide switch                                                                       | Inactive –<br>position left<br>Active -<br>position right | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time                | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram        | 0             | Second            |

**Table 4.3.14: Object description SR04 PMS rH****4.3.15 SR04 P rH, EEP: 07-10-12**

| Instance | Object type  | Object                                   | Function                                                                            | Present-Value                                         | Default-Value | Unit              |
|----------|--------------|------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature  | Temperature                                                                         | Current<br>measuring value                            | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_Rel_<br>Humidity | Relative humidity                                                                   | Current<br>measuring value<br>in the range 0-<br>100% | 50%           | %                 |
| xx03     | ANALOG_INPUT | Sensorxx_Data<br>Byte_3_Set_<br>Point    | Set point                                                                           | Current<br>measuring range<br>in the range 0-<br>100% | 50%           | Percent           |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                    | Display of EnOcean-<br>ID + Profile + Typ e<br>in the feature<br><i>Description</i> | -                                                     | -             | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>ReceiveTime                 | EnOcean monitoring                                                                  | Time since last<br>received<br>EnOcean<br>telegram    | 0             | Seconds           |

**Table 4.3.11: Object description SR04 P rH**

## 4.3.16 SR04 T rH, EEP: 07-10-13

| Instance | Object type  | Object                                   | Function                                                                           | Present-Value                                         | Default-value | Unit              |
|----------|--------------|------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature  | Temperature                                                                        | Current<br>measuring value                            | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_Rel_<br>Humidity | Relative Feuchte                                                                   | Current<br>measuring value<br>in the range 0-<br>100% | 50%           | %                 |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                    | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                     | -             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Push_Button             | Button                                                                             | Inactive - Not<br>pushed<br>Active - pushed           | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>ReceiveTime                 | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram    | 0             | Second            |

Table 4.3.12: Object description SR04 T rH

## 4.3.17 SR04 MS rH, EEP: 07-10-14

| Instance | Object type  | Object                                   | Function                                                                           | Present-Value                                             | Default-Value | Unit              |
|----------|--------------|------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------|-------------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data<br>Byte_1_<br>Temperature  | Temperature                                                                        | Current<br>measuring value                                | 20°C          | Degree<br>Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data<br>Byte_2_Rel_<br>Humidity | Relative humidity                                                                  | Current<br>measuring value<br>in the range 0-<br>100%     | 50%           | %                 |
| xx10     | ANALOG_INPUT | Sensorxx_ORG<br>_Byte                    | Display of EnOcean-<br>ID + Profile + Type<br>in the feature<br><i>Description</i> | -                                                         | 0             | -                 |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_<br>Slide_Switch            | Slide switch                                                                       | Inactive –<br>position left<br>Active -<br>position right | Inactive      | -                 |
| xx11     | ANALOG_INPUT | Sensorxx_<br>Receive_Time                | EnOcean monitoring                                                                 | Time since last<br>received<br>EnOcean<br>telegram        | 0             | Second            |

Table 4.3.15: Object description SR04 MS rH

#### 4.3.18 SR65 DI, EEP: 07-30-01

| Instance | Object type  | Object                       | Function                                                                 | Present-Value                                        | Default-Value | Unit    |
|----------|--------------|------------------------------|--------------------------------------------------------------------------|------------------------------------------------------|---------------|---------|
| xx10     | ANALOG_INPUT | Sensorxx_ORG_Byte            | Display of EnOcean-ID + Profile + Type in the feature <i>Description</i> | -                                                    | 0             | -       |
| xx00     | BINARY_INPUT | Sensorxx_Bi0_Contact         | Digital input                                                            | Inactive – contact opened<br>Active - contact closed | Inactive      | -       |
| xx01     | BINARY_INPUT | Sensorxx_Bi1_Battery_voltage | Battery voltages                                                         | Inactive – Batterie Low<br>Active - Batterie ok      | Inactive      | -       |
| xx11     | ANALOG_INPUT | Sensorxx_Receive_Time        | EnOcean monitoring                                                       | Time since last received EnOcean telegram            | 0             | Seconds |

**Table 4.3.18: Object description SR65 Di**

#### 4.3.19 SR04 CO2, EEP: 07-09-04

| Instance | Object type  | Object                              | Function                                                                 | Present-Value                                 | Default-Value | Unit           |
|----------|--------------|-------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------|---------------|----------------|
| xx01     | ANALOG_INPUT | Sensorxx_Data_Byte_1_Temperature    | Temperature                                                              | Current measuring value                       | 20°C          | Degree Celsius |
| xx02     | ANALOG_INPUT | Sensorxx_Data_Byte_2_CO2            | CO2                                                                      | Current measuring value                       | 500 ppm CO2   | ppm            |
| xx03     | ANALOG_INPUT | Sensorxx_Data_Byte_3_Rel_Humidity * | Relative humidity *                                                      | Current measuring value in the range 0-100% * | 50% *         | % *            |
| xx10     | ANALOG_INPUT | Sensorxx_ORG_Byte                   | Display of EnOcean-ID + Profile + Type in the feature <i>Description</i> | -                                             | 0             | -              |
| xx11     | ANALOG_INPUT | Sensorxx_Receive_Time               | EnOcean monitoring                                                       | Time since last received EnOcean telegram     | 0             | Seconds        |

\*) Only available on devices with an integrated rel. humidity sensor.

**Table 3: Object description SR04 PT rH**

#### 4.4 Non-interpreted Transmitter

The representation is only made in the analogue input objects. The values are transmitted as raw data without units, as received on the EnOcean side.

| Instance | Object type  | Object                | Function                                                                 | Present-Value                             | Default-Wert | Unit   |
|----------|--------------|-----------------------|--------------------------------------------------------------------------|-------------------------------------------|--------------|--------|
| xx00     | ANALOG_INPUT | Sensorxx_DataByte_0   | Raw data Data byte0                                                      | -                                         | -            | -      |
| xx01     | ANALOG_INPUT | Sensorxx_DataByte_1   | Raw data Data byte1                                                      | -                                         | -            | -      |
| xx02     | ANALOG_INPUT | Sensorxx_DataByte_2   | Raw data Data byte2                                                      | -                                         | -            | -      |
| xx03     | ANALOG_INPUT | Sensorxx_DataByte_3   | Raw data Data byte3                                                      | -                                         | -            | -      |
| xx10     | ANALOG_INPUT | Sensorxx_ORG_Byte     | Display of EnOcean-ID + Profiel + Type in the feature <i>Description</i> | -                                         | -            | -      |
| xx11     | ANALOG_INPUT | Sensorxx_Receive_Time | EnOcean monitoring                                                       | Time since last received EnOcean telegram | 0            | Second |

**Table 4.4.1: Object description: Non-interpreted transmitter**

Mantissas are not considered.

## 4.5 Annex

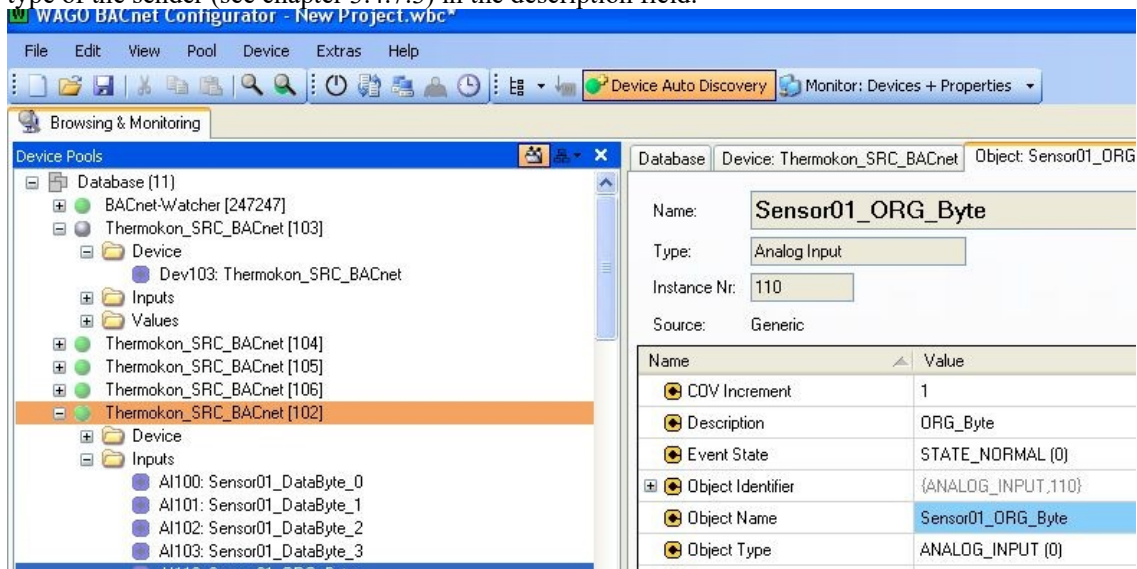
The following examples use screenshots from the WAGO BACnet Configurator, but can be applied in almost exactly the same way with any BACnet browser, such as YABE or BACeye.

### 4.5.1 Learn-in sequence

The example refers to channel 1 of the SRC65\_BACnet receiver. An EnOcean push button is learned in!

*Only for information:*

Check if the slot is clear. You can see it in the description field. Only the string “ORG\_BYTE” should appear. If a sender is already learned-in, you will see additional information like EnOcean-ID, profile and type of the sender (see chapter 3.4.7.3) in the description field.



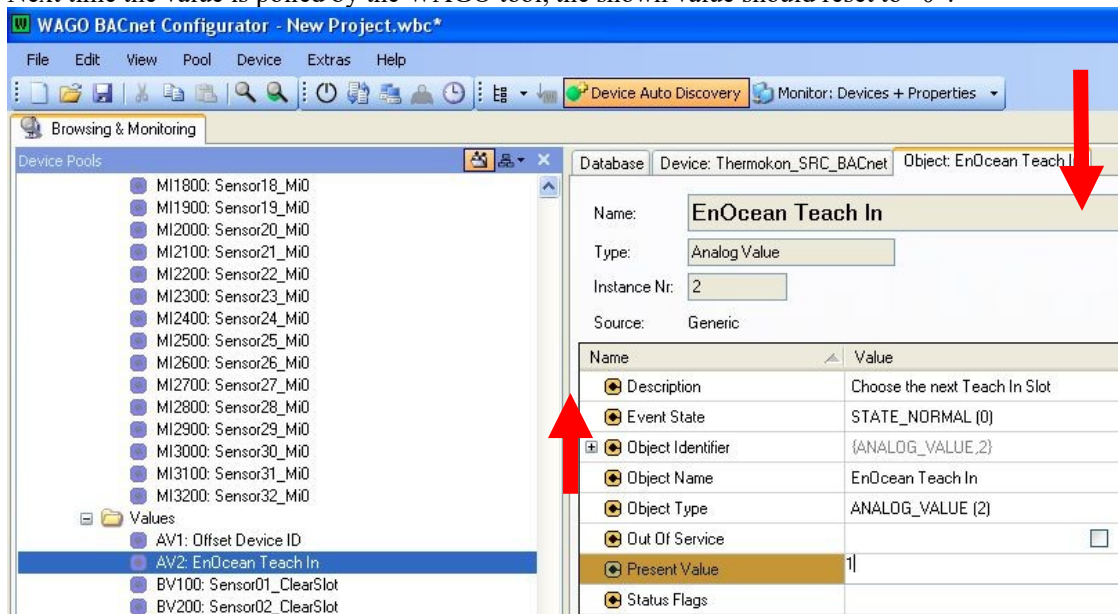
## Example1

### Learn-in procedure for a Easysens-wireless switch on channel 1

Goto AV2: EnOcean Teach-In

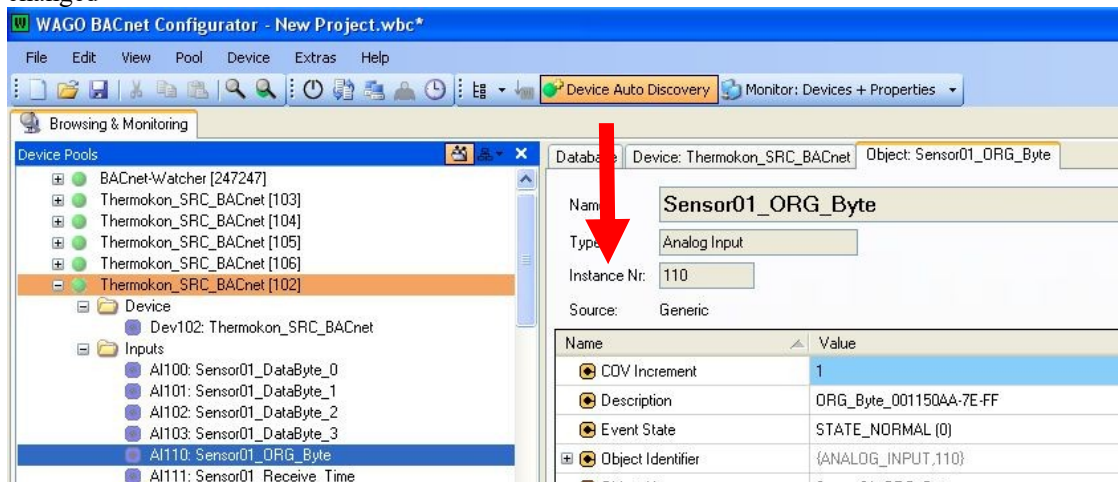
Enter value „1“ in field “Present Value”. Press button “Commit Values”. Now, the receiver on channel 1 is set in the learning mode and is waiting for a teach-in telegram of a transmitter. Now, push the EnOcean button. An EasySense wireless switch is transmitting a learning telegram with every button actuation. As for other transmitters such as the room operating panels an extra learning-in button is existing to activate a teach-in telegram. Please learn more in the corresponding data sheets of our products which shall be read, accordingly.

Next time the value is polled by the WAGO tool, the shown value should reset to “0”.



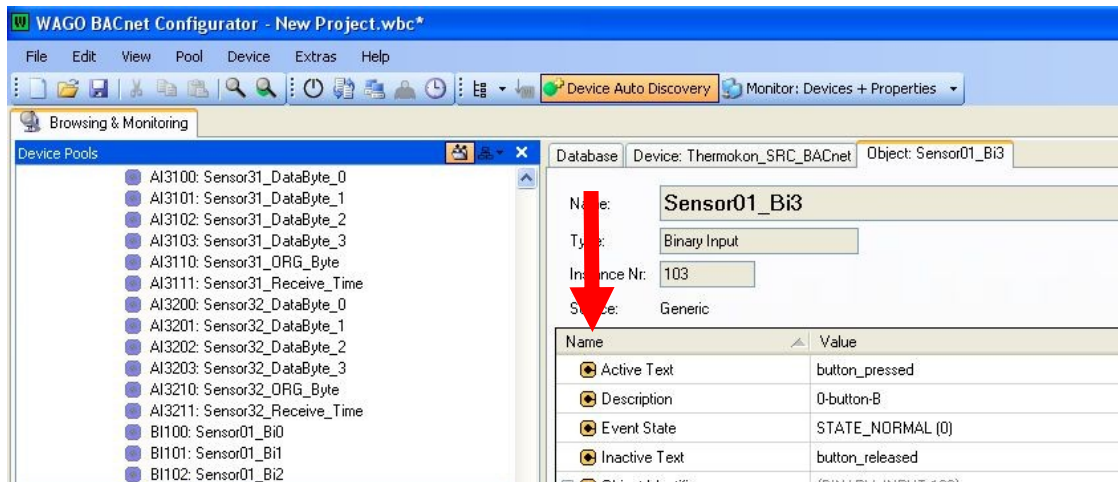
*Only for information:*

Go to the Sensor01\_ORG\_Byte property (AI110 for channel 1) and check if the description field has changed



Depending on the sensor teach-in, the object names of the objects used in the BACnet network are adapted according to the profile of the transmitters. As for the wireless EasySens switch, these are the object names of the binary inputs 0-3 (e.g. object name “Sensor01\_Bi3” has changed to “Sensor01\_Bi3-buttonB”). The object names of the corresponding EnOcean senders can be obtained in the corresponding tables (see section 4).

If you press a button, you can see that the corresponding Present Value will be set to ACTIVE. Remember: The WAGO BACnet configurator only polls the values. Thus, keep the button pressed until the value is polled.



## Example 2

### Clear channel 1

#### Step1

Every channel has a Binary Value Object to reset the channel (BV100, BV200,... BV3200).

Go to the corresponding object "Sensorxx\_ClearSlot". Enter "ACTIVE" to Present Value and push the Commit Values button. After the next poll cycle, the value should be reset to "INACTIVE".

