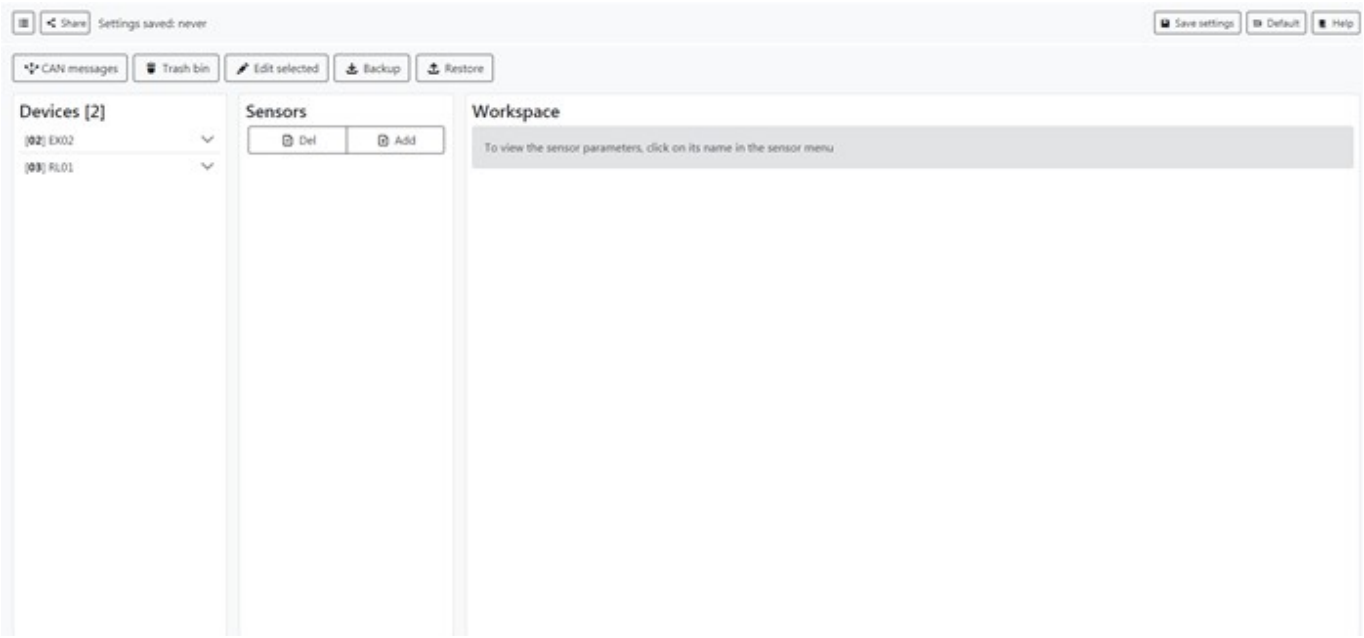
Sensors

Main page

Figure 1 – **main page** of chapter SENSORS



This chapter allows you to see which devices are connected to mNVR, check out CAN messages, add sensors or delete them, if there are a necessity you can restore them from trash bin

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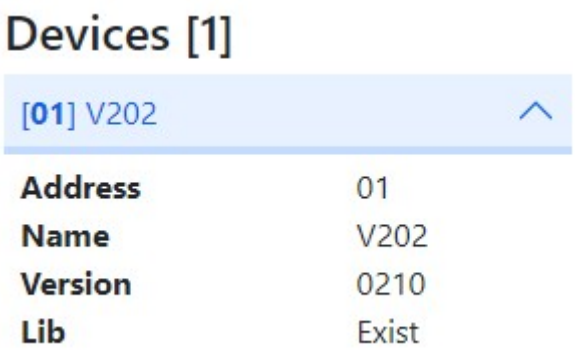
Devices

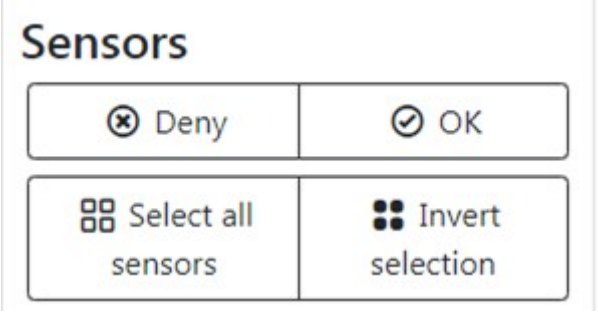
Figure 2 – menu **Devices**



In menu devices you can check information about devices that are connected to the NVR, their CONNCECT ID, name, version of firmware of devices, and see if there are presets to this device

Deleting sensors

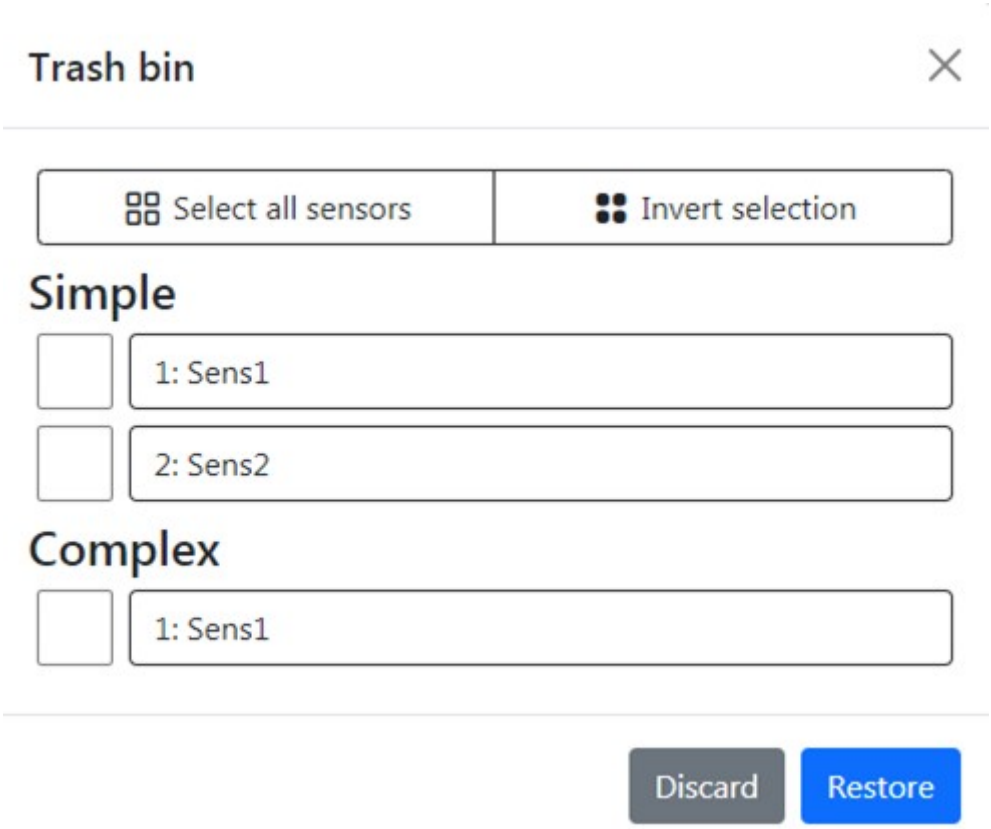
Figure 3 – menu **deleting sensors**



You can select a couple of them, or choose all, or invert selection and delete sensors which you want, deleted sensors will be moved to trash bin

Trash bin

Figure 4 – menu **trash bin**

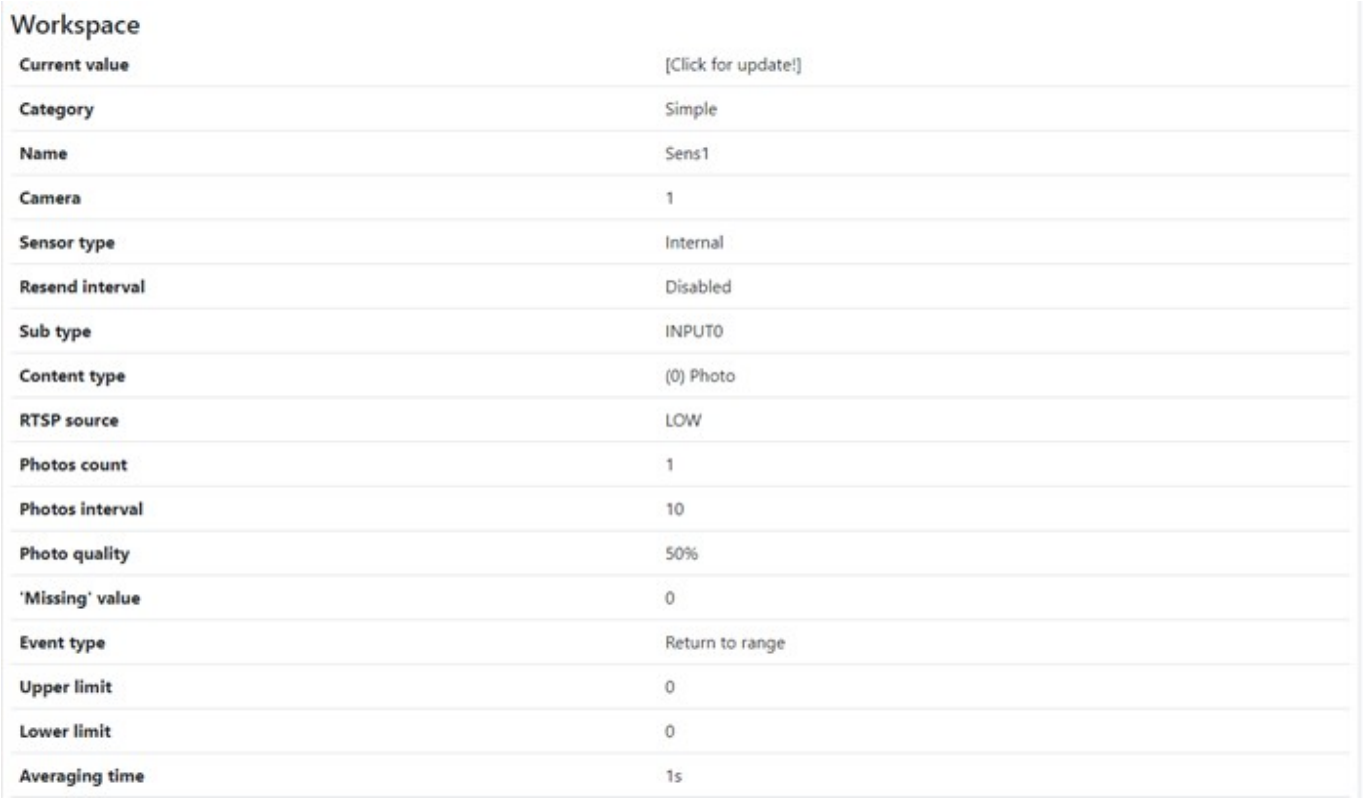


If you accidentally delete some of your sensors or want to restore old you can do it by **trash bin** menu, you need to select desired sensors and press **restore** button or **discard** if you change your

mind

Workspace

Figure 5 – Workspace



Workspace	
Current value	[Click for update!]
Category	Simple
Name	Sens1
Camera	1
Sensor type	Internal
Resend interval	Disabled
Sub type	INPUT0
Content type	(0) Photo
RTSP source	LOW
Photos count	1
Photos interval	10
Photo quality	50%
'Missing' value	0
Event type	Return to range
Upper limit	0
Lower limit	0
Averaging time	1s

There you can check information about your sensor, it current value, category, sensor type, type of content, etc. and if you want to change some parameters you can press Edit button and configure your sensor

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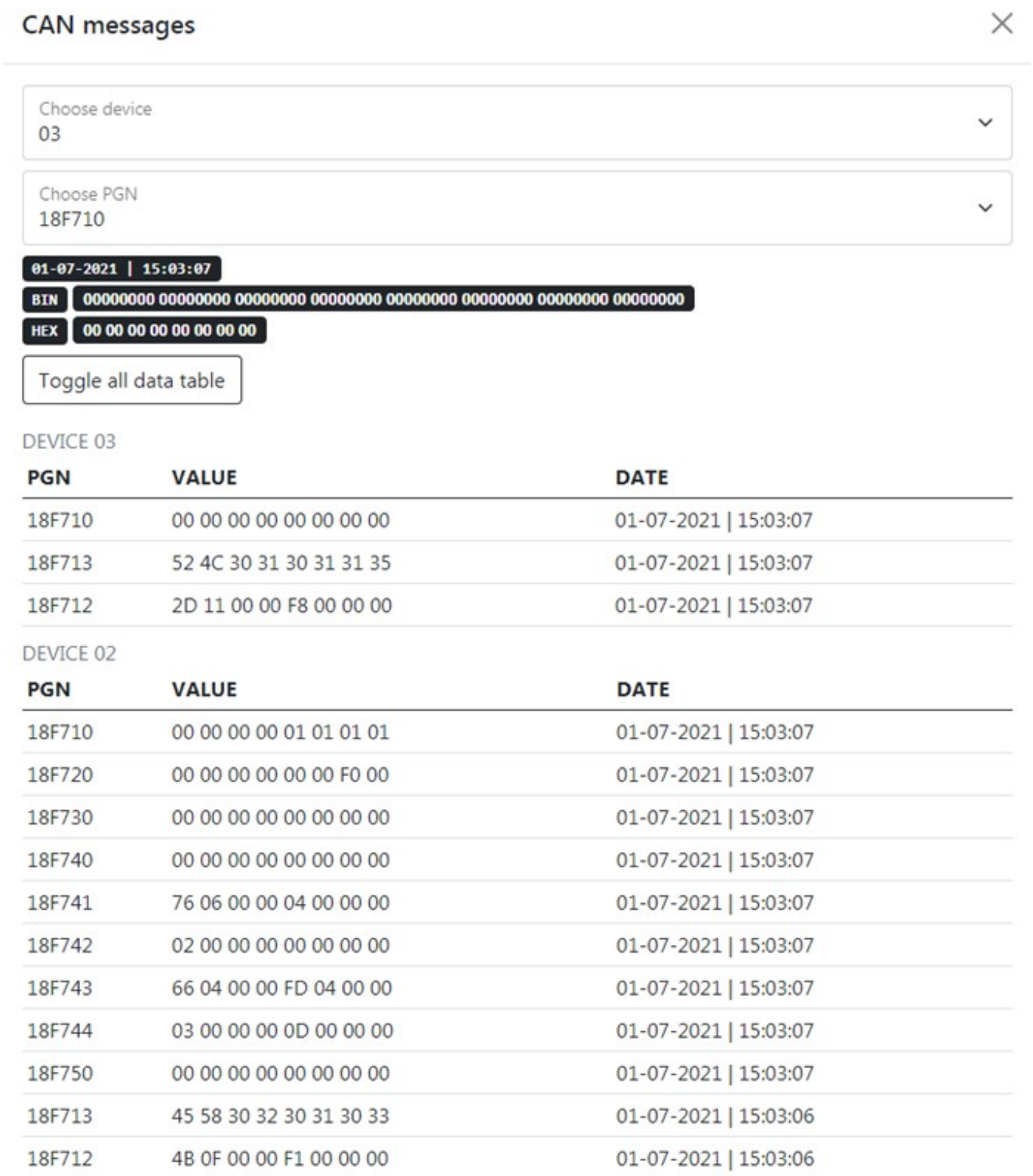
CAN message

Figure 6 – CAN message



You can check the state of your devices by pressing CAN messages button, there you can choose the device which you want to check by choosing his address on CONNECT ID, and PGN and see the value which devices will be send. Value will be send in HEX system, to convert in DEC system you need to highlight it and lower right corner will be converted value

Also, you can press **Toggle all data table** button for more information

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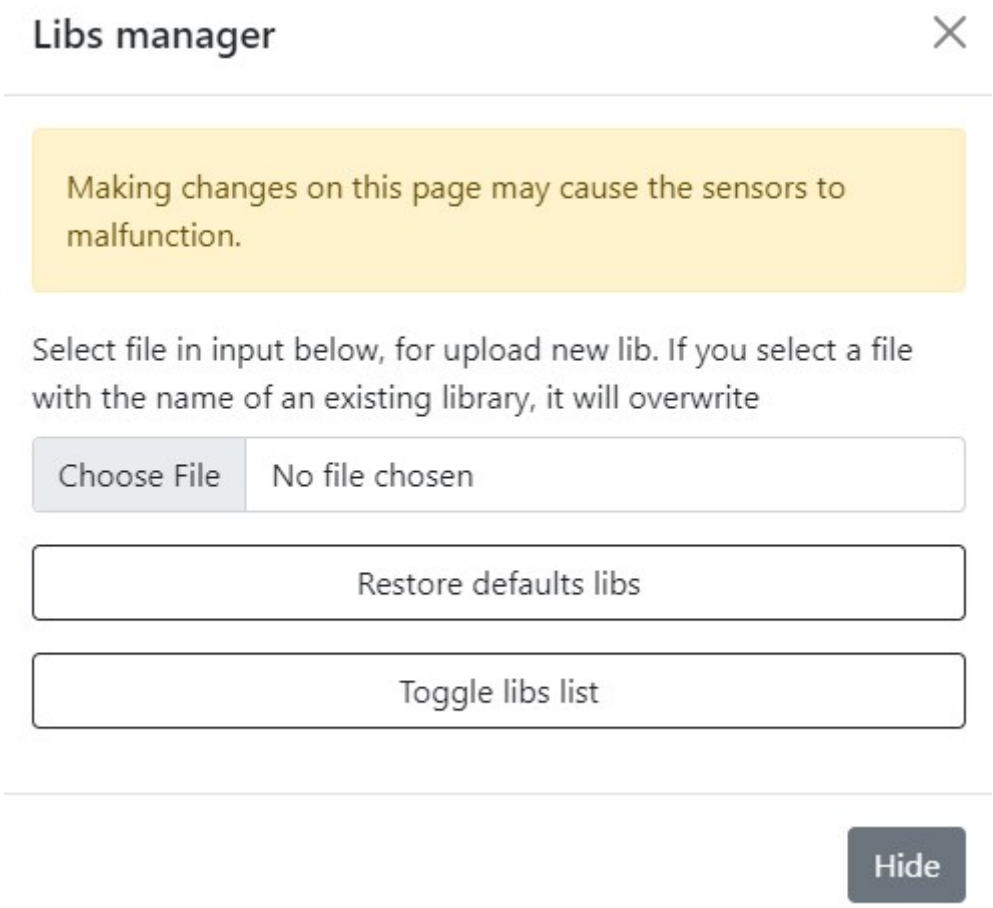
Libs manager

figure 7 – Libs manager



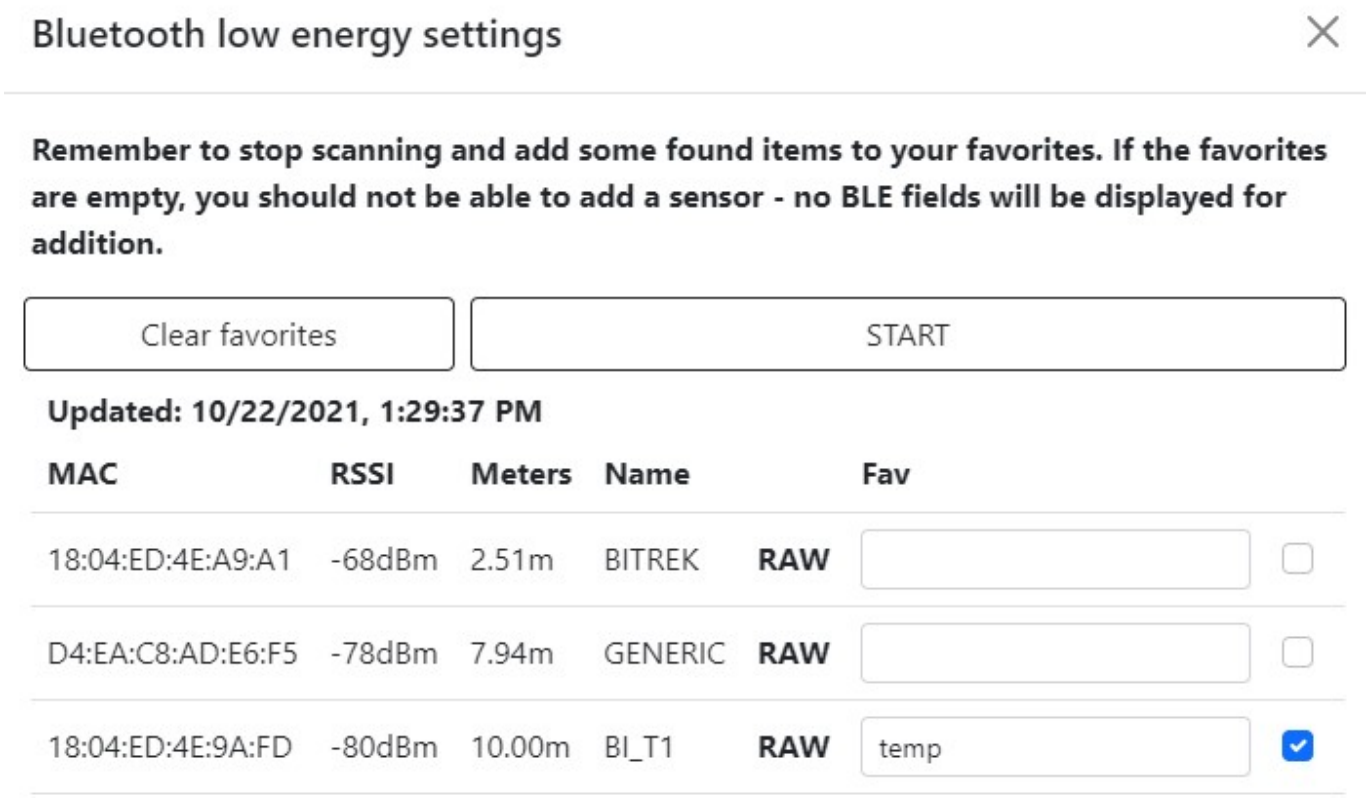
If you have a library, that you created manually, you can download it with the help of libs manager. To do that, you need to press **Choose file** button and download file of **.xml** format. To choose **one of preseted** libraries you need to press **Toggle libs list** button, to restore default libraries press **Restore default libs**

Bluetooth Low Energy (BLE) scanner adding

Figure 8 – BLE scanner

If you have BLE sensor you can connect it to mNVR. First you need to scan it by pressing **BLE scan** button and then press **Start** button, after that you can find the desired sensor in the list below, also in this list you can check the information such as: • MAC address • Signal quality level • Distance to the object (in meters) • Information about the signal • Time from the sensor detection After that in sensor menu is need to press **BLE settings** button and add your sensor to **favorite**, in this way you can add sensors from favorite in adding sensor menu

Figure 9 - BLE settings



Adding sensor

Рисунок 9 – add sensors menu

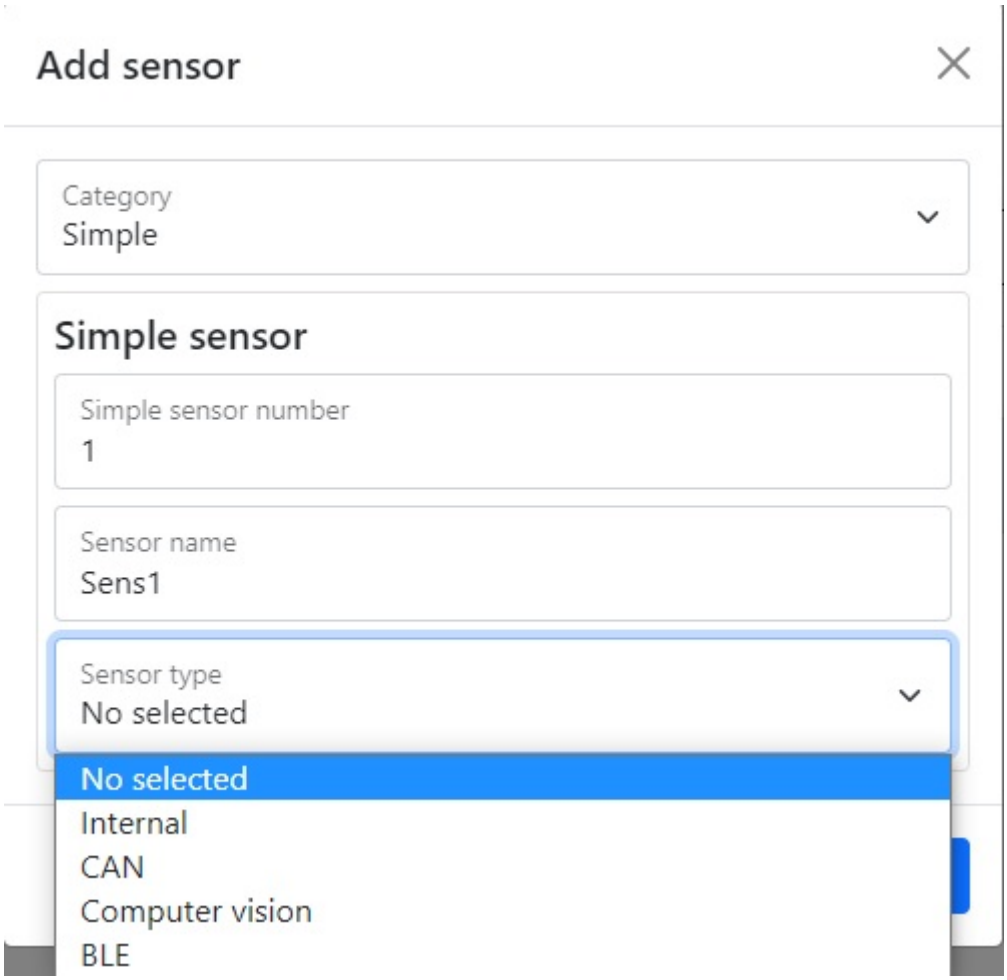


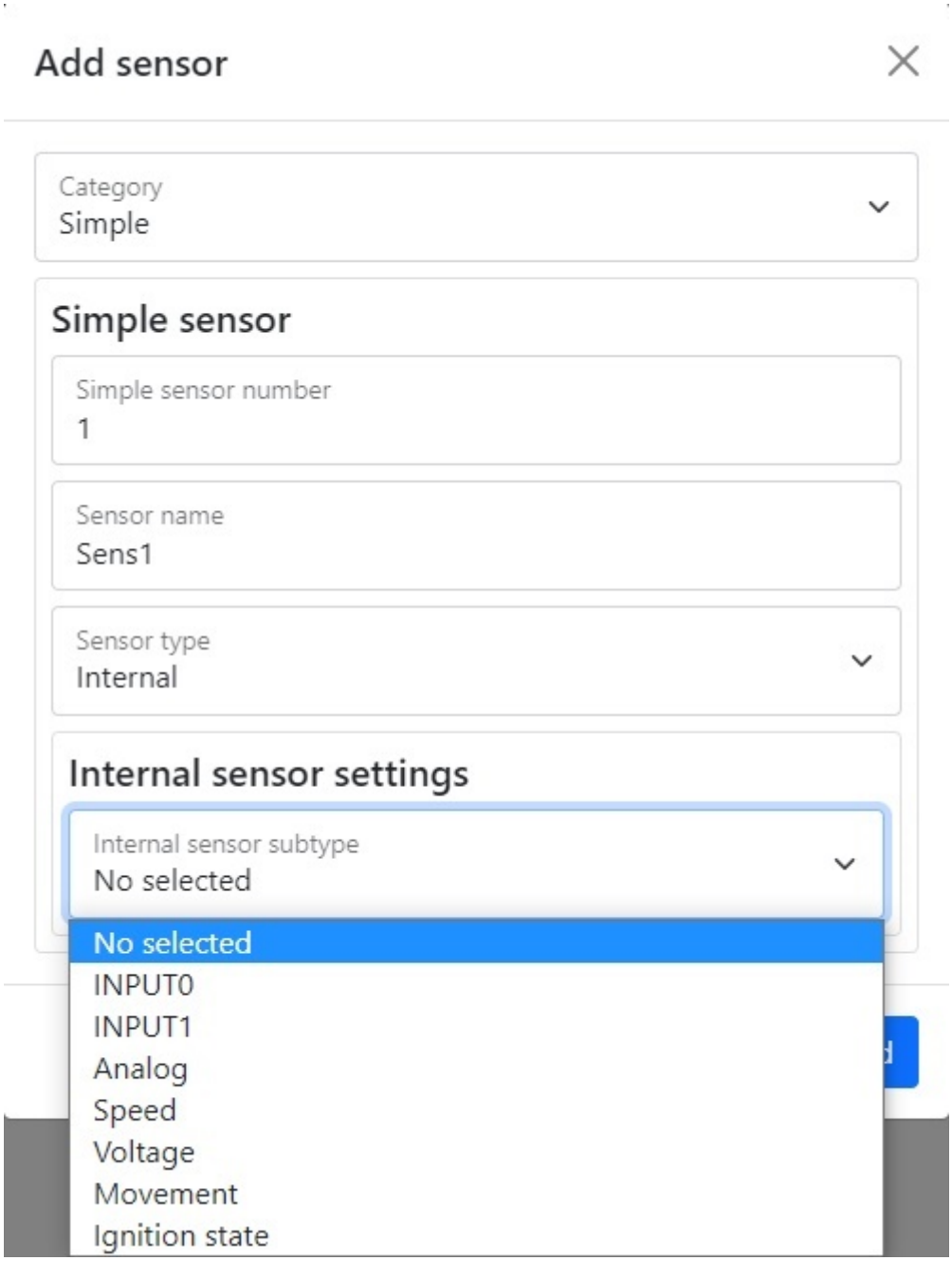
Table 1 - **adding new sensor** parameter description

Parameter	Parameter description
Category	Sensor class, simple or complex
Sensor number	Sensor number selection
Sensor type	Sensor type, Internal, CAN, BLE or Computer vision

Internal sensor type

The section contains the selection of the sensor subtype, camera number, photo count and its interval, RTSP source and reference to it, the maximum video time associated with the event, the number of photos and frames per second, video time, the interval between photos associated with the event, its count and quality content type, event type, upper and lower limit, average latency, and resubmission interval

Figure 10 – menu of internal sensor type


Add sensor
Category
Simple
Simple sensor
Simple sensor number
1
Sensor name
Sens1
Sensor type
Internal
Internal sensor settings
Internal sensor subtype
No selected
No selected
INPUT0
INPUT1
Analog
Speed
Voltage
Movement
Ignition state

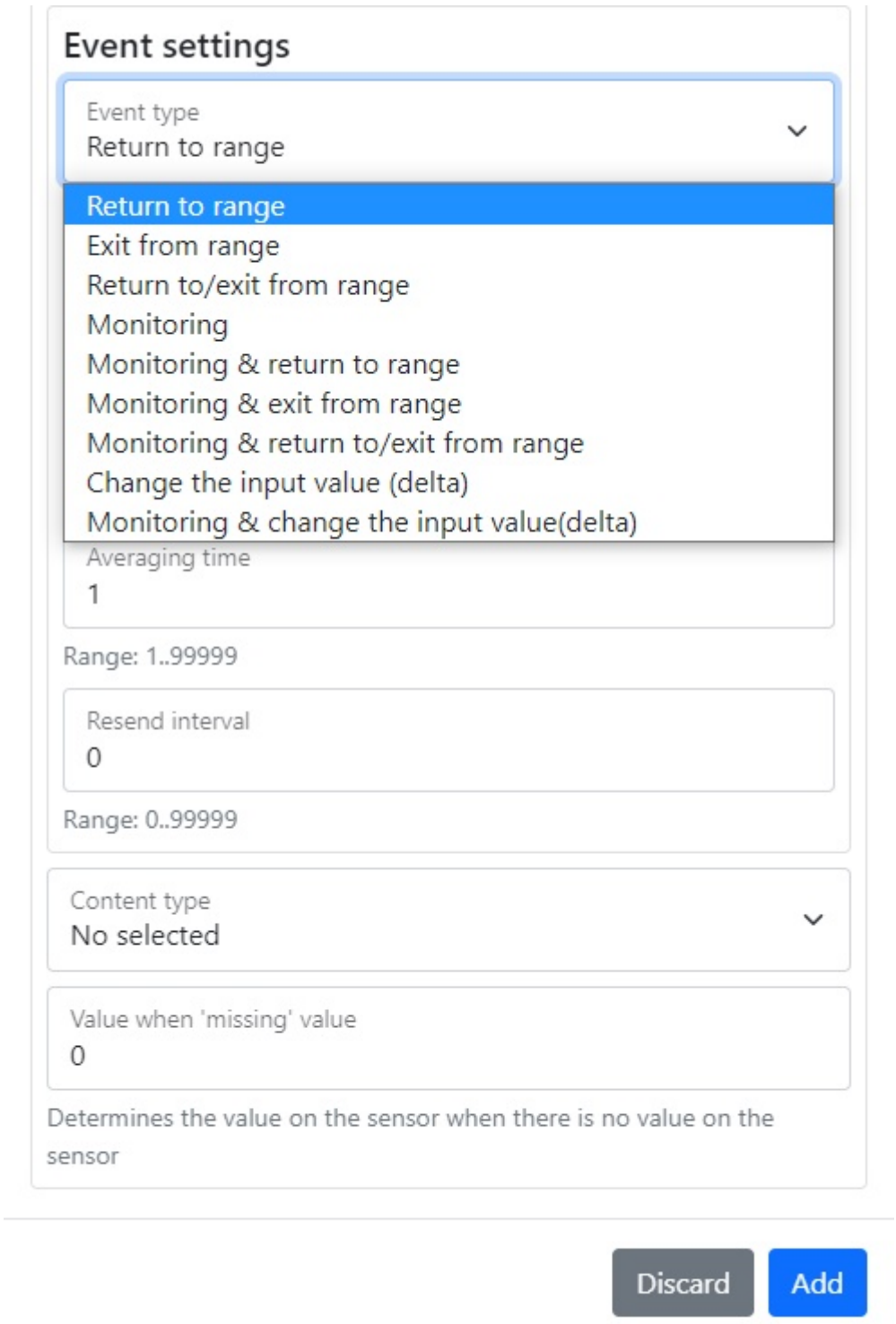


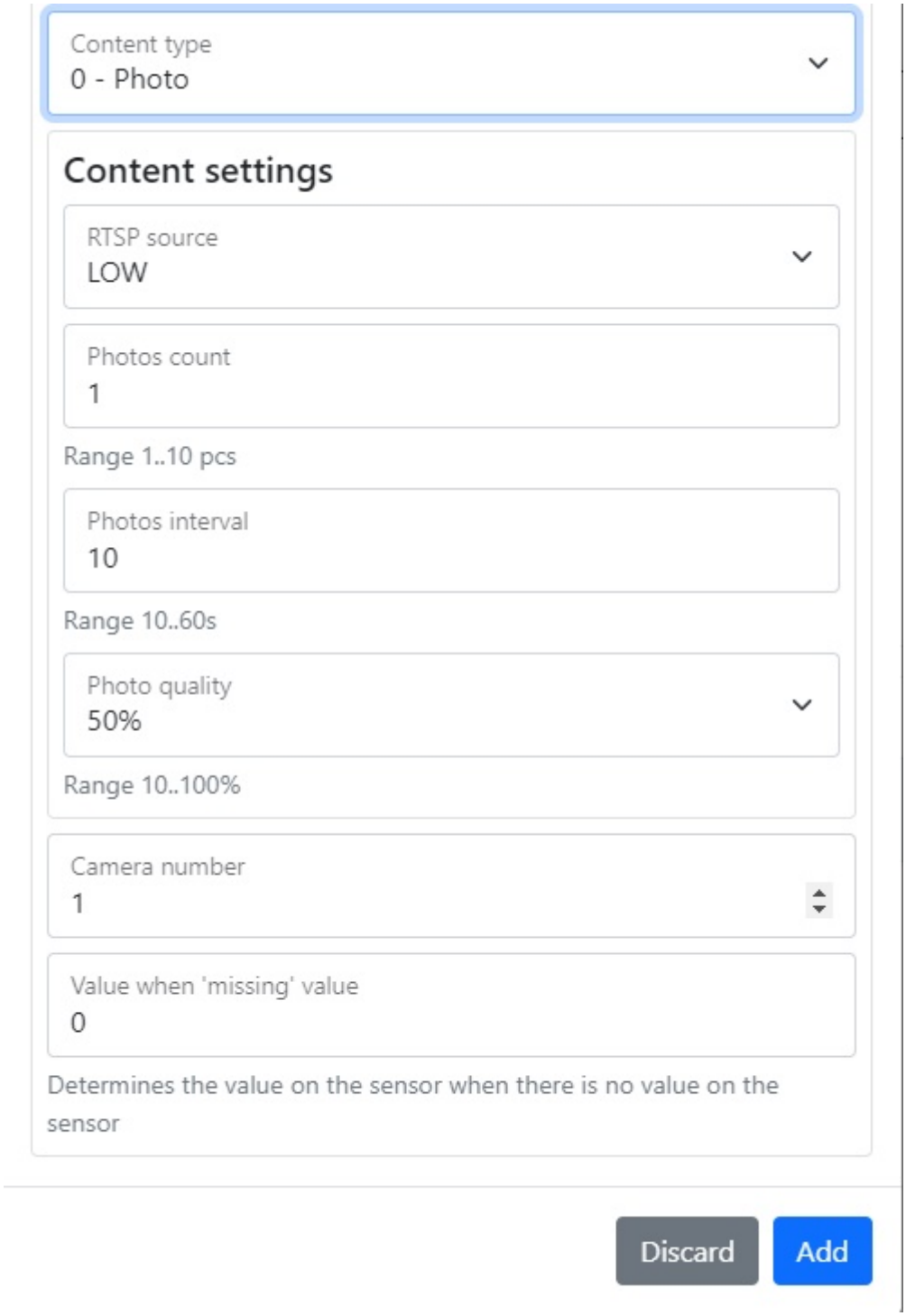
Table 2 – the description of parameters of the subtypes of the sensor internal:

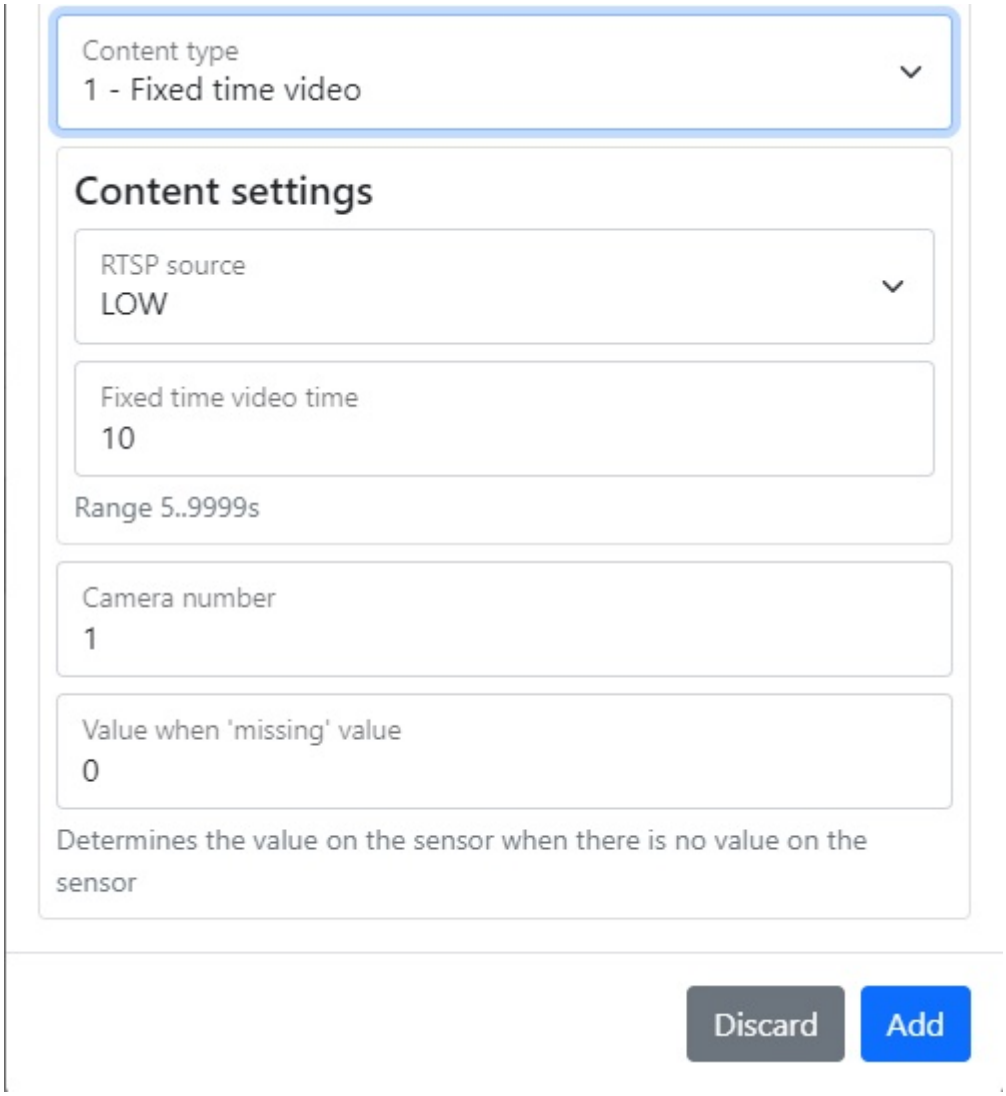
Parameter	**Parameter description**
INPUT 0	Digital input 0
INPUT 1	Digital input 1
ANALOG	Analog input 1
SPEED	Speed sensor
VOLTAGE	Voltage at the input of the device
MOVEMENT	The status of the motion sensor on the device
OVERCURRENT	Overcurrent sensor

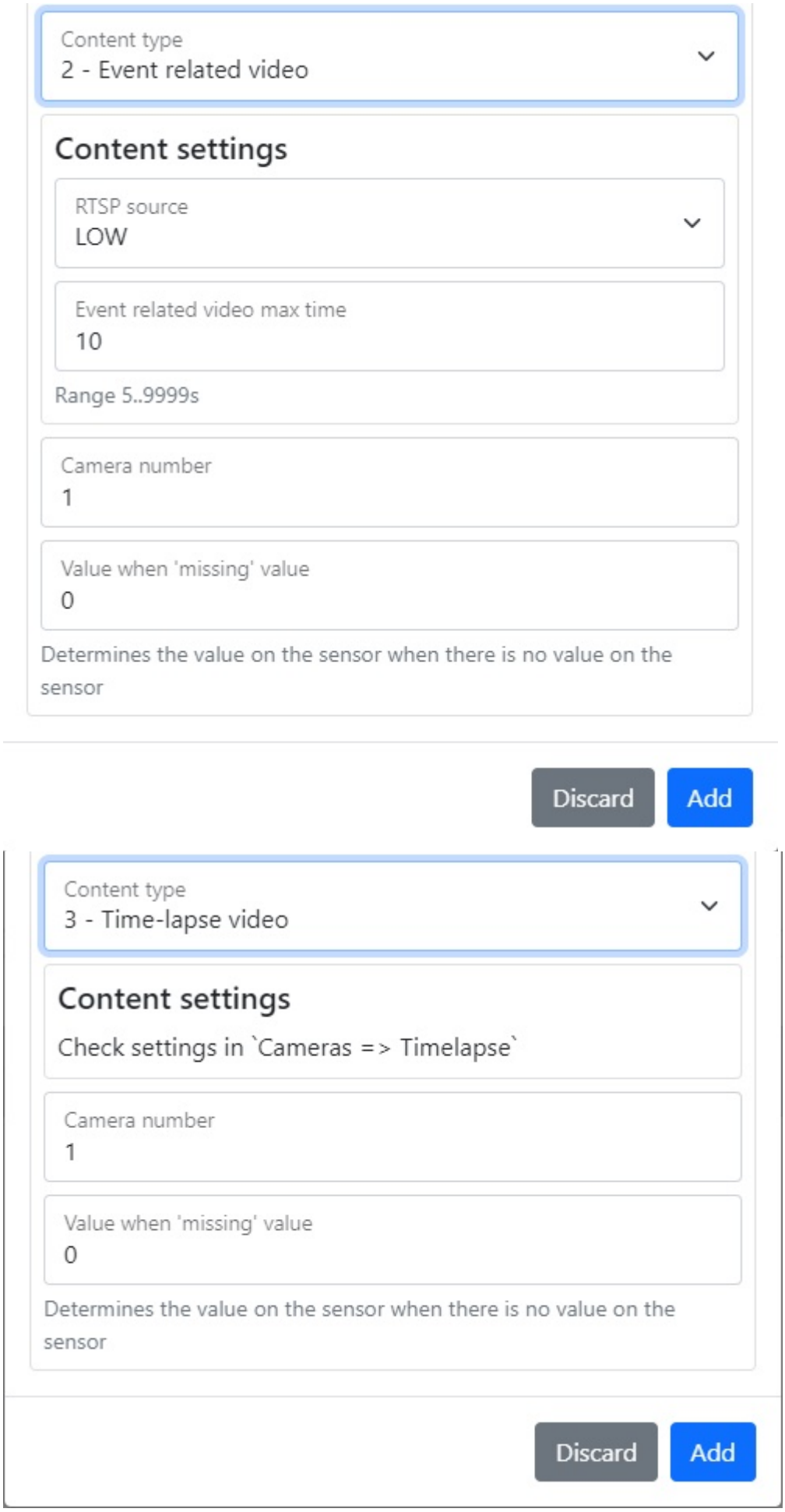
Table 3 - description of the menu parameters Content type

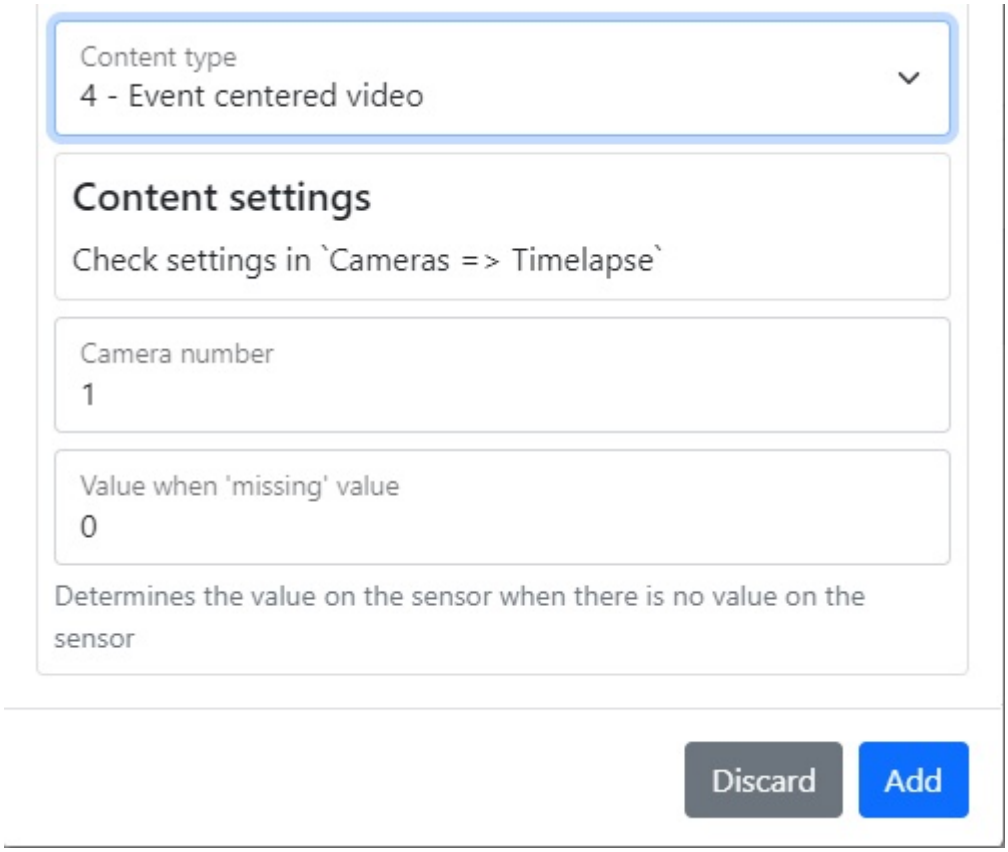
Parameter	**Parameter description**
Photo	Allows you to select the RTSP source, photo count, photo interval, and photo quality
Fixed time video	Allows you to select the RTSP source and the fixed video recording time
Event related video	Allows you to select the RTSP source and the maximum video time associated with the event
Time-lapse video	Allows you to select RTSP links, the number of photos, the interval between them and the number of frames per second
Event centered video	Allows you to select RTSP links and video time
Event related photo	Allows you to select the RTSP source, the interval between the photos associated with the event, their quantity and quality
Фото + Email	Allows you to select the RTSP source, photo count, interval between them and their quality

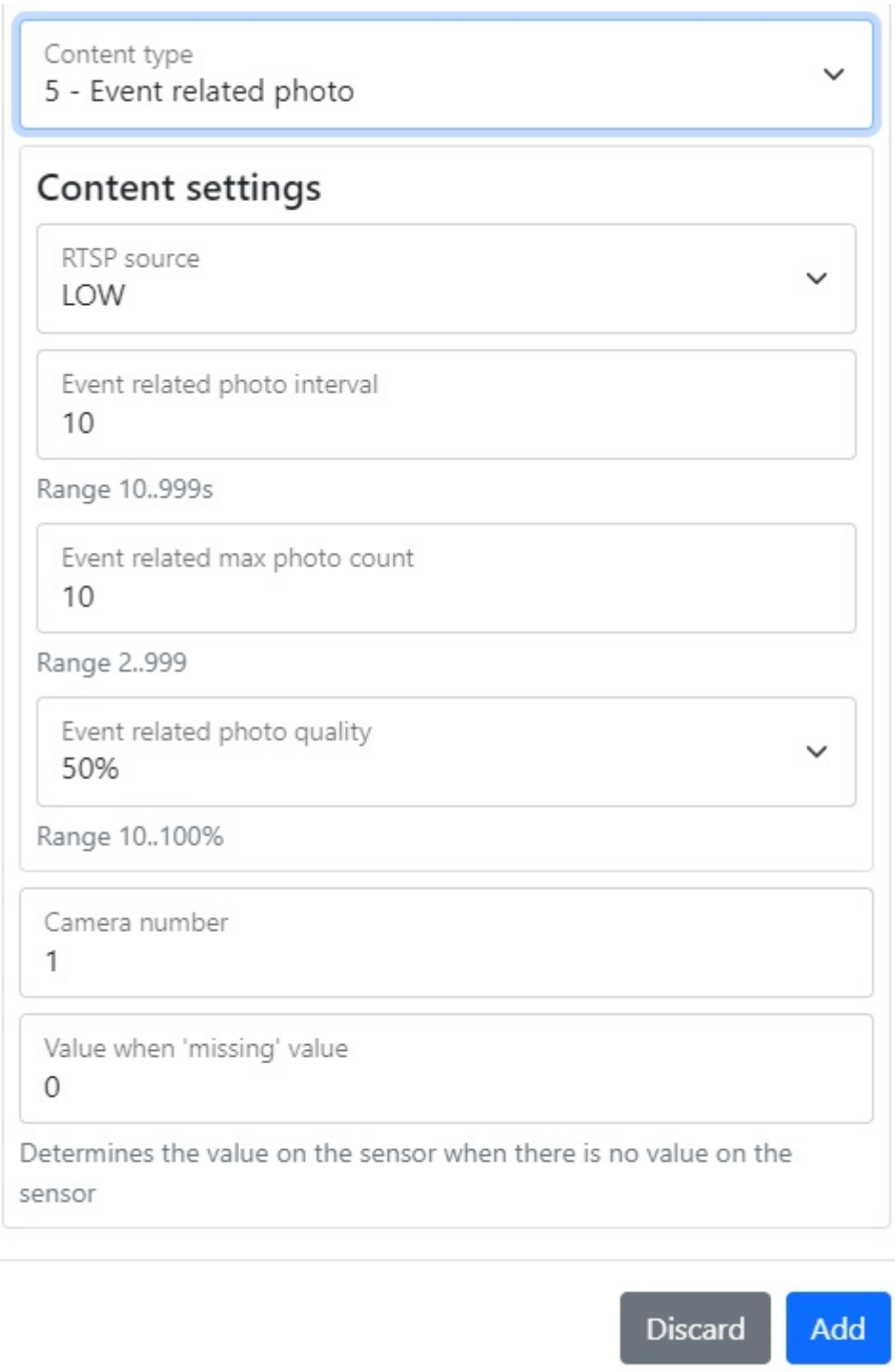
Figure 11 – types of the content

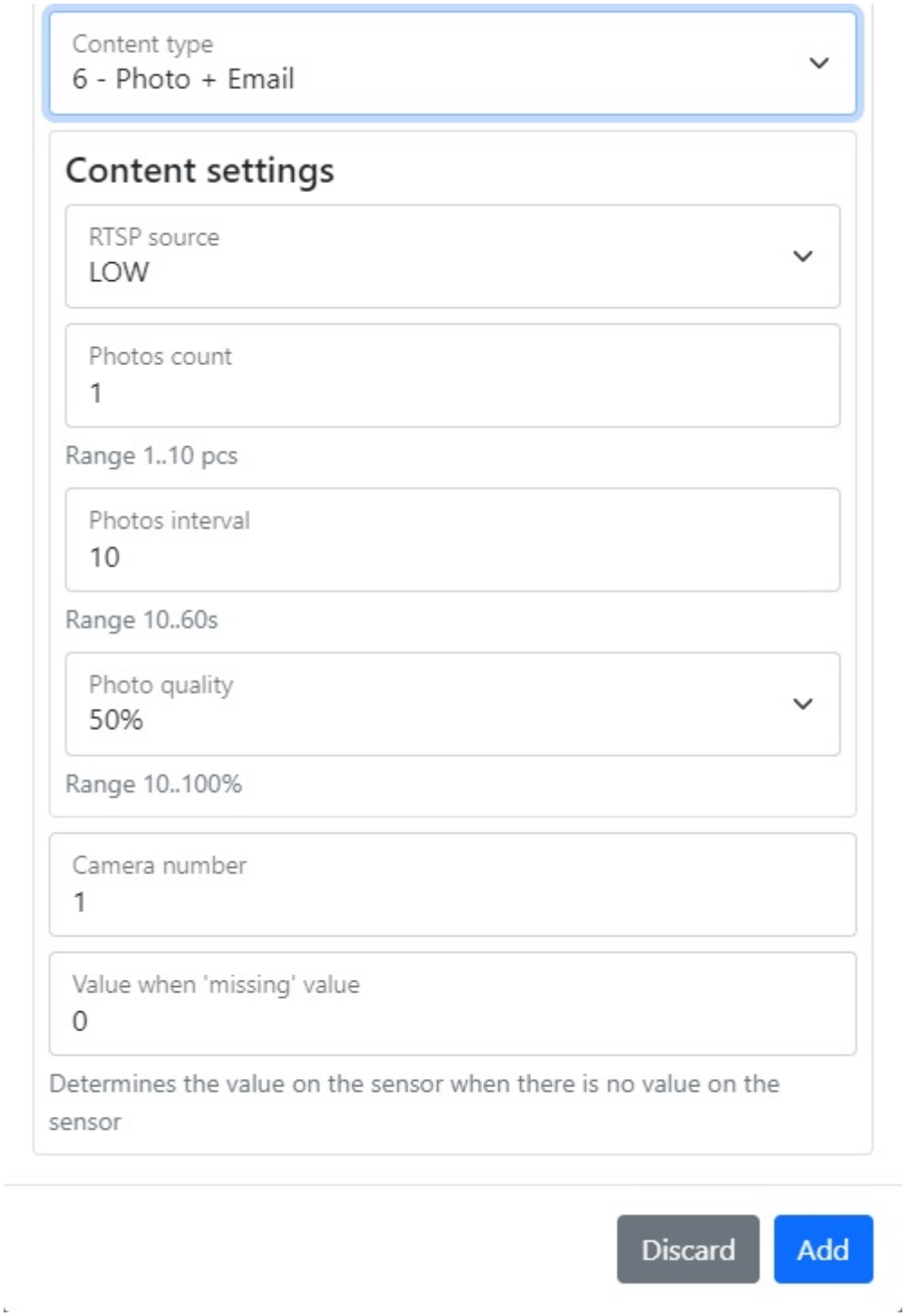

Content type
0 - Photo
Content settings
RTSP source
LOW
Photos count
1
Range 1..10 pcs
Photos interval
10
Range 10..60s
Photo quality
50%
Range 10..100%
Camera number
1
Value when 'missing' value
0
Determines the value on the sensor when there is no value on the sensor
Discard
Add

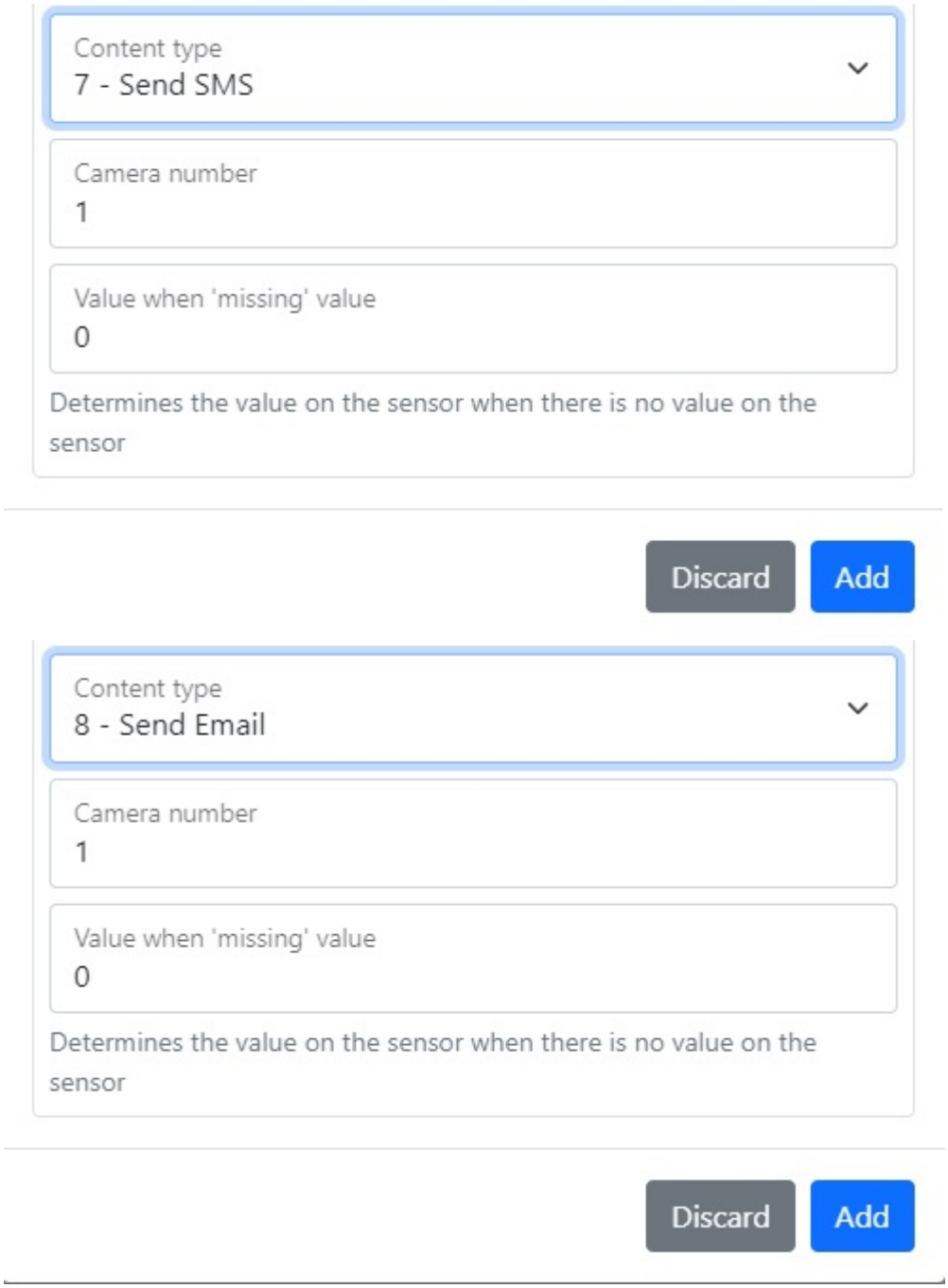

Content type
1 - Fixed time video
Content settings
RTSP source
LOW
Fixed time video time
10
Range 5..9999s
Camera number
1
Value when 'missing' value
0
Determines the value on the sensor when there is no value on the sensor
Discard
Add


Content type
2 - Event related video
Content settings
RTSP source
LOW
Event related video max time
10
Range 5..9999s
Camera number
1
Value when 'missing' value
0
Determines the value on the sensor when there is no value on the sensor
Discard
Add
Content type
3 - Time-lapse video
Content settings
Check settings in `Cameras => Timelapse`
Camera number
1
Value when 'missing' value
0
Determines the value on the sensor when there is no value on the sensor
Discard
Add


Content type
4 - Event centered video
Content settings
Check settings in `Cameras => Timelapse`
Camera number
1
Value when 'missing' value
0
Determines the value on the sensor when there is no value on the sensor
Discard
Add


Content type
5 - Event related photo
Content settings
RTSP source
LOW
Event related photo interval
10
Range 10..999s
Event related max photo count
10
Range 2..999
Event related photo quality
50%
Range 10..100%
Camera number
1
Value when 'missing' value
0
Determines the value on the sensor when there is no value on the sensor
Discard
Add


Content type
6 - Photo + Email
Content settings
RTSP source
LOW
Photos count
1
Range 1..10 pcs
Photos interval
10
Range 10..60s
Photo quality
50%
Range 10..100%
Camera number
1
Value when 'missing' value
0
Determines the value on the sensor when there is no value on the sensor
Discard
Add



CAN Sensor type

In the section you can select the type of device and find out information about it, device variable, camera number, photo count and its interval, RTSP source and link to it, maximum video time associated with the event, number of photos and frames per second, video time , the interval between the photo associated with the event, its count and quality, the type of content and event, the upper and lower limit, the average waiting time of the bus address CAN, PGN and CAN settings

Figure 12 - menu of CAN sensor type

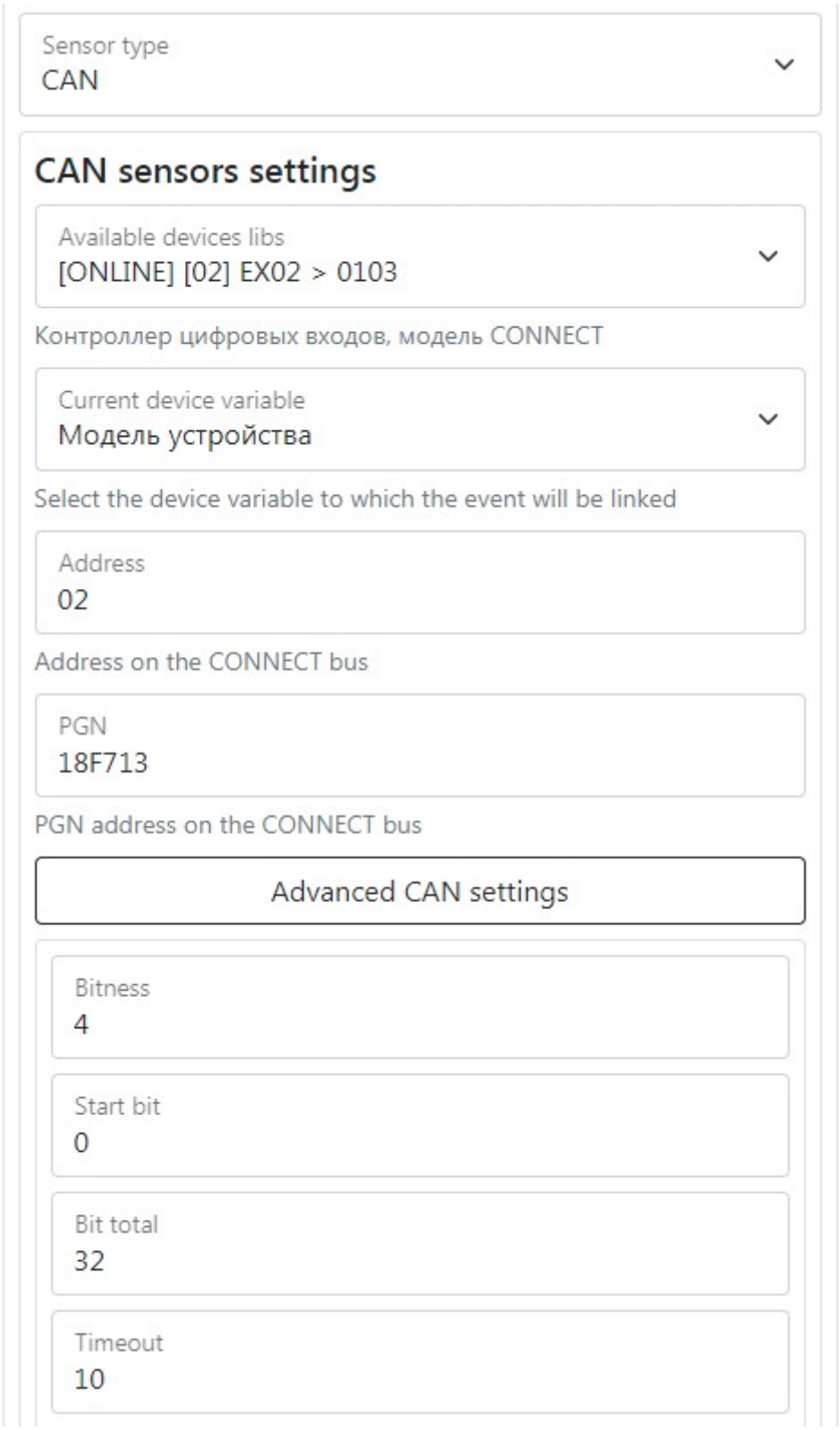


Table 2 – the description of parameters of the CAN sensor settings:

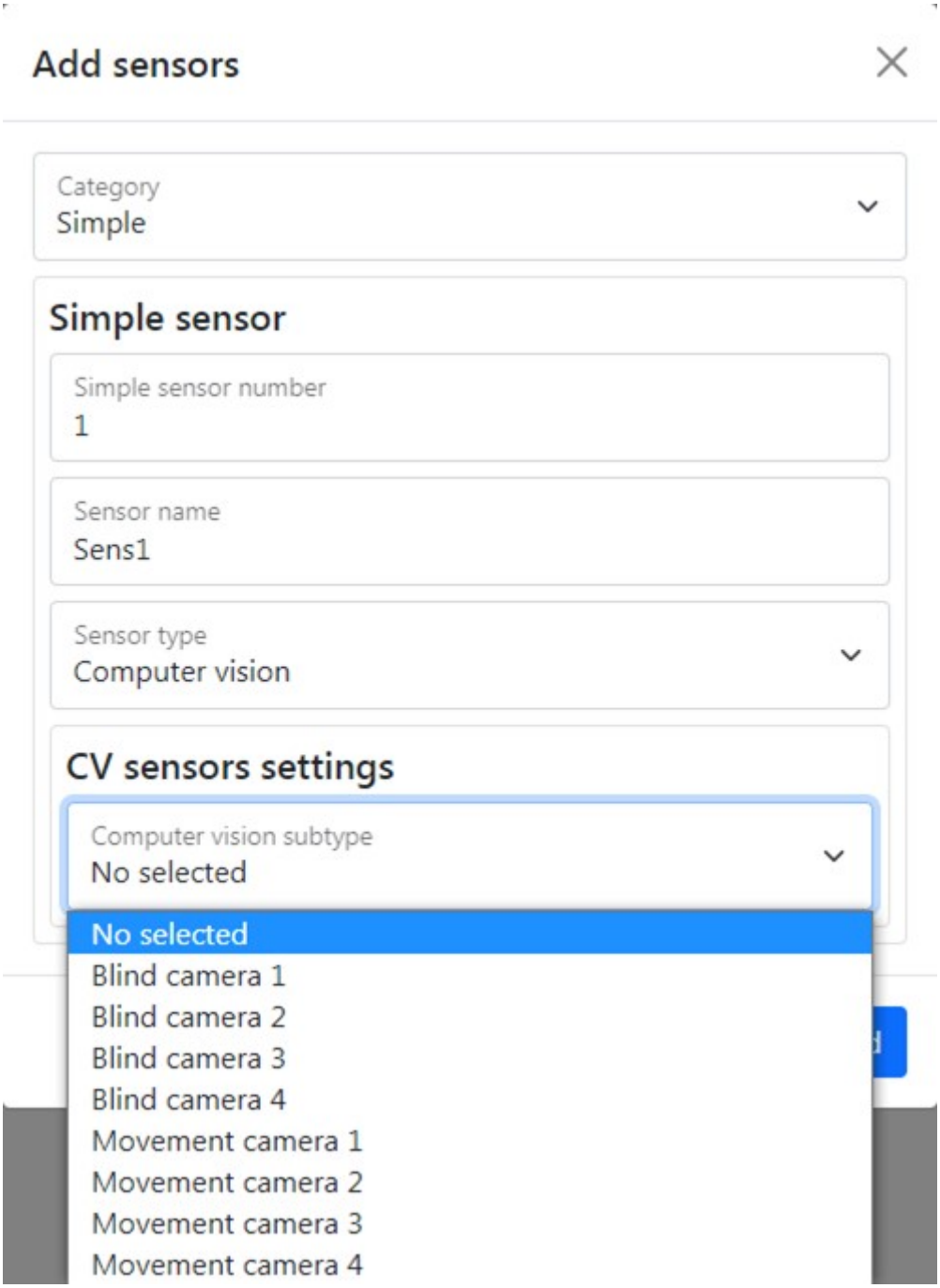
Parameter	**Parameter description**
Available device libs	Available preset for connected devices
Current device variable	Available variables for devices
Address	CONNECT ID
Bitness	Amount of bit the will be send by defined PGN
Start bit	Initial value of the bit
Bit total	The total number of bit

Parameter	Parameter description
Timeout	The pause between sending values

Computer vision

In the section you can select the type of event, camera number, photo count and its interval, RTSP source and link to it, maximum video time associated with the event, number of photos and frames per second, video time, interval between photos associated with event, its count and quality content type and events upper and lower limit, average latency and forwarding interval

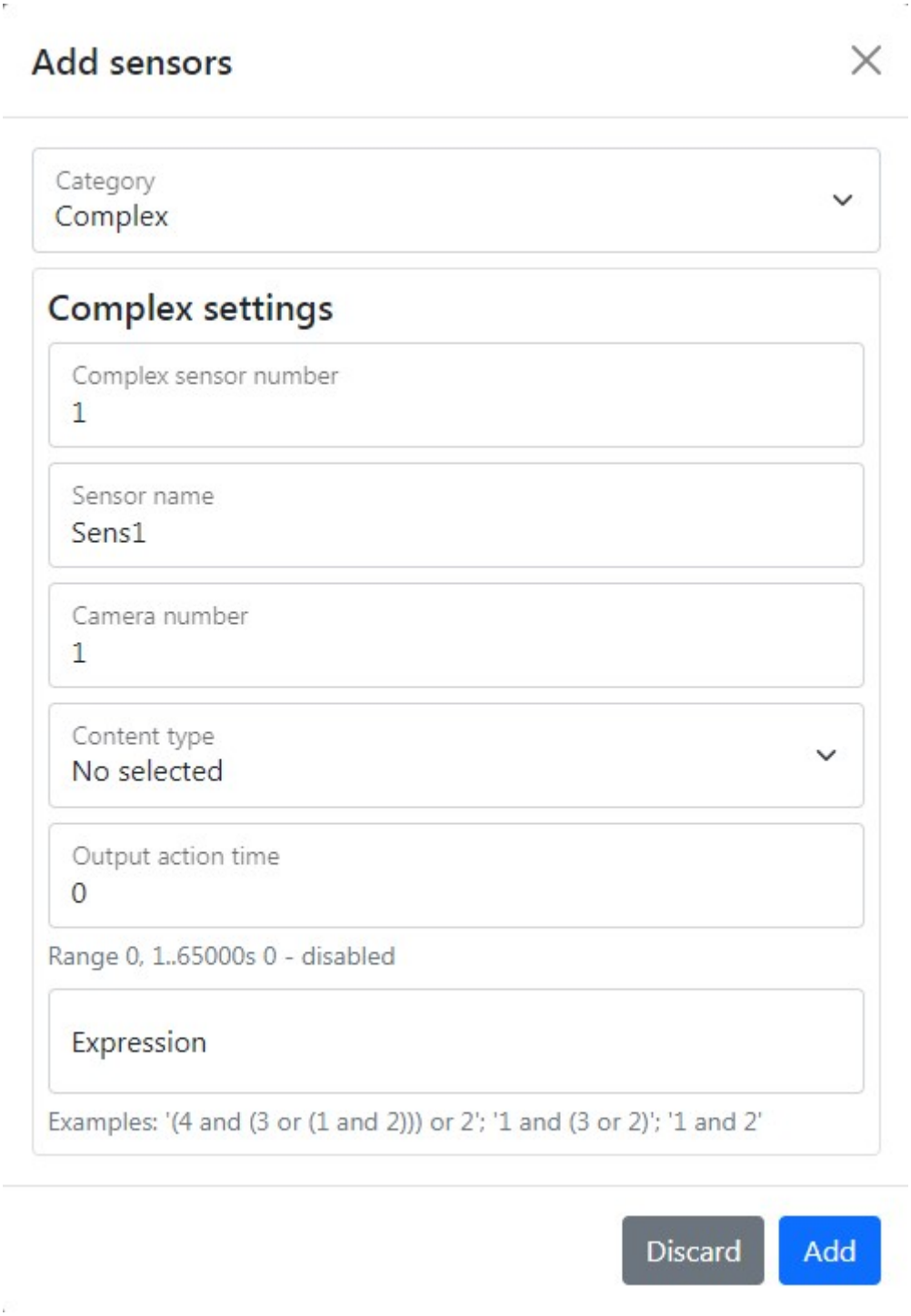
Figure 13 - menu of Computer vision sensor type



Adding complex sensor

When you create **two** or more sensor, you can combine it by creating complex sensor. To do that you need choose the sensor type, set output action time and write expression that should show the relationship between the sensor for their correct operation

Figure 14 – adding complex sensor menu



To set the **default** settings, click the Default button. To save settings in NVR click **Save settings** button.