



BIN 44 / 4X / 2X

**Universal Interface with Binary Inputs
and/or LED Lighting & Electronic Relay Outputs**

ZIO-BIN44
ZIO-BIN4X
ZIO-BIN2X

Application program version: [1.0]
User manual edition: [1.0]_a

www.zennio.com

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1 INTRODUCTION

1.1 BIN

The BIN product family from Zennio consists of a variety of small-size KNX interfaces, designed to be installed, for instance, inside electric appliance boxes. They allow connecting a variable number of **binary inputs** (pushbuttons, switches) while they also provide **LED and electronic relay control outputs** (up to 12V DC, 2 mA). Therefore, the same device is able to provide feedback to the LED indicators incorporated by many pushbuttons and switches or to operate low-current relays (e.g., heating system relays).

The BIN product family also incorporates the **Heartbeat** function, which consists in sending a periodical “still-alive” notification to the KNX bus.

The **number of input and output channels** depends on each specific model, being fixed in some of them or configurable by the integrator in those models where a sole channel can work either as an input or as an output:

1.1.1 BIN 44

- **4 fixed inputs**, configurable as:
 - Binary inputs.

- **4 fixed outputs**, configurable as:
 - LED lighting outputs.
 - Electronic relay control outputs (heating actuators).

1.1.2 BIN 4X

- **4 input / output channels**, freely configurable as:
 - Binary inputs.
 - LED Lighting Output.
 - Electronic Relay Control (Heating Actuator).

1.1.3 BIN 2X

- **2 input / output channels**, freely configurable as:
 - Binary inputs.
 - LED Lighting Output.
 - Electronic Relay Control (Heating Actuator).

1.2 INSTALLATION

BIN is connected to the KNX bus through the incorporated terminal connector, while the input lines are connected to BIN through a screw terminal block, bundled with the stripped cables already connected.

Once the device is provided with power from the KNX bus, both the individual address and the associated application program may be downloaded.

This device does not need any additional external power since it is entirely powered through the KNX bus.

- 1.- Slots for the input / output channels
- 2.- Programming button
- 3.- Programming LED
- 4.- KNX

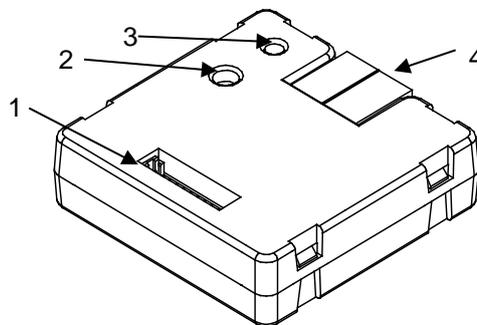


Figure 1. Element diagram.

The main elements are described next:

- **Prog./Test Button (2)**: a short press on this button sets the device into the programming mode, making the associated LED (3) light in red. If this button is held at the same time of applying bus power to the device, BIN will enter the Safe Mode. In such case, the LED will intermit in red.

- **Slots for the input / output lines:** slot for the insertion of the terminal block with cables (Figure 2) that permits BIN interfacing with the different input and output elements.

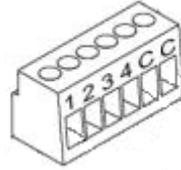


Figure 2. Input / output terminal block

To obtain further information about the technical features of BIN 44 / 4X / 2X and on security and installation procedures, please refer to the **Datasheet** of the device, bundled with the original packaging and also available at the <http://www.zennio.com> website.

2 CONFIGURATION

2.1 GENERAL

After importing the corresponding database in ETS and adding the device into the topology of the desired project, the configuration process begins by right-clicking into the device and selecting *Edit parameters*.

ETS PARAMETERISATION

The only parameterisable screen available by default is General. From this screen it is possible to activate/deactivate all the required functionality.

GENERAL

GENERAL CONFIGURATION

Startup Delay: 0 x1 s

ENABLE INPUTS AND OUPUTS

Input 1	<input checked="" type="radio"/> Disabled	<input type="radio"/> Binary Input
Input 2	<input checked="" type="radio"/> Disabled	<input type="radio"/> Binary Input
Input 3	<input checked="" type="radio"/> Disabled	<input type="radio"/> Binary Input
Input 4	<input checked="" type="radio"/> Disabled	<input type="radio"/> Binary Input
Output 1	Disabled	
Output 2	Disabled	
Output 3	Disabled	
Output 4	Disabled	

HEARTBEAT

Heartbeat (Periodical Alive Notification)

Figure 3. Default configuration (BIN 44).

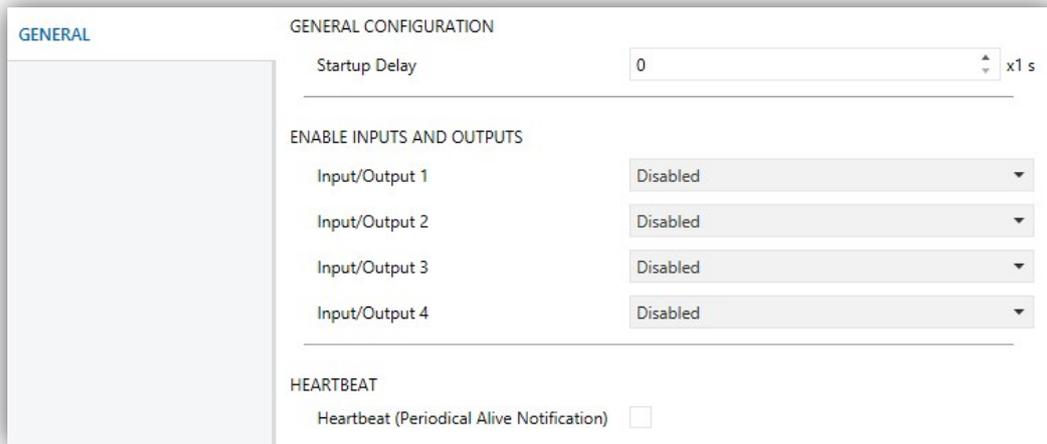


Figure 4. Default configuration (BIN 4X).

- **Start-up Delay:** sets a delay (0-255 seconds) after the initialisation so the device does not respond to orders nor send objects to the bus (except the Heartbeat object, if enabled; see below).
- **Inputs and Outputs:** checkboxes that allow selecting which inputs and outputs will be functional (or which channels will behave as inputs and which channels as outputs, in the case of BIN 44). After enabling them, additional tabs will be incorporated to the tab tree on the left. These functions and their parameters will be explained in later sections of this document.
- **Heartbeat (Periodical Alive Notification):** lets the integrator incorporate a one-bit object to the project (“**[Heartbeat] Object to Send ‘1’**”) that will be sent periodically with value “1” to notify that the device is still working (*still alive*)

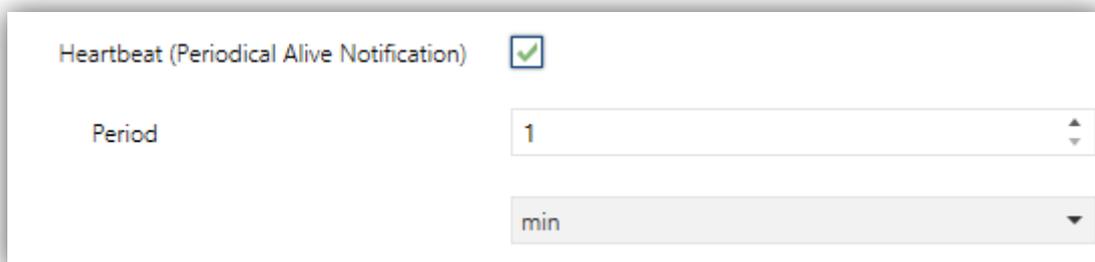


Figure 5. Heartbeat (Periodical Alive Notification).

2.2 INPUTS / OUTPUTS

2.2.1 BIN 44

BIN 44 incorporates **four inputs** and **four outputs**, configurable as:

- **Inputs:** pushbuttons or switches. See section 2.2.3.
- **Outputs:**
 - **Low-current LED lighting controls**, for low current LED control. Brightness level, simple timer or flashing can be configured. See section 2.2.4.
 - **Electronic relay controls** for heating systems. See section 2.2.5.

2.2.2 BIN 4X / 2X

BIN 4X and BIN 2X incorporate, respectively, **four or two input/output channels**, each of them configurable as a:

- **Binary Input.** See section 2.2.3.
- **LED Lighting Output.** See section 2.2.4.
- **Electronic Relay Control (Heating Actuator).** See section 2.2.5.

2.2.3 BINARY INPUT

Please refer to the “**Binary Inputs**” user manual, available in the BIN product section at the Zennio website (<http://www.zennio.com>).

2.2.4 LED LIGHTING OUTPUT

The LED lighting control permits commuting each LED between two states: **off** (which not necessarily means “no light”) and **on** (which not necessarily means “light on”). Moreover, the LEDs can also switch between two operation modes: the **normal mode** and the **night mode**. The second one is optional and is provided for temporary situations and environments where an excess of brightness may disturb the user. In

such cases, it will be possible to switch the mode by means of a one-bit object and/or a scene object.

These settings are common for all outputs configured as LEDs. On the contrary, **timers, flashing** and **status objects** can be configured independently for each output.

2.2.4.1 GENERAL CONFIGURATION

The general configuration of the LED outputs entails setting the brightness levels for the on and off states, both for the normal mode and for the night mode (if required).

ETS PARAMETERISATION

A general Configuration tab for the LED Outputs function is provided once at least one output has been configured as a LED Lighting Output. This tab contains the settings that are common to all LED outputs.

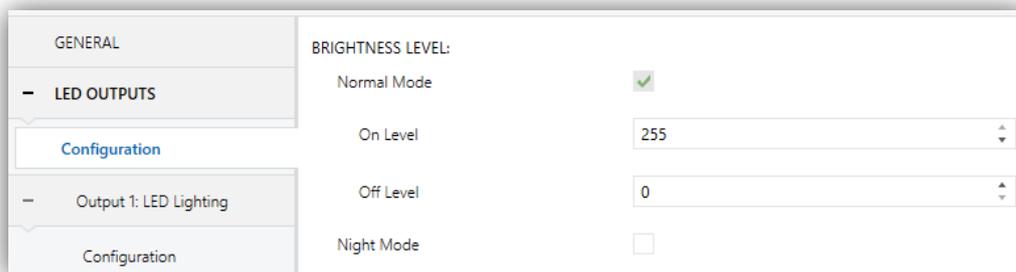


Figure 6. LED Outputs - General configuration.

● Normal Mode:

- **On Level:** sets the brightness level value for on state, between 0 and 255 (default).
- **Off Level:** sets the brightness level values for off state, between 0 (default) and 255.

● Night Mode: in case of being this mode necessary, this checkbox needs to be marked:

- **On Level:** sets the brightness level values for on state, between 0 and 255 (8 by default).

- **Off Level:** sets the brightness level values for off state, between 0 and 255 (1 by default).

In case of enabling the night mode, some more options can be configured:

The screenshot shows the configuration interface for LED outputs. The left sidebar has a tree view with 'GENERAL', 'LED OUTPUTS', and 'Output 1: LED Lighting' expanded. The main area is titled 'Configuration' and is divided into two sections: 'BRIGHTNESS LEVEL:' and 'BRIGHTNESS MODE CONTROL'.

BRIGHTNESS LEVEL:

- Normal Mode:
- On Level: 255
- Off Level: 0
- Night Mode:
- On Level: 8
- Off Level: 0
- Brightness Mode after ETS Download: Normal Night

BRIGHTNESS MODE CONTROL

- 1-bit Object:
- Value: 0 = Normal; 1 = Night 0 = Night; 1 = Normal
- Scene Object:
- Normal: Scene Number: 1
- Night: Scene Number: 2

Figure 7. LED Outputs - General Configuration - Night Mode

- **Brightness Mode after ETS download:** sets which of the two modes (“Normal” or “Night”) will be active after an ETS Download.
- **1-bit Object:** when marked, it will be possible to switch the mode by writing to a binary object (“**[LED] Brightness Mode**”). The parameter **Value** will show up to select which value should trigger which mode (“0 = Normal; 1 = Night” or “0 = Night; 1 = Normal”).
- **Scene Object:** when marked, it will be possible to switch the mode by writing a certain scene value to “**[LED] Scene**”. Two specific textboxes will show up to enter what scenes (1 through 64) will trigger each mode.

2.2.4.2 OUTPUT X: LED LIGHTING – CONFIGURATION

As already stated, each LED output allows an independent configuration of its **status object**, **timer** and **flashing** functions.

The **Timer** function consists in performing a single, timed switch-on / switch-off cycle when a specific trigger object is received.

On the other hand, the **Flashing** function consists in performing a continuous, timed on/off sequence when a specific trigger object is received.

ETS PARAMETERISATION

A specific Configuration tab is provided for each enabled LED output. It contains the following parameters:

GENERAL	Show Status Objects	<input checked="" type="checkbox"/>
LED OUTPUTS	Enable Timer	<input checked="" type="checkbox"/>
Configuration	Enable Flashing	<input checked="" type="checkbox"/>
Output 1: LED Lighting	TIMER:	
Configuration	On Duration	5 x1 s
	FLASHING:	
	On Duration	5 x0.1 s
	Off Duration	5 x0.1 s

Figure 8. Output X: LED Lighting – Configuration.

- **Show Status Objects:** if enabled, the “[LEDx] LED Status” object is added to the project. It takes value ‘0’ when the LED is in the off state and value ‘1’ when the LED is in the on state. This object is sent to the bus whenever the status is updated.
- **Enable Timer:** enables the timer function.
 - **On Duration:** sets how much time (0 to 255 seconds) the output will remain in the on state once the timer is activated. If set to zero, the output will not switch off afterwards.

- **Enable Flashing:** enables the flashing function.
 - **On Duration:** length of each “on” stage (1 to 255 tenths of a second).
 - **Off Duration:** length of each “on” stage (1 to 255 tenths of a second).

The following objects are also related to the functionality of each LED output:

- “[LEDx] On/Off” (binary): when it receives the value “1”, the LED will switch to the on state, while the value “0” will switch it off.
- “[LEDx] Inverted On/Off” (binary): performs an inverse control of the LED. When it receives the value “0”, the LED will switch to the on state, while the value “1” will switch it off.
- “[LEDx] Timer” (binary): when it receives the value “1”, the LED timer function will start, while the value “0” will stop it.
- “[LEDx] Flashing” (binary): when it receives the value “1”, the LED flashing function will trigger, while the value “0” will stop it.

2.2.5 ELECTRONIC RELAY CONTROL (HEATING ACTUATOR)

Please refer to “**Electronic Relay Control in Heating Systems**” specific manual, available in the BIN product section at the Zennio website, <http://www.zennio.com>.

Note: *BIN does not implement the following options, although they are included in the above document:*

- *Overload/short-circuit notification.*
- *Start-up delay (the general start-up delay is applied instead; see section 2.1).*

ANNEX I. COMMUNICATION OBJECTS

- “Functional range” shows the values that, with independence of any other values permitted by the bus according to the object size, may be of any use or have a particular meaning because of the specifications or restrictions from both the KNX standard or the application program itself.

Number	Size	I/O	Flags	Data type (DPT)	Functional Range	Name	Function
1, 7, 13(*), 19(*)	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] Input Lock	0 = Unlock; 1 = Lock
2, 8, 14(*), 20(*)	1 Bit		C T - - -	DPT_Switch	0/1	[Ix] [Short Press] 0	Sending of 0
	1 Bit		C T - - -	DPT_Switch	0/1	[Ix] [Short Press] 1	Sending of 1
	1 Bit	I	C T - W -	DPT_Switch	0/1	[Ix] [Short Press] 0/1 Switching	Switching 0/1
	1 Bit		C T - - -	DPT_UpDown	0/1	[Ix] [Short Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit		C T - - -	DPT_UpDown	0/1	[Ix] [Short Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit		C T - - -	DPT_UpDown	0/1	[Ix] [Short Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit		C T - - -	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step Up)
	1 Bit		C T - - -	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step Down)
	1 Bit		C T - - -	DPT_Step	0/1	[Ix] [Short Press] Stop/Step Shutter (Switched)	Switching of 0/1 (Stop/Step Up/Down)
	4 Bit		C T - - -	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x7 (Dec. by 1%) 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[Ix] [Short Press] Brighter	Increase Brightness
	4 Bit		C T - - -	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x7 (Dec. by 1%) 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[Ix] [Short Press] Darker	Decrease Brightness
	4 Bit		C T - - -	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x7 (Dec. by 1%) 0x8 (Stop)	[Ix] [Short Press] Brighter/Darker	Switch Bright/Dark

				0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)		
	1 Bit		CT---	DPT_Switch	0/1	[Ix] [Short Press] Light On Sending of 1 (On)
	1 Bit		CT---	DPT_Switch	0/1	[Ix] [Short Press] Light Off Sending of 0 (Off)
	1 Bit	I	CT-W-	DPT_Switch	0/1	[Ix] [Short Press] Light On/Off Switching 0/1
	1 Byte		CT---	DPT_SceneControl	0-63; 128-191	[Ix] [Short Press] Run Scene Sending of 0 - 63
	1 Byte		CT---	DPT_SceneControl	0-63; 128-191	[Ix] [Short Press] Save Scene Sending of 128 - 191
	1 Bit	I/O	CTRW-	DPT_Switch	0/1	[Ix] [Switch/Sensor] Edge Sending of 0 or 1
	1 Byte		CT---	DPT_Value_1_Ucount	0 - 255	[Ix] [Short Press] Constant Value (Integer) 0 - 255
	1 Byte		CT---	DPT_Scaling	0% - 100%	[Ix] [Short Press] Constant Value (Percentage) 0% - 100%
	2 Bytes		CT---	DPT_Value_2_Ucount	0 - 65535	[Ix] [Short Press] Constant Value (Integer) 0 - 65535
	2 Bytes		CT---	9.xxx	-671088.64 - 670760.96	[Ix] [Short Press] Constant Value (Float) Float Value
	2 Bytes	O	CTR--	DPT_Value_2_Ucount	0 - 65535	[Ix] [Pulse Counter] Counter Number of Pulses
3, 9, 15(*), 21(*)	1 Byte	I	---W-	DPT_Scaling	0% - 100%	[Ix] [Short Press] Shutter Status (Input) 0% = Top; 100% = Bottom
	1 Byte	I	---W-	DPT_Scaling	0% - 100%	[Ix] [Short Press] Dimming Status (Input) 0% - 100%
	1 Byte	O	CTR--	DPT_Value_1_Ucount	0 - 255	[Ix] [Pulse Counter] Counter Number of Pulses
4, 10, 16(*), 22(*)	1 Bit		CT---	DPT_Switch	0/1	[Ix] [Long Press] 0 Sending of 0
	1 Bit		CT---	DPT_Switch	0/1	[Ix] [Long Press] 1 Sending of 1
	1 Bit	I	CT-W-	DPT_Switch	0/1	[Ix] [Long Press] 0/1 Switching Switching 0/1
	1 Bit		CT---	DPT_UpDown	0/1	[Ix] [Long Press] Move Up Shutter Sending of 0 (Up)
	1 Bit		CT---	DPT_UpDown	0/1	[Ix] [Long Press] Move Down Shutter Sending of 1 (Down)
	1 Bit		CT---	DPT_UpDown	0/1	[Ix] [Long Press] Move Up/Down Shutter Switching 0/1 (Up/Down)
	1 Bit		CT---	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Up Shutter Sending of 0 (Stop/Step Up)
	1 Bit		CT---	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Down Shutter Sending of 1 (Stop/Step Down)
	1 Bit		CT---	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Shutter (Switched) Switching of 0/1 (Stop/Step Up/Down)
	4 Bit		CT---	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x7 (Dec. by 1%) 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[Ix] [Long Press] Brighter Long Pr. -> Brighter; Release -> Stop
	4 Bit		CT---	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ...	[Ix] [Long Press] Darker Long Pr. -> Darker; Release -> Stop

				0x7 (Dec. by 1%) 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)			
4 Bit		CT---	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x7 (Dec. by 1%) 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[Ix] [Long Press] Brighter/Darker	Long Pr. -> Brighter/Darker; Release -> Stop	
1 Bit		CT---	DPT_Switch	0/1	[Ix] [Long Press] Light On	Sending of 1 (On)	
1 Bit		CT---	DPT_Switch	0/1	[Ix] [Long Press] Light Off	Sending of 0 (Off)	
1 Bit	I	CT-W-	DPT_Switch	0/1	[Ix] [Long Press] Light On/Off	Switching 0/1	
1 Byte		CT---	DPT_SceneControl	0-63; 128-191	[Ix] [Long Press] Run Scene	Sending of 0 - 63	
1 Byte		CT---	DPT_SceneControl	0-63; 128-191	[Ix] [Long Press] Save Scene	Sending of 128 - 191	
1 Bit	O	CTR--	DPT_Alarm	0/1	[Ix] [Switch/Sensor] Alarm: Breakdown or Sabotage	1 = Alarm; 0 = No Alarm	
2 Bytes		CT---	9.xxx	-671088.64 - 670760.96	[Ix] [Long Press] Constant Value (Float)	Float Value	
2 Bytes		CT---	DPT_Value_2_Ucount	0 - 65535	[Ix] [Long Press] Constant Value (Integer)	0 - 65535	
1 Byte		CT---	DPT_Scaling	0% - 100%	[Ix] [Long Press] Constant Value (Percentage)	0% - 100%	
1 Byte		CT---	DPT_Value_1_Ucount	0 - 255	[Ix] [Long Press] Constant Value (Integer)	0 - 255	
1 Bit		CT---	DPT_Switch	0/1	[Ix] [Double Press] 0	Sending of 0	
1 Bit		CT---	DPT_Switch	0/1	[Ix] [Double Press] 1	Sending of 1	
1 Bit	I	CT-W-	DPT_Switch	0/1	[Ix] [Double Press] 0/1 Switching	Switching 0/1	
1 Byte		CT---	DPT_SceneControl	0-63; 128-191	[Ix] [Double Press] Save Scene	Sending of 128 - 191	
1 Byte		CT---	DPT_SceneControl	0-63; 128-191	[Ix] [Double Press] Run Scene	Sending of 0 - 63	
5, 11, 17(*), 23(*)	1 Bit	CT---	DPT_Trigger	0/1	[Ix] [Long Press/Release] Stop Shutter	Release -> Stop Shutter	
	1 Bit	I	C--W-	DPT_Trigger	0/1	[Ix] [Pulse Counter] Reset	0 = No Action; 1 = Reset
6, 12, 18(*), 24(*)	1 Byte	I	C--W-	DPT_Scaling	0% - 100%	[Ix] [Long Press] Dimming Status (Input)	0% - 100%
	1 Byte	I	C--W-	DPT_Scaling	0% - 100%	[Ix] [Long Press] Shutter Status (Input)	0% = Top; 100% = Bottom
25(*), 30(*), 35(*), 40(*), 13(**), 18(**)	1 Bit	I	C--W-	DPT_Switch	0/1	[LEDx] On/Off	0 = Off; 1 = On
26(*), 31(*), 36(*), 41(*)	1 Bit	I	C--W-	DPT_Scene_AB	0/1	[LEDx] Inverted On/Off	0 = On; 1 = Off

14(**), 19(**)							
27(*), 32(*), 37(*), 42(*), 15(**), 20(**)	1 Bit	O	C T R - -	DPT_Switch	0/1	[LEDx] LED Status	0 = Off; 1 = On
28(*), 33(*), 38(*), 43(*), 16(**), 21(**)	1 Bit	I	C - - W -	DPT_Start	0/1	[LEDx] Timer	0 = Switch Off; 1 = Switch On
29(*), 34(*), 39(*), 44(*), 17(**), 22(**)	1 Bit	I	C - - W -	DPT_Start	0/1	[LEDx] Flashing	0 = Stop; 1 = Start
45(*), 23(**)	1 Bit	I	C - - W -	DPT_Switch	0/1	[LED] Brightness Mode	0 = Normal; 1 = Night
	1 Bit	I	C - - W -	DPT_Switch	0/1	[LED] Brightness Mode	0 = Night; 1 = Normal
46(*), 24(**)	1 Byte	I	C - - W -	DPT_SceneNumber		[LED] Scene	1 - 64
47(*), 25(**)	1 Bit	O	C T R - -	DPT_Bool	0/1	[HC] All Valves Are Closed	0 = False; 1 = True
	1 Bit	O	C T R - -	DPT_Bool	0/1	[HC] All Valves Are Closed	0 = True; 1 = False
48(*), 26(**)	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[HC] Max. Control Value (Output)	0 - 100 %
49(*), 27(**)	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[HC] Max. Control Value (Input)	0 - 100 %
52(*), 64(*), 76(*), 88(*), 30(**), 42(**)	1 Bit	I	C - - W -	DPT_Enable	0/1	[HCx] Lock	0 = Unlock; 1 = Lock
53(*), 65(*), 77(*), 89(*), 31(**), 43(**)	1 Bit	I	C - - W -	DPT_Alarm	0/1	[HCx] Alarm	0 = No Alarm; 1 = Alarm
	1 Bit	I	C - - W -	DPT_Alarm	0/1	[HCx] Alarm	0 = Alarm; 1 = No Alarm
54(*), 66(*), 78(*), 90(*), 32(**), 44(**)	1 Bit	I	C - - W -	DPT_Alarm	0/1	[HCx] Alarm 2	0 = No Alarm; 1 = Alarm
	1 Bit	I	C - - W -	DPT_Alarm	0/1	[HCx] Alarm 2	0 = Alarm; 1 = No Alarm
55(*), 67(*), 79(*), 91(*), 33(**), 45(**)	1 Bit	I	C - - W -	DPT_Trigger	0/1	[HCx] Unfreeze Alarm	Alarm = No Alarm + Unfreeze (1)-> End Alarm
	1 Bit	I	C - - W -	DPT_Trigger	0/1	[HCx] Unfreeze Alarm	Alarm = Alarm 2 = No Alarm + Unfreeze (1)-> End Alarm
56(*), 68(*), 80(*), 92(*), 34(**), 46(**)	1 Bit	O	C T R - -	DPT_Bool	0/1	[HCx] Control Value - Error	0 = No Error; 1 = Error
57(*), 69(*), 81(*), 93(*), 35(**), 47(**)	1 Bit	O	C T R - -	DPT_State	0/1	[HCx] Anti-Seize Protection	0 = Inactive; 1 = Active
58(*), 70(*), 82(*), 94(*), 36(**), 48(**)	1 Bit	I	C - - W -	DPT_Switch	0/1	[HCx] Control Value - 1 bit	0 = Off; 1 = On
59(*), 71(*), 83(*), 95(*), 37(**), 49(**)	1 Bit	O	C T R - -	DPT_Switch	0/1	[HCx] Control Value - 1 bit (Status)	0 = Off; 1 = On

60(*), 72(*), 84(*), 96(*), 38(**), 50(**)	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[HCx] Control Value - 1 byte	0 - 100 %
61(*), 73(*), 85(*), 97(*), 39(**), 51(**)	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[HCx] Control Value - 1 byte (Status)	0 - 100 %
98(*), 52(**)	1 Bit		C T - - -	DPT_Trigger	0/1	[Heartbeat] Object to Send '1'	Sending of '1' Periodically

(*) Does not apply to BIN 2X.

(**) Only applies to BIN 2X.

Join and send us your inquiries
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<http://support.zennio.com>

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