Zennio
ZIOMB24V2
MAXinBOX
Outputs KNX
Actuator

Zennio ZIOMB24V2 MAXinBOX Outputs KNX Actuator Owner's Manual

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Zennio

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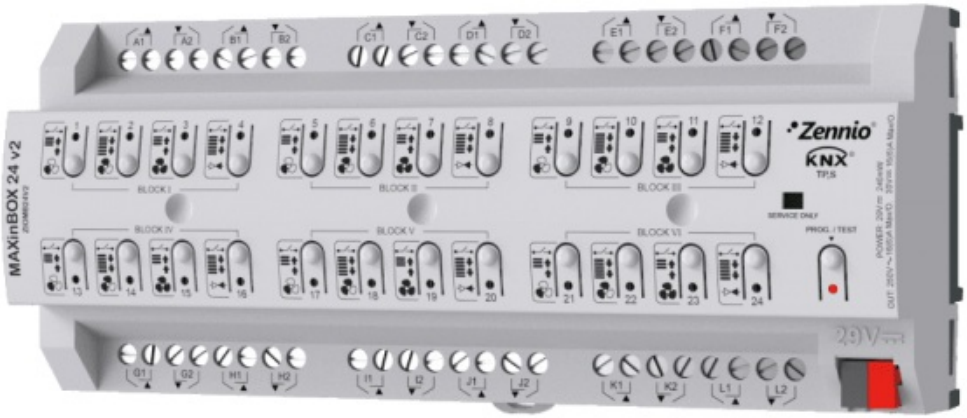

Product Information

The MAXinBOX series from Zennio includes versatile KNX actuators with various relay outputs. They offer functions such as individual ON/OFF outputs, independent shutter channels, fan coil modules, customizable logic functions, master light control modules, scene-triggered actions, manual operation via push buttons, heartbeat notifications, and more. Each model in the series differs in the number of relay outputs it provides.

Specifications

- **Product Name:** MAXinBOX
- **Versions:** 24 v2, 20, 16 v4, 12, 8 v4
- **Outputs:** 24 / 20 / 16 / 12 / 8
- **Manufacturer:** Zennio

Product Usage Instructions

1. **Start-Up and Power Loss**
   During start-up, the Prog./Test LED will blink in blue for a few seconds before the device is ready. External orders will not be executed during this time. After start-up, specific actions may be performed based on configuration settings. In case of a bus power failure, MAXinBOX will save its state and interrupt any pending actions until power is restored. Shutter channels will stop in the event of a power loss.
2. **Operation Modes**
   The MAXinBOX can be operated in different modes:
   - **Individual ON/OFF Outputs:** Configure relay outputs to switch individual devices on or off.
   - **Shutter Channels:** Control independent shutter channels with or without slats.
   - **Fan Coil Modules:** Control fan speed and valve using relays.
   - **Custom Logic Functions:** Create custom multi-operation logic functions.
3. **Scene-Triggered Actions**
   Set up scene-triggered actions with optional delays for execution. This feature allows for automation based on predefined scenarios.
4. **Manual Operation**
   Supervise and manually operate relay outputs using the onboard pushbuttons and LEDs for quick control and monitoring.
5. **KNX Security**
   For detailed information on KNX security functionality and configuration, refer to the specific user manual

available on the Zennio website.

FAQ

- **Q: Can I configure the relay outputs to act as both individual ON/OFF outputs and shutter channels simultaneously?**
  A: Yes, the relay outputs are configurable to support a combination of functions including individual ON/OFF control and independent shutter channel operation.
- **Q: How can I reset the device to its default settings?**
  A: To reset the device to factory defaults, refer to the user manual for specific instructions on performing a reset procedure.

Models

- MAXinBOX 24 v2
- MAXinBOX 20
- MAXinBOX 16 v4
- MAXinBOX 12
- MAXinBOX 8 v4

Multifunction Actuator with 24 / 20 / 16 / 12 / 8 Outputs

- ZIOMB24V2
- ZIOMB20
- ZIOMB16V4
- ZIOMB12
- ZIOMB8V4

INTRODUCTION

MAXINBOX 24 v2 / 20 / 16 v4 / 12 / 8 v4
MAXinBOX 16 v4, MAXinBOX 12, and MAXinBOX 8 v4 from Zennio are two versatile KNX actuators featuring a wide variety of functions, being both of them entirely equivalent except for the number of relay outputs they offer (24, 20, 16, 12, and 8, respectively). Its main functionalities are:

- Relay outputs, respectively, are configurable as:
  - Individual ON/OFF outputs,
  - Independent shutter channels (with or without slats),
  - Two-pipe fan coil modules where both the fan speed control and the valve control are performed through relays,
  - A combination of the above.
- Customizable, multi-operation logic functions.
- Master light control modules for an easy, out-of-the-box control of a set of luminaires (or functionally equivalent devices) one of which acts as a general lamp and the others as secondary lamps.
- Scene-triggered action control, with an optional delay in the execution.

- Manual operation/supervision of the relay outputs through the on-board pushbuttons and LEDs.
- Heartbeat or periodical “still-alive” notification.
- Relay Switches Counter.
- KNX Security: for detailed information about the functionality and configuration of KNX security, consult the specific user manual “KNX Security”, available in the product section of the Zennio web portal (www.zennio.com). MAXinBOX 24 v2 does not include this functionality.

Note:
“ANNEX II. Functionalities per model” shows a table as a summary of the functionalities and number of functional blocks of each model.

START-UP AND POWER LOSS

- During the start-up of the device, the Prog./Test LED will blink in blue color for a few seconds before the device is ready. External orders will not be executed during this time, but afterwards.
- Depending on the configuration, some specific actions will also be performed during the start-up. For example, the integrator can set whether the output channels should switch to a particular state and whether the device should send certain objects to the bus after the power recovery. Please consult the next sections of this document for further details.
- On the other hand, when a bus power failure takes place, MAXinBOX will interrupt any pending actions and will save its state so it can be recovered once the power supply is restored.
- For safety reasons, all shutter channels will be stopped (i.e., the relays will open) if a power loss takes place, while the individual outputs and fan coil contacts will switch to the specific state configured in ETS (if any).

CONFIGURATION

GENERAL

After importing the corresponding database in ETS and adding the device to the topology of the desired project, the configuration process begins by entering the Parameters tab of the device.

ETS PARAMETERISATION

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

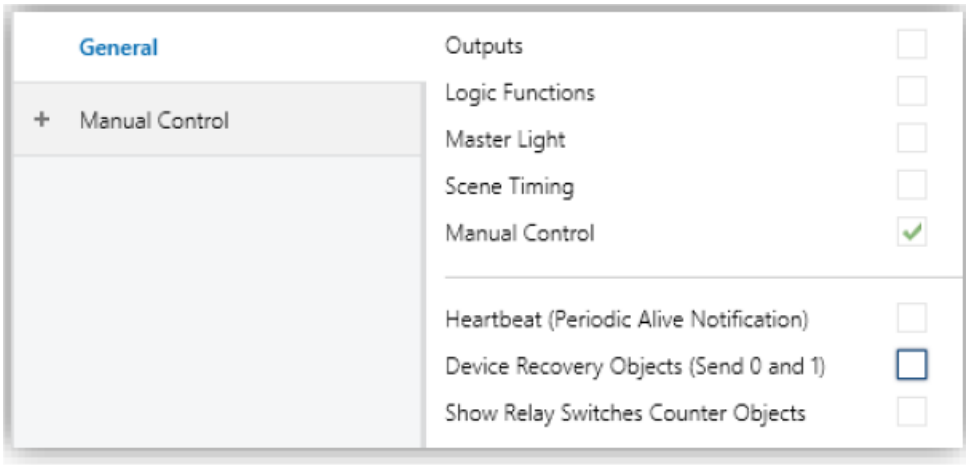

Figure 1. General screen

- Outputs [disabled / enabled]1: enables o disables the “Outputs” tab on the left menu. See section 2.2 for more details.
- Logic Functions [disabled / enabled]: enables o disables the “Logic Functions” tab on the left menu. See section 2.3 for more details.
- Master Light [disabled / enabled]: enables o disables the “Master Light” tab on the left menu. See section 2.4 for more details.
- Scene Temporization [disabled / enabled]: enables o disables the “Scene Temporization” tab on the left menu. See section 2.5 for more details.
- Manual Control [disabled / enabled]: enables o disables the “Manual Control” tab on the left menu. See section 2.6 for more details.
- Heartbeat (Periodic Alive Notification) [disabled / enabled]: this parameter 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).

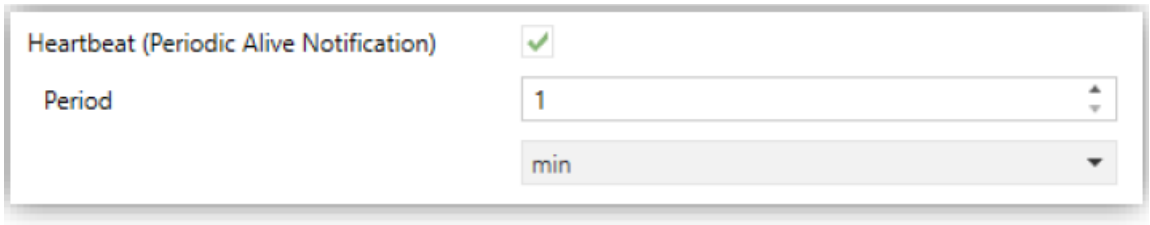

Figure 2. Heartbeat (Periodical Alive Notification).

  - **Note:** The first sending after download or bus failure takes place with a delay of up to 255 seconds, to prevent bus overload. The following sendings match the period set.
- Device Recovery Objects (Send 0 and 1): [disabled / enabled]: this parameter lets the integrator activate two new communication objects (“[Heatbeat] Device Recovery”), which will be sent to the KNX bus with values “0” and “1” respectively whenever the device begins operation (for example, after a bus power failure). It is possible to parameterize a certain delay [0…255] to this sending.

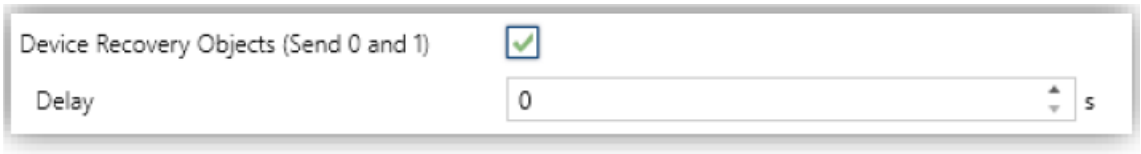

Figure 3. Device Recovery Objects

  - **Note:** after download or bus failure, the sending takes place with a delay of up to 6,35 seconds plus the parameterized delay, to prevent bus overload.
- Show Relay Switches Counter Objects [disabled / enabled]: enables two communication objects to keep track of the number of switches performed by each of the relays (“[Relay X] Number of Switches”) and the maximum number of switches carried out in a minute (“[Relay X] Maximum Switches per Minute”).

OUTPUTS
MAXinBOX 24 v2 / MAXinBOX 20 / MAXinBOX 16 v4 / MAXinBOX 12 / MAXinBOX 8 v4 actuator incorporates 24 / 20 / 16 / 12 / 8 relay outputs, which can be configured as:

- Individual binary outputs, which allow independent control of loads (it is possible to control up to 24 / 20 / 16 / 12 / 8 different loads, respectively).
- Shutter channels, which allow controlling the motion of shutters or blinds (it is possible to control up to 12 / 10 / 8 / 6 / 4 independent shutter channels, respectively).

- Fan Coil modules, which allow the control of the fan and the valve of two-pipe fan coil units (it is possible to control up to 6 / 5 / 4 / 3 / 2 independent fan coil blocks, respectively).

For detailed information about the functionality and the configuration of the related parameters, please refer to the following specific manuals, all of them available within the product section at the Zennio website (www.zennio.com):

- Individual outputs.
- Shutter channels.
- 'Relays' Fan Coil. Note that these devices only support two-pipe fan coils with On/Off valves. Therefore, any references to four-pipe fan coils and 3-point valves do not apply to them.

LOGIC FUNCTIONS

- This module makes it possible to perform numeric and binary operations to incoming values received from the KNX bus and to send the results through other communication objects specifically enabled for this purpose.
- Up to 30 (in MAXinBOX 24 / 20 / 12) / 20 (in MAXinBOX 16 / 8 v4) different and independent functions can be implemented, each of them entirely customizable and consisting of up to 4 consecutive operations each one.
- The execution of each function can depend on a configurable condition, which will be evaluated every time the function is triggered through specific, parameterisable communication objects. The result after executing the operations of the function can also be evaluated according to certain conditions and afterward sent (or not) to the KNX bus, which can be done every time the function is executed, periodically, or only when the result differs from the last one.
- Please refer to the "Logic Functions" user manual, available within the MAXinBOX 24 v2 / MAXinBOX 20 / MAXinBOX 16 v4 / MAXinBOX 12 / MAXinBOX 8 v4 product section at the Zennio homepage, www.zennio.com, for detailed information about the functionality and the configuration of the related parameters.

MASTER LIGHT
Any of the models implements two Master Lights which can be enabled and configured independently.

The Master Light function brings the option to monitor the state of up to 12 light sources (or even more, if the Master Light controls from multiple Zennio devices are linked together) or of any other elements whose state is transmitted through a binary object and, depending on those states, perform a master order every time a certain trigger signal (again, a binary value) is received through a specific object.

Such master order will consist in:

- A general switch-off order, if at least one of the up to twelve status objects is found to be on.
- A courtesy switch-on order, if none of the up to twelve status objects is found to be on.

Note that the above switch-off and switch-on orders are not necessarily a binary value being sent to the bus – it is up to the integrator the decide what to send to the KNX bus in both cases: a shutter order, a thermostat setpoint or mode switch order, a constant value, a scene… Only the trigger object and the twelve status objects are required to be binary (on/off). The most typical scenario for this Master Light control would be a hotel room with a master pushbutton next to the door. When leaving the room, the guest will have the possibility of pressing on the master pushbutton and making all the lamps turn off together. Afterward, back in the room and with all the lamps off, pressing the same master pushbutton will only make a particular lamp turn on (e.g., the closest lamp to the door) – this is the courtesy switch-on. Besides, it is possible to concatenate two or more Master Light modules through a

specific communication object that represents the general state of the light sources of each module. Thereby, it is possible to expand the number of light sources by considering the general state of one module as an additional light source for another.

ETS PARAMETERISATION

Once the Master Light function has been enabled, a specific tab will be included in the menu on the left. This new parameter screen contains the following options:

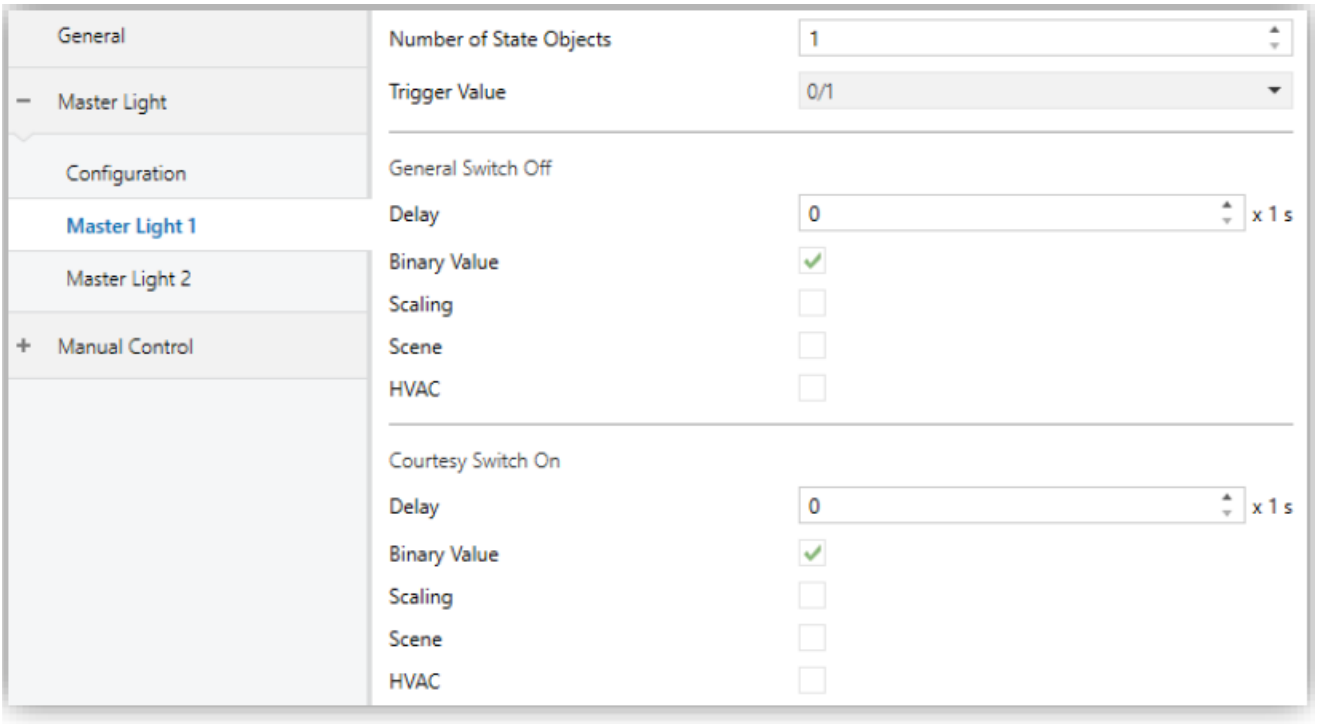

Figure 4. Master Light.

- Number of State Objects [1…12]: defines the number of 1-bit status objects required. These objects are called “[ML] Status Object n.” In addition, the general status object (“[ML] General status”) will always be available in the project topology. It will be sent to the bus with a value of “1” whenever there is at least one of the above state objects with such value. Otherwise (i.e., if none of them has a value of “1”), it will be sent with a value of “0”.
- Trigger Value [0 / 1 / 0/1]: sets the value that will trigger, when received through “[ML] Trigger”, the master action (the general switch-off or the courtesy switch-on).
- **General Switch-Off.**
  - Delay [0…255] [x 1 s]: defines a certain delay (once the trigger has been received) before the execution of the general switch-off. The allowed range is 0 to 255 seconds.
  - Binary Value [disabled/enabled]: if checked, object “[ML] General Switch-off: Binary Object” will be enabled, which will send one “0” whenever the general switch-off takes off.
  - Scaling [disabled/enabled]: if checked, object “[ML] General Switch-off: Scaling” will be enabled, which will send a percentage value (configurable in Value [0…100]) whenever the general switch-off takes off.
  - Scene [disabled/enabled]: if checked, object “[ML] General Switch-off: Scene” will be enabled, which will send a scene run / save order (configurable in Action [Run / Save] and Scene Number [1…64]) whenever the general switch-off takes off
  - HVAC [disabled/enabled]: if checked, object “[ML] General Switch-off: HVAC mode” will be enabled, which will send an HVAC thermostat mode value (configurable in Value [Auto / Comfort / Standby / Economy / Building Protection) whenever the general switch-off takes off.

Note: the above options are not mutually exclusive; it is possible to send values of different natures together.

- **Courtesy Switch-On:**
  - The parameters available here are entirely analogous to those already mentioned for General Switch-Off. However, in this case, the names of the objects start with “[ML] Courtesy Switch-On (…).” On the other hand, sending scene save orders is not possible for the courtesy switch-on (only orders to play scenes are allowed).
  - **Note:** object “[ML] Courtesy Switch-On: Binary Object” sends the value “1” (when the courtesy switch-on takes place), in contrast, to object “[ML] General Switch-Off: Binary Object”, which sends the value “0” (during the general switch-off, as explained above).

SCENE TEMPORISATION

- The scene temporisation allows imposing delays over the scenes of the outputs. These delays are defined in parameters and can be applied to the execution of one or more scenes that may have been configured.
- Please bear in mind that, as multiple delayed scenes can be configured for each output/shutter channel/fan coil module, in case of receiving an order to execute one of them when a previous temporization is still pending for that output/channel/module, such temporization will be interrupted and only the delay and the action of the new scene will be executed.

ETS PARAMETERISATION

Before setting the scene temporisation, it is necessary to have one or more scenes configured in some of the outputs. When entering the Configuration window under Scene Temporization, all configured scenes will be listed, together with a few checkboxes to select which of them need to be temporized, as shown in Figure 5.

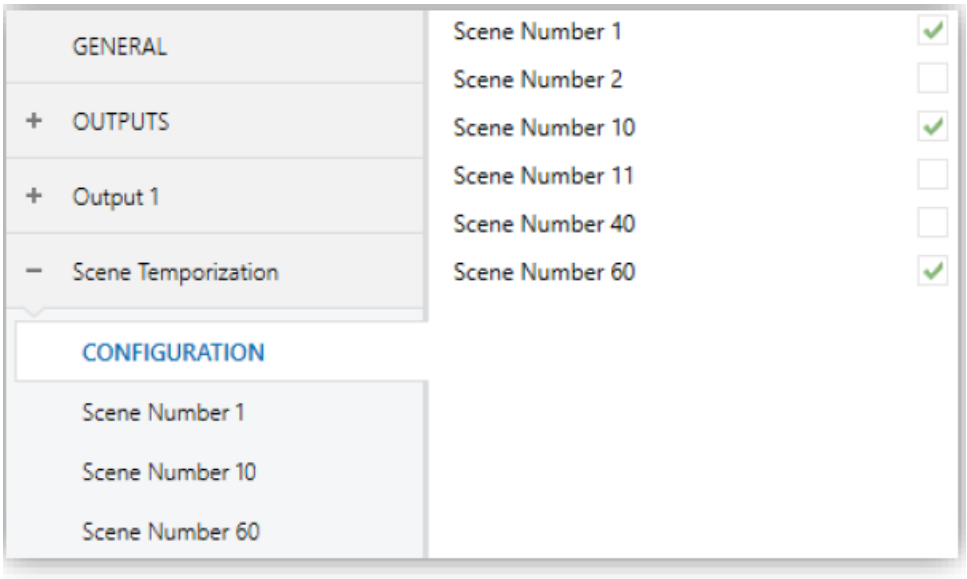

Figure 5. Scene Temporization

Enabling a certain scene number n brings a new tab with such name to the menu on the left, from which it is possible to configure the temporisation of that scene for each of the outputs where it has been configured.

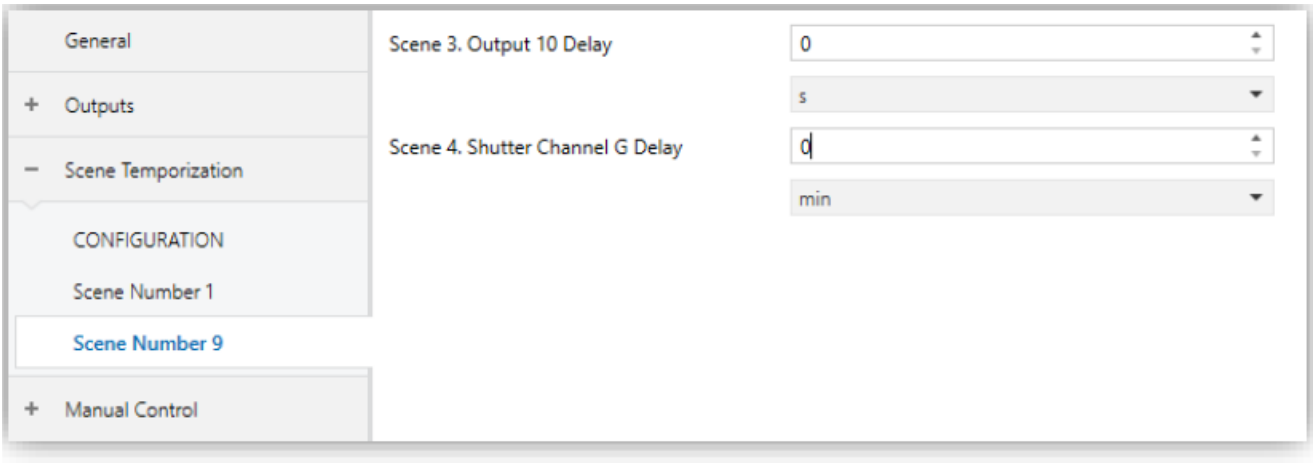

Figure 6. Configuration of Scene Temporization

Therefore, parameter “Scene m. Z Delay” [0…3600 [s] / 0…1440 [min] / 0…24 [h]], defines the delay that will be applied to the action defined in Z for the execution of scene m (where Z may be a specific individual output, shutter channel or fan coil module).

Note:
In the configuration of a scene of an output/shutter channel/fan coil, it is possible to parameterize several scenes with the same scene number. This means that several delay parameters associated with the same output appear in the configuration tab of the delays of that scene. With this parameterization, the behavior will be as follows: the action and delay of the first scene parameterized with the same scene number will always prevail, where the highest priority scene is 1 (the first in the scene configuration tab) and the lowest priority is the last.

MANUAL CONTROL

- MAXinBOX allows manually switching the state of its output relays through the respective pushbuttons on the top of the device. A specific pushbutton is therefore available per output.
- Manual operation can be done in two different ways, named Test On mode (for testing purposes during the configuration of the device) and Test Off mode (for normal use, anytime). Whether both, only one, or none of these modes should be accessible needs to be parameterized in ETS. Moreover, it is possible to enable a specific binary object for locking and unlocking the manual control in runtime.

Notes:

- The Test Off mode will be active (unless it has been disabled by parameter) after a download or a reset with no need for a specific activation – the pushbuttons will respond to user presses from the start.
- On the contrary, switching to the Test On mode (unless disabled by parameter) needs to be done by long pressing the Prog/Test button (for at least three seconds), until the LED is no longer red and turns yellow. From that moment, once the button is released, the LED light will remain green to confirm that the device has switched from the Test Off mode to the Test On mode. After that, an additional press will turn the LED yellow and then off, once the button is released. This way, the device leaves the Test On mode. Note that it will also leave this mode if a bus power failure takes place or if a manual control lock is sent from the KNX bus.

Test Off Mode
Under the Test Off Mode, the outputs can be controlled through both their communication objects and the actual pushbuttons located on the top of the device. When one of these buttons is pressed, the output will behave as if an order had been received through the corresponding communication object, depending on whether the output is

configured as either an individual output, as a shutter channel, or as a fan coil.

- **Individual output:** a simple press (short or long) will make the output switch its on-off state, which will be reported to the KNX bus through the corresponding status object if enabled.
- **Shutter Channel:** when the button is pressed, the device will act over the output according to the length of the button press and the current state.
    - A long press makes the shutter start moving (upwards or downwards, depending on the button being pressed). The LED will light in green until the end of the motion. If the button gets pressed being the shutter already at the top or bottom positions, nothing will happen (the LED will not light).
    - A short press will make the shutter drive stop (if in motion), as it normally does when a step/stop order is received from the KNX bus. In case of not being the shutter in motion, pressing the button does not cause any action, unless slats/lamellas have been parameterized – in such case, a step movement (up/down, depending on the button pressed) will take place. The status objects will be sent to the bus when corresponding.
- Fan Coil module: the behavior will depend on whether a fan-labeled  or a valve-labeled  button is pressed:
    - **Fan:** for this type of button, it must be considered that there are two types of control for the fan speed:
        - **Switching control:** a short or long press will switch the relays to set the selected speed unless it matches the current speed – in such case all the relays will be opened (speed 0). The associated LEDs will indicate the state of the fan speed control relays (on = relay closed; off = relay open).
        - **Accumulation control:** a short or long press switch to the selected speed, closing the relay associated with that speed, and the relays assigned to the lower speeds, unless it matches the current speed – in such case all the relays will be opened (speed 0). The associated LEDs will indicate the state of the fan speed control relays (on = relay closed; off = relay open).
          Note: the behavior of the relays will depend on the parameterization, i.e., on the number of fan speeds, and the delay between switches.
    - **Valve:** a short or long press will switch the current status of the relay and therefore of the valve. The LED will show the state of the relay anytime (on = relay closed; off = relay open).
- **Disabled output:** outputs disabled by parameter will not react to button presses under the Test Off mode.

Regarding the lock, timer, alarm and scene functions, the device will behave under the Test Off mode as usual. Button presses during this mode are entirely analogous to the reception of the corresponding orders from the KNX bus.

Test On Mode
After entering the Test On mode, it will only be possible to control the outputs through the on-board pushbuttons. Orders received through communication objects will be ignored, with independence of the channel or the output they are addressed to. Depending on whether the output has been parameterized as an individual output or as part of a shutter channel, the reactions to the button presses will differ.

- **Individual output:** short or long pressing the button will commute the on-off state of the relay.
- **Shutter channel:** pressing the button will make the shutter drive move upward or downward (depending on the button) until the button is released again, thus ignoring the position of the shutter and the parameterized times. For safety reasons, only one closed relay per shutter channel is allowed.
    - **Note:** after leaving the Test On mode, the status objects will recover the values they had before entering

Test On. As the device is never aware of the actual position of the shutter (as the shutter drive does not provide any feedback), these values may not show the real position. This can be solved by performing a complete move-up or move-down order, or by calibrating the shutter position in the Test On mode until it matches the status objects.

- **Fan Coil module:** the behavior is similar to that of the Test Off mode, although in this case the three fan speeds are supposed available.
- **Disabled output:** short and long presses will switch the state of the corresponding relay. In case this consists in closing the relay, then the remaining relays of its block will open, for safety reasons.

As described previously if the device is in Test On mode, any command sent from the KNX bus to the actuator will not affect the outputs and no status objects will be sent (only periodically timed objects such as Heartbeat, logic functions or master light will continue to be sent to the bus) while Test ON mode is active. However, in the case of the “Alarm” and “Block” objects, although in Test ON mode the actions received by each object are not considered, the evaluation of their status is carried out when exiting this mode so that any change in the alarm status or blocking of the outputs while Test ON mode is active is taken into account when exiting this mode and is updated with the last status detected.

Important:
the device is delivered from the factory with all the outputs disabled and with both manual modes (Test Off and Test On) enabled.

ETS PARAMETERISATION
The Manual Control is configured from the Configuration tab itself under Manual Control. The only two parameters are:

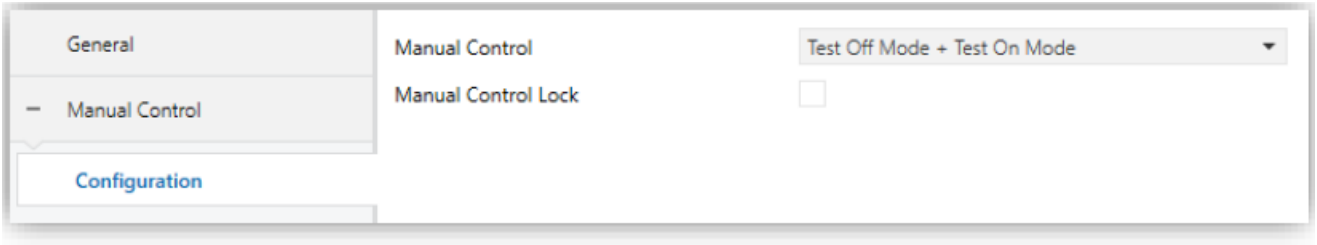

Figure 7. Manual Control

- Manual Control [Disabled / Only Test Off Mode / Only Test On Mode / Test Off Mode + Test On Mode]. Depending on the selection, the device will permit using the manual control under the Test Off, the Test On, or both modes. Note that, as stated before, using the Test Off mode does not require any special action, while switching to the Test On mode does require long pressing the Prog/Test button.
- **Manual Control Lock [enabled / disabled]:** unless the above parameter has been “Disabled,” the Lock Manual Control parameter provides an optional procedure for locking the manual control in runtime. When this checkbox is enabled, the object “Manual Control Lock” turns visible, as well as two more parameters:
  - Value [0 = Lock; 1 = Unlock / 0 = Unlock; 1 = Lock]: defines whether the manual control lock/unlock should take place respectively upon the reception (through the aforementioned object) of values “0” and “1”, or the opposite.
  - Initialization [Unlocked / Locked / Last Value]: sets how the lock state of the manual control should remain after the device start-up (after an ETS download or a bus power failure). “Last Value” (default; on the very first start-up, this will be Unlocked.

COMMUNICATION OBJECTS

“Functional range” shows the values that, with the 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 and the application program itself.

Note:
Some of the numbers in the first column are only applicable to some models.

Number	Size	I/O	Flags	Data type (DPT)	Functional Range	Name	Function
1	1 Bit	O	**C R – T –**	DPT_Trigger	0/1	[Heartbeat] Object to Send ‘1’	Sending of ‘1’ Periodically
2	1 Bit	O	**C R – T –**	DPT_Trigger	0/1	[Heartbeat] Device Recovery	Send 0
3	1 Bit	O	**C R – T –**	DPT_Trigger	0/1	[Heartbeat] Device Recovery	Send 1
4	1 Bit	I	**C – W – –**	DPT_Enable	0/1	Lock Manual Control	0 = Lock; 1 = Unlock
	1 Bit	I	**C – W – –**	DPT_Enable	0/1	Lock Manual Control	0 = Unlock; 1 = Lock
5, 16, 27, 38, 49, 60, 71, 82, 93, 104, 115, 126, 137, 148, 159, 170, 181, 192, 203, 214, 225, 236, 247, 258	1 Byte	I	**C – W – –**	DPT_Scene Control	0-63; 128-191	[Ox] Scenes	0 – 63 (Execute 1 – 64); 128 – 191 (Save 1 – 64)
6, 17, 28, 39, 50, 61, 72, 83, 94, 105, 116, 127, 138, 149, 160, 171, 182, 193, 204, 215, 226, 237, 248, 259	1 Bit	I	**C – W – –**	DPT_Binary Value	0/1	[Ox] On/Off	N.O. (0 = Open Relay ; 1 = Close Relay)
	1 Bit	I	**C – W – –**	DPT_Binary Value	0/1	[Ox] On/Off	N.C. (0 = Close Relay ; 1 = Open Relay)

7, 18, 29, 40, 51, 62, 73, 84, 95, 106, 117, 128, 139, 150, 161, 172, 183, 194, 205, 216, 227, 238, 249, 260	1 Bit	O	**C R – T –**	DPT_BinaryValue	0/1	[Ox] On/Off (Status)	0 = Output Off; 1 = Output On
8, 19, 30, 41, 52, 63, 74, 85, 96, 107, 118, 129, 140, 151, 162, 173, 184, 195, 206, 217, 228, 239, 250, 261	1 Bit	I	**C – W – –**	DPT_Enable	0/1	[Ox] Lock	0 = Unlock; 1 = Lock
9, 20, 31, 42, 53, 64, 75, 86, 97, 108, 119, 130, 141, 152, 163, 174, 185, 196, 207, 218, 229, 240, 251, 262	1 Bit	I	**C – W – –**	DPT_Start	0/1	[Ox] Timer	0 = Switch Off; 1 = Switch On
10, 21, 32, 43, 54, 65, 76, 87, 98, 109, 120, 131, 142, 153, 164, 175, 186, 197, 208, 219, 230, 241, 252, 263	1 Bit	I	**C – W – –**	DPT_Start	0/1	[Ox] Flashing	0 = Stop; 1 = Start
11, 22, 33, 44, 55, 66, 77, 88, 99, 110, 121, 132, 143, 154, 165, 176, 187, 198,	1 Bit	I	**C – W – –**	DPT_Alarm	0/1	[Ox] Alarm	0 = Normal; 1 = Alarm
	1 Bit	I	**C – W – –**	DPT_Alarm	0/1	[Ox] Alarm	0 = Alarm; 1 = Normal

209, 220, 231, 242, 253, 264							
12, 23, 34, 45, 56, 67, 78, 89, 100, 111, 122, 133, 144, 155, 166, 177, 188, 199, 210, 221, 232, 243, 254, 265	1 Bit	I	**C – W – –**	DPT_Ack	0/1	[Ox] Unfreeze Alarm	Alarm = 0 + Unfreeze = 1 => End Alarm
13, 24, 35, 46, 57, 68, 79, 90, 101, 112, 123, 134, 145, 156, 167, 178, 189, 200, 211, 222, 233, 244, 255, 266	1 Bit	O	**C R – T –**	DPT_State	0/1	[Ox] Warning Time (Status)	0 = Normal; 1 = Warning
14, 25, 36, 47, 58, 69, 80, 91, 102, 113, 124, 135, 146, 157, 168, 179, 190, 201, 212, 223, 234, 245, 256, 267	4 Bytes	I/O	**C R W T –**	DPT_LongDeltaTimeSec	-2147483648 – 2147483647	[Ox] Operating Time (s)	Time in Seconds

15, 26, 37, 48, 59, 70, 81, 92, 103, 114, 125, 136, 147, 158, 169, 180, 191, 202, 213, 224, 235, 246, 257, 268	2 Bytes	I/O	**C R W T –**	DPT_TimePeriodHrs	0 – 65535	[Ox] Operating Time (h)	Time in Hours
269	1 Byte	I	**C – W – –**	DPT_SceneControl	0-63; 128-191	[Shutter] Scenes	0 – 63 (Execute 1 – 64); 128 – 191 (Save 1 – 64)
270, 302, 334, 366, 398, 430, 462, 494, 526, 558, 590, 622	1 Bit	I	**C – W – –**	DPT_UpDown	0/1	[Cx] Move	0 = Raise; 1 = Lower
271, 303, 335, 367, 399, 431, 463, 495, 527, 559, 591, 623	1 Bit	I	**C – W – –**	DPT_Step	0/1	[Cx] Stop/Step	0 = Stop/StepUp; 1 = Stop/StepDown
	1 Bit	I	**C – W – –**	DPT_Trigger	0/1	[Cx] Stop	0 = Stop; 1 = Stop
272, 304, 336, 368, 400, 432, 464, 496, 528, 560, 592, 624	1 Bit	I	**C – W – –**	DPT_Trigger	0/1	[Cx] Switched Control	0, 1 = Up, Down or Stop, Depending on the Last Move
273, 305, 337, 369, 401, 433, 465, 497, 529, 561, 593, 625	1 Bit	I	**C – W – –**	DPT_Trigger	0/1	[Cx] Switched Control Up	0, 1 = Up or Stop, Depending on the Last Move

274, 306, 338, 370, 402, 434, 466, 498, 530, 562, 594, 626	1 Bit	I	**C – W – –**	DPT_Trigger	0/1	[Cx] Switched Control Down	0, 1 = Down or Stop, Depending on the Last Move
275, 307, 339, 371, 403, 435, 467, 499, 531, 563, 595, 627	1 Bit	I	**C – W – –**	DPT_Enable	0/1	[Cx] Lock	0 = Unlock; 1 = Lock
276, 308, 340, 372, 404, 436, 468, 500, 532, 564, 596, 628	1 Byte	I	**C – W – –**	DPT_Scaling	0% – 100%	[Cx] Shutter Positioning	0% = Top; 100% = Bottom

277, 309, 341, 373, 405,								
437, 469, 501, 533, 565, 597, 629	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[Cx] Shutter Position (Status)	0% = Top; 100% = Bottom	
278, 310, 342, 374, 406,								
438, 470, 502, 534, 566, 598, 630	1 Byte	I	**C – W – –**	DPT_Scaling	0% – 100%	[Cx] Slats Positioning	0% = Open; 100% = Closed	
279, 311, 343, 375, 407,								
439, 471, 503, 535, 567, 599, 631	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[Cx] Slats Position (Status)	0% = Open; 100% = Closed	
280, 312, 344, 376, 408,								

440, 472, 504, 536, 568, 600, 632	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[Cx] Rising Relay (Status)	0 = Open; 1 = Closed	
281, 313, 345, 377, 409,								
441, 473, 505, 537, 569, 601, 633	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[Cx] Lowering Relay (Status)	0 = Open; 1 = Closed	
282, 314, 346, 378, 410,								
442, 474, 506, 538, 570, 602, 634	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[Cx] Movement (Status)	0 = Stopped; 1 = Moving	
283, 315, 347, 379, 411,								
443, 475, 507, 539, 571, 603, 635	1 Bit	O	**C R – T –**	DPT_UpDown	0/1	[Cx] Movement Direction (Status)	0 = Upward; 1 = Downward	
284, 316, 348, 380, 412,	1 Bit	I	**C – W – –**	DPT_Switch	0/1	[Cx] Auto: On/Off	0 = On; 1 = Off	
444, 476, 508, 540, 572,	1 Bit	I	**C – W – –**	DPT_Switch	0/1	[Cx] Auto: On/Off	0 = Off; 1 = On	
604, 636								
285, 317, 349, 381, 413,	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[Cx] Auto: On/Off (Status)	0 = On; 1 = Off	
445, 477, 509, 541, 573,	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[Cx] Auto: On/Off (Status)	0 = Off; 1 = On	
605, 637								
286, 318, 350, 382, 414,								

446, 478, 510, 542, 574, 606, 638	1 Bit	I	**C – W – –**	DPT_UpDown	0/1	[Cx] Auto: Move	0 = Raise; 1 = Lower	
287, 319, 351, 383, 415,	1 Bit	I	**C – W – –**	DPT_Step	0/1	[Cx] Auto: Stop/Step	0 = Stop/StepUp; 1 = Stop/StepDown	
447, 479, 511, 543, 575,	1 Bit	I	**C – W – –**	DPT_Trigger	0/1	[Cx] Auto: Stop	0 = Stop; 1 = Stop	
607, 639								
288, 320, 352, 384, 416,								
448, 480, 512, 544, 576, 608, 640	1 Byte	I	**C – W – –**	DPT_Scaling	0% – 100%	[Cx] Auto: Shutter Positioning	0% = Top; 100% = Bottom	
289, 321, 353, 385, 417,								
449, 481, 513, 545, 577, 609, 641	1 Byte	I	**C – W – –**	DPT_Scaling	0% – 100%	[Cx] Auto: Slats Positioning	0% = Open; 100% = Closed	
290, 322, 354, 386, 418,	1 Bit	I	**C – W T U**	DPT_Scene_AB	0/1	[Cx] Sunshine/Shadow	0 = Sunshine; 1 = Shadow	
450, 482, 514, 546, 578,	1 Bit	I	**C – W T U**	DPT_Scene_AB	0/1	[Cx] Sunshine/Shadow	0 = Shadow; 1 = Sunshine	
610, 642								
291, 323, 355, 387, 419,	1 Bit	I	**C – W T U**	DPT_Heat_Cool	0/1	[Cx] Cooling/Heating	0 = Cooling; 1 = Heating	
451, 483, 515, 547, 579,	1 Bit	I	**C – W T U**	DPT_Heat_Cool	0/1	[Cx] Cooling/Heating	0 = Heating; 1 = Cooling	
611, 643								

292, 324, 356, 388, 420,	1 Bit	I	**C – W T U**	DPT_Occupancy	0/1	[Cx] Presence/No Presence	0 = No Presence; 1 = Presence

452, 484, 516, 548, 580, 612, 644	1 Bit	I	**C – W T U**	DPT_Occupancy	0/1	[Cx] Presence/No Presence	0 = Presence; 1 = No Presence
293, 294, 325, 326, 357, 358, 389, 390, 421, 422, 453, 454, 485, 486, 517, 518, 549, 550, 581, 582, 613, 614, 645, 646	1 Bit	I	**C – W – –**	DPT_Alarm	0/1	[Cx] Alarm x	0 = No Alarm; 1 = Alarm
	1 Bit	I	**C – W – –**	DPT_Alarm	0/1	[Cx] Alarm x	0 = Alarm; 1 = No Alarm
295, 327, 359, 391, 423, 455, 487, 519, 551, 583, 615, 647	1 Bit	I	**C – W – –**	DPT_Ack	0/1	[Cx] Unfreeze Alarm	Alarm1 = Alarm2 = No Alarm + Unfreeze (1) => End Alarm
296, 328, 360, 392, 424, 456, 488, 520, 552, 584, 616, 648	1 Bit	I	**C – W – –**	DPT_Scene_AB	0/1	[Cx] Move (Reversed)	0 = Lower; 1 = Raise
297, 329, 361, 393, 425, 457, 489, 521, 553, 585, 617, 649	1 Bit	I	**C – W – –**	DPT_Ack	0/1	[Cx] Direct Positioning 1	0 = No Action; 1 = Go to Position
298, 330, 362, 394, 426, 458, 490, 522, 554, 586, 618, 650	1 Bit	I	**C – W – –**	DPT_Ack	0/1	[Cx] Direct Positioning 2	0 = No Action; 1 = Go to Position

299, 331, 363, 395, 427, 459, 491, 523, 555, 587, 619, 651	1 Bit	I	**C – W – –**	DPT_Ack	0/1	[Cx] Direct Positioning 1 (Save)	0 = No Action; 1 = Save Current Position
300, 332, 364, 396, 428, 460, 492, 524, 556, 588, 620, 652	1 Bit	I	**C – W – –**	DPT_Ack	0/1	[Cx] Direct Positioning 2 (Save)	0 = No Action; 1 = Save Current Position
301, 333, 365, 397, 429, 461, 493, 525, 557, 589, 621, 653	1 Bit	O	**C R – T –**	DPT_Binary Value	0/1	[Cx] External Contact – Stop Movement	0 = Open Relay; 1 = Close Relay
654	1 Byte	I	**C – W – –**	DPT_Scene Control	0-63; 128-191	[Fan Coil] Scenes	0 – 63 (Execute 1 – 64); 128 – 191 (Save 1 – 64)
655, 688, 721, 754, 787, 820	1 Bit	I	**C – W – U**	DPT_Switch	0/1	[FCx] On/Off	0 = Off; 1 = On
656, 689, 722, 755, 788, 821	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] On/Off (Status)	0 = Off; 1 = On
657, 690, 723, 756, 789, 822	1 Bit	I	**C – W – U**	DPT_Heat_Cool	0/1	[FCx] Mode	0 = Cool; 1 = Heat
658, 691, 724, 757, 790, 823	1 Bit	O	**C R – T –**	DPT_Heat_Cool	0/1	[FCx] Mode (Status)	0 = Cool; 1 = Heat
659, 692, 725, 758, 791, 824	1 Bit	I	**C – W – U**	DPT_Enable	0/1	[FCx] Fan: Manual/Automatic	0 = Automatic; 1 = Manual
	1 Bit	I	**C – W – U**	DPT_Enable	0/1	[FCx] Fan: Manual/Automatic	0 = Manual; 1 = Automatic

660, 693, 726, 759, 792,	1 Bit	O	**C R – T –**	DPT_Enable	0/1	[FCx] Fan: Manual/Automatic (Status)	0 = Automatic; 1 = Manual
825	1 Bit	O	**C R – T –**	DPT_Enable	0/1	[FCx] Fan: Manual/Automatic (Status)	0 = Manual; 1 = Automatic

661, 694, 727, 760, 793, 826	1 Bit	I	**C – W – U**	DPT_Step	0/1	[FCx] Manual Fan: Step Control	0 = Down; 1 = Up
662, 695, 728, 761, 794, 827	1 Bit	I	**C – W – U**	DPT_Switch	0/1	[FCx] Manual Fan: Speed 0	0 = Off; 1 = On
663, 696, 729, 762, 795, 828	1 Bit	I	**C – W – U**	DPT_Switch	0/1	[FCx] Manual Fan: Speed 1	0 = Off; 1 = On
664, 697, 730, 763, 796, 829	1 Bit	I	**C – W – U**	DPT_Switch	0/1	[FCx] Manual Fan: Speed 2	0 = Off; 1 = On
665, 698, 731, 764, 797, 830	1 Bit	I	**C – W – U**	DPT_Switch	0/1	[FCx] Manual Fan: Speed 3	0 = Off; 1 = On
666, 699, 732, 765, 798, 831	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Fan: Speed 0 (Status)	0 = Off; 1 = On
667, 700, 733, 766, 799, 832	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Fan: Speed 1 (Status)	0 = Off; 1 = On
668, 701, 734, 767, 800, 833	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Fan: Speed 2 (Status)	0 = Off; 1 = On
669, 702, 735, 768, 801, 834	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Fan: Speed 3 (Status)	0 = Off; 1 = On

670, 703, 736, 769, 802, 835	1 Byte	I	**C – W – U**	DPT_Fan_Stage	0 – 255	[FCx] Manual Fan: Enumeration Control	S0 = 0; S1 = 1; S2 = 2; S3 = 3
	1 Byte	I	**C – W – U**	DPT_Fan_Stage	0 – 255	[FCx] Manual Fan: Enumeration Control	S0 = 0; S1 = 1; S2 = 2
	1 Byte	I	**C – W – U**	DPT_Fan_Stage	0 – 255	[FCx] Manual Fan: Enumeration Control	S0 = 0; S1 = 1
671, 704, 737, 770, 803, 836	1 Byte	O	**C R – T –**	DPT_Fan_Stage	0 – 255	[FCx] Fan: Speed Enumeration (Status)	S0 = 0; S1 = 1; S2 = 2; S3 = 3
	1 Byte	O	**C R – T –**	DPT_Fan_Stage	0 – 255	[FCx] Fan: Speed Enumeration (Status)	S0 = 0; S1 = 1; S2 = 2
	1 Byte	O	**C R – T –**	DPT_Fan_Stage	0 – 255	[FCx] Fan: Speed Enumeration (Status)	S0 = 0; S1 = 1
672, 705, 738, 771, 804, 837	1 Byte	I	**C – W – U**	DPT_Scaling	0% – 100%	[FCx] Manual Fan: Percentage Control	S0 = 0%; S1 = 0,4-33,3%; S2 = 33,7-66,7%; S3 = 67,1-100%
	1 Byte	I	**C – W – U**	DPT_Scaling	0% – 100%	[FCx] Manual Fan: Percentage Control	S0 = 0%; S1 = 1-50%; S2 = 51-100%
	1 Byte	I	**C – W – U**	DPT_Scaling	0% – 100%	[FCx] Manual Fan: Percentage Control	S0 = 0%; S1 = 1-100%
673, 706, 739, 772, 805, 838	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[FCx] Fan: Speed Percentage (Status)	S0 = 0%; S1 = 33,3%; S2 = 66,6%; S3 = 100%
	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[FCx] Fan: Speed Percentage (Status)	S0 = 0%; S1 = 1-50%; S2 = 51-100%
	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[FCx] Fan: Speed Percentage (Status)	S0 = 0%; S1 = 1-100%
674, 707, 740, 773, 806, 839	1 Byte	I	**C – W – U**	DPT_Scaling	0% – 100%	[FCx] Cooling Fan: Continuous Control	0 – 100%
	1 Byte	I	**C – W – U**	DPT_Scaling	0% – 100%	[FCx] Cooling Valve: PI Control (Continuous)	0 – 100%

	1 Byte	I	**C – W – U**	DPT_Scaling	0% – 100%	[FCx] Heating Fan: Continuous Control	0 – 100%

675, 708, 741, 774, 807, 840	1 Byte	I	**C – W – U**	DPT_Scaling	0% – 100%	[FCx] Heating Valve: PI Control (Continuous)	0 – 100%
676, 709, 742, 775, 808, 841	1 Bit	I	**C – W – U**	DPT_OpenClose	0/1	[FCx] Cooling Valve: Control Variable (1 bit)	0 = Open Valve; 1 = Close Valve
	1 Bit	I	**C – W – U**	DPT_Switch	0/1	[FCx] Cooling Valve: Control Variable (1 bit)	0 = Close Valve; 1 = Open Valve
677, 710, 743, 776, 809, 842	1 Bit	I	**C – W – U**	DPT_OpenClose	0/1	[FCx] Heating Valve: Control Variable (1 bit)	0 = Open Valve; 1 = Close Valve
	1 Bit	I	**C – W – U**	DPT_Switch	0/1	[FCx] Heating Valve: Control Variable (1 bit)	0 = Close Valve; 1 = Open Valve
678, 711, 744, 777, 810, 843	1 Bit	O	**C R – T –**	DPT_OpenClose	0/1	[FCx] Cooling Valve (Status)	0 = Open; 1 = Closed
	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Cooling Valve (Status)	0 = Closed; 1 = Open
	1 Bit	O	**C R – T –**	DPT_OpenClose	0/1	[FCx] Valve (Status)	0 = Open; 1 = Closed
	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Valve (Status)	0 = Closed; 1 = Open
679, 712, 745, 778, 811, 844	1 Bit	O	**C R – T –**	DPT_OpenClose	0/1	[FCx] Heating Valve (Status)	0 = Open; 1 = Closed
	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Heating Valve (Status)	0 = Closed; 1 = Open
680, 713, 746, 779, 812, 845	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Cooling Valve: Anti-Seize Protection (Status)	0 = Not Active; 1 = Active
	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Valve: Anti-Seize Protection (Status)	0 = Not Active; 1 = Active

681, 714, 747, 780, 813, 846	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[FCx] Heating Valve: Anti-Seize Protection (Status)	0 = Not Active; 1 = Active
682, 715, 748, 781, 814, 847	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[FCx] Valve (Status)	0 – 100%
	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[FCx] Cooling Valve (Status)	0 – 100%
683, 716, 749, 782, 815, 848	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[FCx] Heating Valve (Status)	0 – 100%
684, 717, 750, 783, 816, 849	1 Bit	O	**C R – T –**	DPT_Bool	0/1	[FCx] Control Value – Error	0 = No Error; 1 = Error
685, 718, 751, 784, 817, 850	2 Bytes	I	**C – W – U**	DPT_Value_Temp	-273.00º – 670433.28º	[FCx] Ambient Temperature	Ambient Temperature
686, 719, 752, 785, 818, 851	2 Bytes	I	**C – W – U**	DPT_Value_Temp	-273.00º – 670433.28º	[FCx] Setpoint Temperature	Setpoint Temperature
687, 720, 753, 786, 819, 852	2 Bytes	I/O	**C R W T U**	DPT_TimePeriodMin	0 – 65535	[FCx] Duration of Manual Control	0 = Endless; 1 – 1440 min
	2 Bytes	I/O	**C R W T U**	DPT_TimePeriodHrs	0 – 65535	[FCx] Duration of Manual Control	0 = Endless; 1 – 24 h

853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897,	1 Bit	I	**C – W – –**	DPT_Bool	0/1	[LF] (1-Bit) Data Entry x	Binary Data Entry (0/1)

898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916							
917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948	1 Byte	I	**C – W – –**	DPT_Value_1_Ucount	0 – 255	[LF] (1-Byte) Data Entry x	1-Byte Data Entry (0-255)

949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980	2 Bytes	I	**C – W – –**	DPT_Value_2_Ucount	0 – 65535	[LF] (2-Byte) Data Entry x	2-Byte Data Entry
	2 Bytes	I	**C – W – –**	DPT_Value_2_Count	-32768 – 32767	[LF] (2-Byte) Data Entry x	2-Byte Data Entry
	2 Bytes	I	**C – W – –**	9.xxx	-671088.64 – 670433.28	[LF] (2-Byte) Data Entry x	2-Byte Data Entry
981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996	4 Bytes	I	**C – W – –**	DPT_Value_4_Count	-2147483648 – 2147483647	[LF] (4-Byte) Data Entry x	4-Byte Data Entry
997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026	1 Bit	O	**C R – T –**	DPT_Bool	0/1	[LF] Function x – Result	(1-Bit) Boolean
	1 Byte	O	**C R – T –**	DPT_Value_1_Ucount	0 – 255	[LF] Function x – Result	(1-Byte) Unsigned
	2 Bytes	O	**C R – T –**	DPT_Value_2_Ucount	0 – 65535	[LF] Function x – Result	(2-Byte) Unsigned
	4 Bytes	O	**C R – T –**	DPT_Value_4_Count	-2147483648 – 2147483647	[LF] Function x – Result	(4-Byte) Signed
	1 Byte	O	**C R – T –**	DPT_Scaling	0% – 100%	[LF] Function x – Result	(1-Byte) Percentage
	2 Bytes	O	**C R – T –**	DPT_Value_2_Count	-32768 – 32767	[LF] Function x – Result	(2-Byte) Signed
	2 Bytes	O	**C R – T –**	9.xxx	-671088.64 – 670433.28	[LF] Function x – Result	(2-Byte) Float

1027, 1029, 1031, 1033, 1035, 1037, 1039, 1041, 1043, 1045, 1047, 1049, 1051, 1053, 1055, 1057, 1059, 1061, 1063, 1065, 1067, 1069, 1071, 1073	4 Bytes	O	**C R – T –**	DPT_Value_4_Ucount	0 – 4294967295	[Relay x] Number of Switches	Number of Switches
1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074	2 Bytes	O	**C R – T –**	DPT_Value_2_Ucount	0 – 65535	[Relay x] Maximum Switches per Minute	Maximum Switches per Minute
1075, 1097	1 Bit	I	**C – W – –**	DPT_Trigger	0/1	[MLx] Trigger	Trigger the Master Light Function
	1 Bit	I	**C – W – –**	DPT_Ack	0/1	[MLx] Trigger	0 = Nothing; 1 = Trigger the Master Light Function

	1 Bit	I	**C – W – –**	DPT_Ack	0/1	[MLx] Trigger	1 = Nothing; 0 = Trigger the Master Light Function

1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109	1 Bit	I	**C – W – –**	DPT_Switch	0/1	[MLx] Status Object x	Binary Status
1088, 1110	1 Bit	O	**C R – T –**	DPT_Switch	0/1	[MLx] General Status	Binary Status
1089, 1111	1 Bit		**C – – T –**	DPT_Switch	0/1	[MLx] General Switch Off: Binary Object	Switch Off Sending
1090, 1112	1 Byte		**C – – T –**	DPT_Scaling	0% – 100%	[MLx] General Switch Off: Scaling	0-100%
1091, 1113	1 Byte		**C – – T –**	DPT_Scene Control	0-63; 128-191	[MLx] General Switch Off: Scene	Scene Sending
1092, 1114	1 Byte		**C – – T –**	DPT_HVAC Mode	1=Comfort 2= Standby 3=Economy 4=Building Protection	[MLx] General Switch Off: HVAC mode	Auto, Comfort, Standby, Economy, Building Protection
1093, 1115	1 Bit		**C – – T –**	DPT_Switch	0/1	[MLx] Courtesy Switch On Binary Object	Switch On Sending
1094, 1116	1 Byte		**C – – T –**	DPT_Scaling	0% – 100%	[MLx] Courtesy Switch On Scaling	0-100%
1095, 1117	1 Byte		**C – – T –**	DPT_Scene Number	0 – 63	[MLx] Courtesy Switch On Scene	Scene Sending
1096, 1118	1 Byte		**C – – T –**	DPT_HVAC Mode	1=Comfort 2= Standby 3=Economy 4=Building Protection	[MLx] Courtesy Switch On HVAC mode	Auto, Comfort, Standby, Economy, Building Protection

FUNCTIONALITIES PER MODEL

MAXinBOX 24 v2		MAXinBOX 20	MAXinBOX 16 v4	MAXinBOX 12	MAXinBOX 8 v4
Individual outputs	24	20	16	12	8
Shutter channels	12	10	8	6	4
Two-pipe fan coil modules	6	5	4	3	2
Logic functions	30	30	20	30	20
Master light control modules	2	2	2	2	2
Heartbeat	✓	✓	✓	✓	✓
Scenes	✓	✓	✓	✓	✓
Relay switches counter	✓	✓	✓	✓	✓
Manual control	✓	✓	✓	✓	✓
KNX Security	✗	✓	✓	✓	✓

Table 1. Functionalities per model

Join and send us your inquiries about Zennio devices:
https://support.zennio.com.

- **Zennio Avance y Tecnología S.L.**
  C/ Río Jarama, 132. Nave P-8.11 45007 Toledo, Spain.
- **Tel.** +34 925 232 002
- **www.zennio.com**
- **info@zennio.com**.

Documents / Resources

	**Zennio ZIOMB24V2 MAXinBOX Outputs KNX Actuator** [pdf] Owner's Manual ZIOMB24V2 MAXinBOX Outputs KNX Actuator, ZIOMB24V2, MAXinBOX Outputs KNX Actuator, Outputs KNX Actuator, KNX Actuator, Actuator

References

- **Home En | Zennio**
- **Zennio | Technical Support**
- **Zennio | Technical Support**
- **Home En | Zennio**

- Home En | Zennio
- User Manual