QUAD Plus

Analogue/Digital Input Module
for Motion Sensors, Temperature Probes and Binary Inputs

ZNIO-QUADP

Application program version: [1.1]
User manual edition: [1.1]_a

www.zennio.com

CONTENTS

1 INTRODUCTION

1.1 QUAD PLUS

QUAD Plus is an updated, small-size version of the popular QUAD from Zennio. This module incorporates four digital / analogue separate inputs, each configurable as:

- **Binary Input.**

- **Temperature probe**, either models provided by Zennio or other NTC temperature probes from other suppliers, being in that case possible to configure their parameters in ETS.

- **Motion detector.**

Moreover, QUAD Plus implements **four independent thermostats**, which can be enabled and configured separately, as well as the Heartbeat function or periodical "still-alive" notification.

1.2 INSTALLATION

QUAD is connected to the KNX bus through the incorporated terminal connector, while the input lines need to be connected to QUAD Plus through the screw terminal block bundled in the device packaging. Once powered through the KNX bus, the device may be downloaded both an individual address or the application program.

1.- Prog./Test LED.
2.- Prog./Test button.
3.- Inputs.
4.- Optional connector.
5.- KNX bus connector.
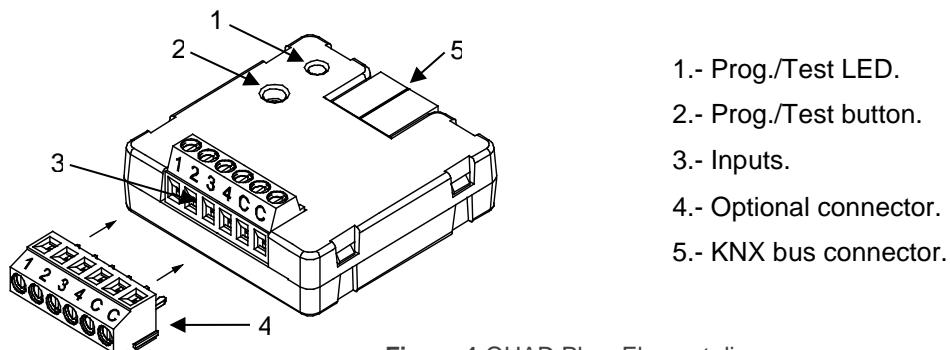
Figure 1 QUAD Plus. Element diagram.

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 (2) light in red. If this button is held at the same time of applying bus power to the device, the device will enter the Safe Mode. In such case, the LED will intermit in red.

- **Slots for the Input Lines** (3): slots for the insertion of the optional inputs terminal block (4). Alternatively, the stripped cables of the input lines can be directly screwed into the slots. Each accessory should be connected to one of the slots labelled 1 to 4 and, on the other hand, to any of the common slots, labelled as "C".

To obtain further information about the technical features of QUAD Plus and on security and installation procedures, please refer to the **Datasheet** of the device, bundled with the original packaging and also available at the Zennio website, http://www.zennio.com.

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.
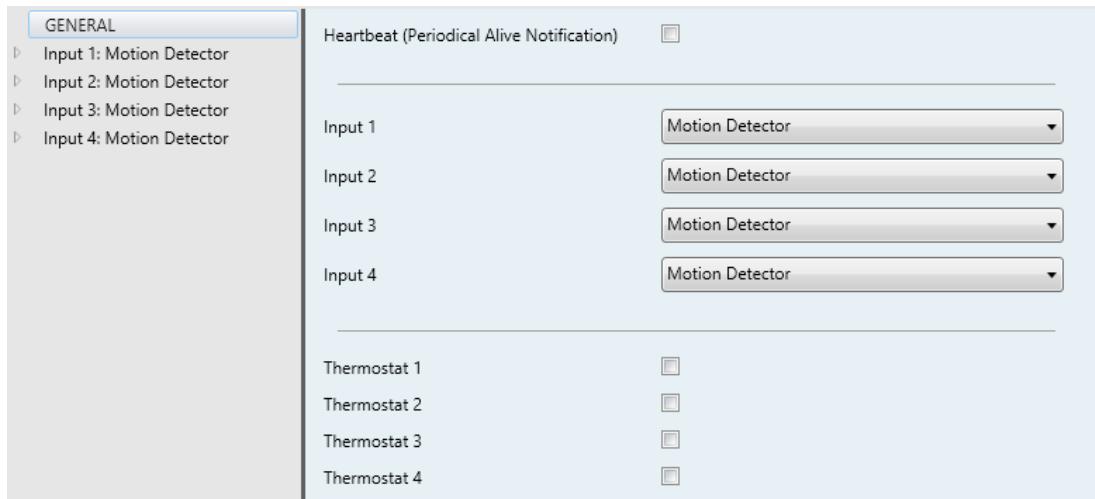
Figure 2 General.

- **Heartbeat (Periodical Alive Notification)**: enables the "**[Heartbeat] Object to Send '1'**" one-bit object, which will be sent with a value of "1" and a configurable period to notify that the device is still working (still alive).

- **Input x**: sets the type of input number "x": "Binary Input", "Temperature Probe" or "Motion Detector". If such input is not required, it can be left as "Disabled".

- **Thermostat x**: enables or disables thermostat number "x".

One entry per input or thermostat will be included into the tab tree on the left.

2.2 INPUTS

QUAD Plus incorporates **four analogue/digital inputs**, each configurable as a:

- **Binary input**, for the connection of a pushbutton or a switch/sensor.

- **Temperature probe**, to connect a temperature sensor, either models ZN1AC-NTC68 S/E/F and SQ-AmbienT from Zennio or NTC probes from third parties (the latter requires configuring their parameters in ETS).

- **Motion detector**, to connect a motion detector (models ZN1IO-DETEC-P and ZN1IO-DETEC-X from Zennio).

  Important: *older models of the Zennio motion detector (e.g., ZN1IO-DETEC and ZN1IO-DETEC-N) will not work properly with this device*

2.2.1 BINARY INPUT

Please refer to the specific user manual "**Binary Inputs**", available in the QUAD Plus product section at the Zennio website, http://www.zennio.com.

2.2.2 TEMPERATURE PROBE

Please refer to the specific user manual "**Temperature Probe**", available in the QUAD Plus product section at the Zennio website, http://www.zennio.com.

2.2.3 MOTION DETECTOR

It is possible to connect motion detectors (models **ZN1IO-DETEC-P** and **ZN1IO-DETEC-X** from Zennio) to the input ports of QUAD Plus. This brings the device with the possibility of monitoring motion and presence in the room, as well as the light level. Depending on the detection, different response actions can be parameterised.

Please refer to the "**Motion Detector**" user manual, available under the QUAD Plus product section at the Zennio website (www.zennio.com), for detailed information about the functionality and the configuration of the related parameters.

Notes:

- *The ZN1IO-DETEC-P motion detector is compatible with a variety of Zennio devices. However, depending on the device it is actually being connected to, the functionality may differ slightly. Therefore, please refer specifically to the aforementioned user manual.*

- *Motion detectors with references ZN1IO-DETEC and ZN1IO-DETEC-N are **not compatible** with QUAD Plus (may report inaccurate measurements if connected to this device).*

- *When connected to QUAD Plus, the rear micro-switch of model ZN1IO-DETEC-P should be set to position "**Type B**".*

2.3 THERMOSTATS

QUAD Plus allows independently enabling and configuring **up to four thermostat** functions, with independence of the number of the inputs that have been configured.

Please refer to the specific "**Zennio Thermostat**" user manual available under the QUAD Plus product section at the Zennio homepage (www.zennio.com) for detailed information about the functionality and the configuration of the related parameters.

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	1 Bit		C T - - -	DPT_Trigger	0/1	[Heartbeat] Object to Send '1'	Sending of '1' Periodically
2	1 Byte	I	C - - W -	DPT_SceneControl	0-63; 128-191	[Thermostat] Scene Input	Scene Value
3, 33, 63, 93	2 Bytes	I	C - - W -	DPT_Value_Temp	-273.00 - 670760.00	[Tx] Temperature Source 1	External Sensor Temperature
4, 34, 64, 94	2 Bytes	I	C - - W -	DPT_Value_Temp	-273.00 - 670760.00	[Tx] Temperature Source 2	External Sensor Temperature
5, 35, 65, 95	2 Bytes	O	C T R - -	DPT_Value_Temp	-273.00 - 670760.00	[Tx] Effective Temperature	Effective Control Temperature
6, 36, 66, 96	1 Byte	I	C - - W -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Tx] Special Mode	1-byte HVAC Mode
7, 37, 67, 97	1 Bit	I	C - - W -	DPT_Trigger	0/1	[Tx] Special Mode: comfort	0 = Nothing; 1 = Trigger
7, 37, 67, 97	1 Bit	I	C - - W -	DPT_Switch	0/1	[Tx] Special Mode: comfort	0 = Off; 1 = On
8, 38, 68, 98	1 Bit	I	C - - W -	DPT_Trigger	0/1	[Tx] Special Mode: standby	0 = Nothing; 1 = Trigger
8, 38, 68, 98	1 Bit	I	C - - W -	DPT_Switch	0/1	[Tx] Special Mode: standby	0 = Off; 1 = On
9, 39, 69, 99	1 Bit	I	C - - W -	DPT_Trigger	0/1	[Tx] Special Mode: economy	0 = Nothing; 1 = Trigger
9, 39, 69, 99	1 Bit	I	C - - W -	DPT_Switch	0/1	[Tx] Special Mode: economy	0 = Off; 1 = On
10, 40, 70, 100	1 Bit	I	C - - W -	DPT_Trigger	0/1	[Tx] Special Mode: protection	0 = Nothing; 1 = Trigger
10, 40, 70, 100	1 Bit	I	C - - W -	DPT_Switch	0/1	[Tx] Special Mode: protection	0 = Off; 1 = On
11, 41, 71, 101	1 Bit	I	C - - W -	DPT_Window_Door	0/1	[Tx] Window Status (input)	0 = Closed; 1 = Open
12, 42, 72, 102	1 Bit	I	C - - W -	DPT_Trigger	0/1	[Tx] Comfort Prolongation	0 = Nothing; 1 = Timed Comfort
13, 43, 73, 103	1 Byte	O	C T R - -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Tx] Special Mode Status	1-byte HVAC Mode

14, 44, 74, 104	2 Bytes	I	C - - W -	DPT_Value_Temp	-273.00 - 670760.00	[Tx] Setpoint	Thermostat Setpoint Input
	2 Bytes	I	C - - W -	DPT_Value_Temp	-273.00 - 670760.00	[Tx] Basic Setpoint	Reference Setpoint
15, 45, 75, 105	1 Bit	I	C - - W -	DPT_Step	0/1	[Tx] Setpoint Step	0 = -0.5°C; 1 = +0.5°C
16, 46, 76, 106	2 Bytes	I	C - - W -	DPT_Value_Tempd	-670760.00 - 670760.00	[Tx] Setpoint Offset	Float Offset Value
17, 47, 77, 107	2 Bytes	O	C T R - -	DPT_Value_Temp	-273.00 - 670760.00	[Tx] Setpoint Status	Current Setpoint
18, 48, 78, 108	2 Bytes	O	C T R - -	DPT_Value_Temp	-273.00 - 670760.00	[Tx] Basic Setpoint Status	Current Basic Setpoint
19, 49, 79, 109	2 Bytes	O	C T R - -	DPT_Value_Tempd	-670760.00 - 670760.00	[Tx] Setpoint Offset Status	Current Setpoint Offset
20, 50, 80, 110	1 Bit	I	C - - W -	DPT_Reset	0/1	[Tx] Setpoint Reset	Reset Setpoint to Default
	1 Bit	I	C - - W -	DPT_Reset	0/1	[Tx] Offset Reset	Reset offset
21, 51, 81, 111	1 Bit	I	C - - W -	DPT_Heat_Cool	0/1	[Tx] Mode	0 = Cool; 1 = Heat
22, 52, 82, 112	1 Bit	O	C T R - -	DPT_Heat_Cool	0/1	[Tx] Mode Status	0 = Cool; 1 = Heat
23, 53, 83, 113	1 Bit	I	C - - W -	DPT_Switch	0/1	[Tx] On/Off	0 = Off; 1 = On
24, 54, 84, 114	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] On/Off Status	0 = Off; 1 = On
25, 55, 85, 115	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[Tx] Control Variable (Cool)	PI Control (Continuous)
26, 56, 86, 116	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[Tx] Control Variable (Heat)	PI Control (Continuous)
27, 57, 87, 117	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] Control Variable (Cool)	PI Control (PWM)
	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] Control Variable (Cool)	2-Point Control
28, 58, 88, 118	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] Control Variable (Heat)	2-Point Control
	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] Control Variable (Heat)	PI Control (PWM)
29, 59, 89, 119	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] Additional Cool	Temp >= (Setpoint+Band) => "1"
30, 60, 90, 120	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] Additional Heat	Temp <= (Setpoint-Band) => "1"
31, 61, 91, 121	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] PI State (Cool)	0 = PI signal 0%; 1 = PI signal greater than 0%
32, 62, 92, 122	1 Bit	O	C T R - -	DPT_Switch	0/1	[Tx] PI State (Heat)	0 = PI signal 0%; 1 = PI signal greater than 0%
123, 127, 131, 135	2 Bytes	O	C T R - -	DPT_Value_Temp	-273.00 - 670760.00	[Ix] Current Temperature	Temperature sensor value
124, 128, 132, 136	1 Bit	O	C T R - -	DPT_Alarm	0/1	[Ix] Overcooling	0 = No Alarm; 1 = Alarm
125, 129, 133, 137	1 Bit	O	C T R - -	DPT_Alarm	0/1	[Ix] Overheating	0 = No Alarm; 1 = Alarm
126, 130, 134, 138	1 Bit	O	C T R - -	DPT_Alarm	0/1	[Ix] Probe Error	0 = No Alarm; 1 = Alarm
139, 145, 151, 157	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] Input Lock	1 = Locked; 0 = Unlocked
140, 146, 152, 158	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%) 0x2 (Dec. by 50%) 0x3 (Dec. by 25%) 0x4 (Dec. by 12%) 0x5 (Dec. by 6%) 0x6 (Dec. by 3%) 0x7 (Dec. by 1%) 0x8 (Stop) 0x9 (Inc. by 100%) 0xA (Inc. by 50%) 0xB (Inc. by 25%) 0xC (Inc. by 12%) 0xD (Inc. by 6%) 0xE (Inc. by 3%) 0xF (Inc. by 1%)	[Ix] [Short Press] Brighter	Increase Brightness
4 Bit		**C T - - -**	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 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%) ... 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[Ix] [Short Press] Brighter/Darker	Switch Bright/Dark
1 Bit		**C T - - -**	DPT_Switch	0/1	[Ix] [Short Press] Dimmer ON	Sending of 1 (ON)
1 Bit		**C T - - -**	DPT_Switch	0/1	[Ix] [Short Press] Dimmer OFF	Sending of 0 (OFF)
1 Bit	I	**C T - W -**	DPT_Switch	0/1	[Ix] [Short Press] Dimmer ON/OFF	Switching 0/1

	1 Byte		**C T - - -**	DPT_SceneControl	0-63	[Ix] [Short Press] Run Scene	Sending of 0 - 63
	1 Byte		**C T - - -**	DPT_SceneControl	128-191	[Ix] [Short Press] Save Scene	Sending of 128 - 191
	1 Bit	I/O	**C T R W -**	DPT_Switch	0/1	[Ix] [Switch/Sensor] Edge	Sending of 0 or 1
	1 Byte		**C T - - -**	DPT_Value_1_Ucount	0 - 255	[Ix] [Short Press] Constant Value (Integer)	0 - 255
	1 Byte		**C T - - -**	DPT_Scaling	0% - 100%	[Ix] [Short Press] Constant Value (Percentage)	0% - 100%
	2 Bytes		**C T - - -**	DPT_Value_2_Ucount	0 - 65535	[Ix] [Short Press] Constant Value (Integer)	0 - 65535
	2 Bytes		**C T - - -**	9.xxx	-671088.64 - 670760.96	[Ix] [Short Press] Constant Value (float)	Float value
141, 147, 154, 159	1 Byte	I	**C - - W -**	DPT_Scaling	0% - 100%	[Ix] [Short Press] Shutter Status (input)	0% = Top; 100% = Bottom
	1 Byte	I	**C - - W -**	DPT_Scaling	0% - 100%	[Ix] [Short Press] Dimming Status (input)	0% - 100%
142, 148, 155, 160	1 Bit		**C T - - -**	DPT_Switch	0/1	[Ix] [Long Press] 0	Sending of 0
	1 Bit		**C T - - -**	DPT_Switch	0/1	[Ix] [Long Press] 1	Sending of 1
	1 Bit	I	**C T - W -**	DPT_Switch	0/1	[Ix] [Long Press] 0/1 Switching	Switching 0/1
	1 Bit		**C T - - -**	DPT_UpDown	0/1	[Ix] [Long Press] Move Up Shutter	Sending of 0 (Up)
	1 Bit		**C T - - -**	DPT_UpDown	0/1	[Ix] [Long Press] Move Down Shutter	Sending of 1 (Down)
	1 Bit		**C T - - -**	DPT_UpDown	0/1	[Ix] [Long Press] Move Up/Down Shutter	Switching 0/1 (Up/Down)
	1 Bit		**C T - - -**	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Up Shutter	Sending of 0 (Stop/Step up)
	1 Bit		**C T - - -**	DPT_Step	0/1	[Ix] [Long Press] Stop/Step Down Shutter	Sending of 1 (Stop/Step down)
	1 Bit		**C T - - -**	DPT_Step	0/1	[Ix] [Long 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%) ... 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[Ix] [Long Press] Brighter	Long Pr. -> Brighter; Release -> Stop
	4 Bit		**C T - - -**	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ... 0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)	[Ix] [Long Press] Darker	Long Pr. -> Darker; Release -> Stop
	4 Bit		**C T - - -**	DPT_Control_Dimming	0x0 (Stop) 0x1 (Dec. by 100%) ...	[Ix] [Long Press] Brighter/Darker	Long Pr. -> Brighter/Darker; Release -> Stop

	Size	I/O	Flags	DPT	Values	Function	Description
					0x8 (Stop) 0x9 (Inc. by 100%) ... 0xF (Inc. by 1%)		
	1 Bit		C T - - -	DPT_Switch	0/1	[Ix] [Long Press] Dimmer ON	Sending of 1 (ON)
	1 Bit		C T - - -	DPT_Switch	0/1	[Ix] [Long Press] Dimmer OFF	Sending of 0 (OFF)
	1 Bit	I	C T - W -	DPT_Switch	0/1	[Ix] [Long Press] Dimmer ON/OFF	Switching 0/1
	1 Byte		C T - - -	DPT_SceneControl	0-63	[Ix] [Long Press] Run Scene	Sending of 0 - 63
	1 Byte		C T - - -	DPT_SceneControl	128-191	[Ix] [Long Press] Save Scene	Sending of 128 - 191
	1 Bit	O	C T R - -	DPT_Alarm	0/1	[Ix] [Switch/Sensor] Alarm: Breakdown or sabotage	1 = Alarm; 0 = No Alarm
	2 Bytes		C T - - -	9.xxx	-671088.64 - 670760.96	[Ix] [Long Press] Constant Value (float)	Float value
	2 Bytes		C T - - -	DPT_Value_2_Ucount	0 - 65535	[Ix] [Long Press] Constant Value (Integer)	0 - 65535
	1 Byte		C T - - -	DPT_Scaling	0% - 100%	[Ix] [Long Press] Constant Value (Percentage)	0% - 100%
	1 Byte		C T - - -	DPT_Value_1_Ucount	0 - 255	[Ix] [Long Press] Constant Value (Integer)	0 - 255
143, 149, 156, 161	1 Bit		C T - - -	DPT_Trigger	0/1	[Ix] [Long Press/Release] Stop Shutter	Release -> Stop Shutter
144, 150, 157, 162	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[Ix] [Long Press] Dimming Status (input)	0% - 100%
144, 150, 157, 162	1 Byte	I	C - - W -	DPT_Scaling	0% - 100%	[Ix] [Long Press] Shutter Status (input)	0% = Top; 100% = Bottom
163	1 Byte	I	C - - W -	DPT_SceneControl	0-63	[Motion Detector] Scene Input	Scene Value
164	1 Byte		C T - - -	DPT_SceneControl	0-63	[Motion Detector] Scene Output	Scene Value
165, 194, 223, 252	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[Ix] Luminosity	0-100%
166, 195, 224, 253	1 Bit	O	C T R - -	DPT_Alarm	0/1	[Ix] Open Circuit Error	0 = No Error; 1 = Open Circuit Error
167, 196, 225, 254	1 Bit	O	C T R - -	DPT_Alarm	0/1	[Ix] Short Circuit Error	0 = No Error; 1 = Short Circuit Error
168, 197, 226, 255	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[Ix] Presence State (Scaling)	0-100%
169, 198, 227, 256	1 Byte	O	C T R - -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Ix] Presence State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
170, 199, 228, 257	1 Bit	O	C T R - -	DPT_Occupancy	0/1	[Ix] Presence State (Binary)	Binary Value
170, 199, 228, 257	1 Bit	O	C T R - -	DPT_Trigger	0/1	[Ix] Presence: Slave Output	1 = Motion Detected
171, 200, 229, 258	1 Bit	I	C - - W -	DPT_Window_Door	0/1	[Ix] Presence Trigger	Binary Value to Trigger the Presence Detection
172, 201, 230, 259	1 Bit	I	C - - W -	DPT_Trigger	0/1	[Ix] Presence: Slave Input	0 = Nothing; 1 = Detection from slave device
173, 202, 231, 260	2 Bytes	I	C - - W -	DPT_TimePeriodSec	0-65535	[Ix] Presence: Waiting Time	0-65535 s.
174, 203, 232, 261	2 Bytes	I	C - - W -	DPT_TimePeriodSec	1-65535	[Ix] Presence: Listening Time	1-65535 s.
175, 204, 233, 262	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] Presence: Enable	According to parameters
176, 205, 234, 263	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] Presence: Day/Night	According to parameters

177, 206, 235, 264	1 Bit	O	C T R - -	DPT_Occupancy	0/1	[Ix] Presence: Occupancy State	0 = Not Occupied; 1 = Occupied
178, 207, 236, 265	1 Bit	I	C - - W -	DPT_Trigger	0/1	[Ix] External Motion Detection	0 = Nothing; 1 = Motion detected by an external sensor
179, 208, 237, 266	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[Ix] [C1] Detection State (Scaling)	0-100%
180, 209, 238, 267	1 Byte	O	C T R - -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Ix] [C1] Detection State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
181, 210, 239, 268	1 Bit	O	C T R - -	DPT_Switch	0/1	[Ix] [C1] Detection State (Binary)	Binary Value
182, 211, 240, 269	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] [C1] Enable Channel	According to parameters
183, 212, 241, 270	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] [C1] Force State	0 = No Detection; 1 = Detection
184, 213, 242, 271	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[Ix] [C2] Detection State (Scaling)	0-100%
185, 214, 243, 272	1 Byte	O	C T R - -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Ix] [C2] Detection State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
186, 215, 244, 273	1 Bit	O	C T R - -	DPT_Switch	0/1	[Ix] [C2] Detection State (Binary)	Binary Value
187, 216, 245, 274	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] [C2] Enable Channel	According to parameters
188, 217, 246, 275	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] [C2] Force State	0 = No Detection; 1 = Detection
189, 218, 247, 276	1 Byte	O	C T R - -	DPT_Scaling	0% - 100%	[Ix] [C3] Detection State (Scaling)	0-100%
190, 219, 248, 277	1 Byte	O	C T R - -	DPT_HVACMode	1=Comfort 2=Standby 3=Economy 4=Building Protection	[Ix] [C3] Detection State (HVAC)	Auto, Comfort, Standby, Economy, Building Protection
191, 220, 249, 278	1 Bit	O	C T R - -	DPT_Switch	0/1	[Ix] [C3] Detection State (Binary)	Binary Value
192, 221, 250, 279	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] [C3] Enable Channel	According to parameters
193, 222, 251, 280	1 Bit	I	C - - W -	DPT_Switch	0/1	[Ix] [C3] Force State	0 = No Detection; 1 = Detection