EAE KNX Detector Series
Product Manual XD100

EAE
TECHNOLOGY

PD100 Flush Mount
48083

MD100 Flush Mount
48084

PD100 Surface Mount
48085

MD100 Surface Mount
48086

HD100 Surface Mount only
48108

CD100 Flush/Surface Mount
48058 / 48093

Content

1. General (Common Features)

- Constant light function can be applied in dependence of presence information thanks to integrated brightness sensor and movement sensor. XD100 regulates the ambient brightness to a defined brightness value.

- Lighting can be set to different brightness levels with corridor function based on occasions such as "motion detection, after movement, no action". Stay-on time can be changed the by end user.

- Air-conditioning and ventilation systems can be controlled by independent HVAC channel.

- Presence information can be sent to presence monitoring applications by independent presence channel.

- The EAE KNX Detector series can either be used as a standalone device or master-slave device according to necessity of project.

- XD100 enables fully-automatic and semi-automatic lighting control.

- Test and calibration mode allows for easy installation.

- The device does not require an additional power supply.

NOTE: Device factory default physical address is "15.15.255".

1.1. General (PD-MD)

- PD100 and MD100 KNX Presence/Motion Detector is ideal for interior rooms such as medium to large-size offices, classrooms, conference and meeting rooms. Detectors are available in two models; flush mounted and surface mounted.

1.1.1. Technical Data (PD-MD)

Type of protection	IP 20	EN 60 529
	IP 44 (Optional for Surface Mount only)	
Safety class	II	EN 61 140
Power supply	Voltage	21V… 30V DC, KNX line
	Current consumption	< 10 mA
Application Area		Interior rooms
Sensor Type		Passive infrared
Installation	Location	Ceiling
	Mount Diameter	76 mm
	Recommended height	2,5m - 5m
Detection	PD100 (at height of 2,5 m)	Seated person 6 m
		Walking person 7 m
	PD100 (at height of 3 m)	Seated person 6.5 m
		Walking person 8 m
	MD100 (at height of 2.5 m)	Walking person 9 m
	MD100 (at height of 3 m)	Walking person 11 m
	Angle	360°
	Light level	10 – 1000 lux
Additional channels		Brightness, presence channel, HVAC channel
Parallel operation		Master/Master, Slave/Master
Operating elements	LED (red) and button	For physical address
Temperature range	Ambient	-5° C + 45° C
	Storage	-25° C + 55° C
Dimensions		42.5 x 42,5 x 12 mm
Box	Plastic, polycarbonate, colour white	
CE	In accordance with the EMC guideline and low voltage directives.	

NOTE: Device default physical address is 15.15.255. In order to configure KNX Presence detector, ETS application file ".knxprod" is needed. It's possible to download the file on EAE website. ETS is required for programming the device. Parameter settings and related group addresses can be changed by ETS. Learn more by reading ETS help file.
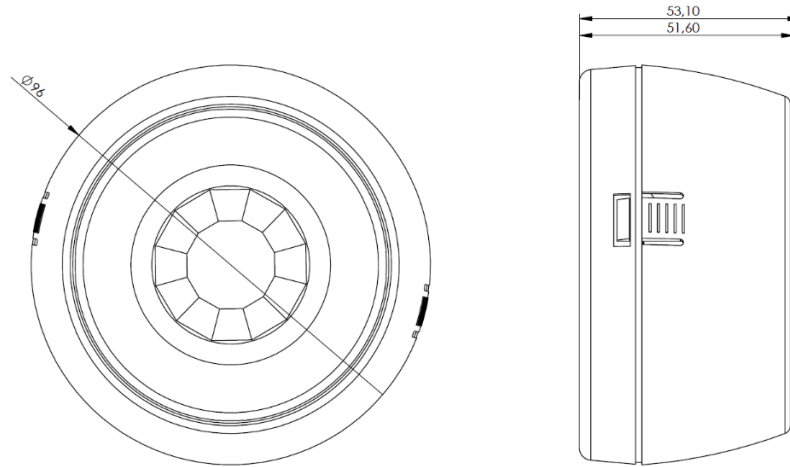
1.1.2. Scale Drawings (PD-MD)

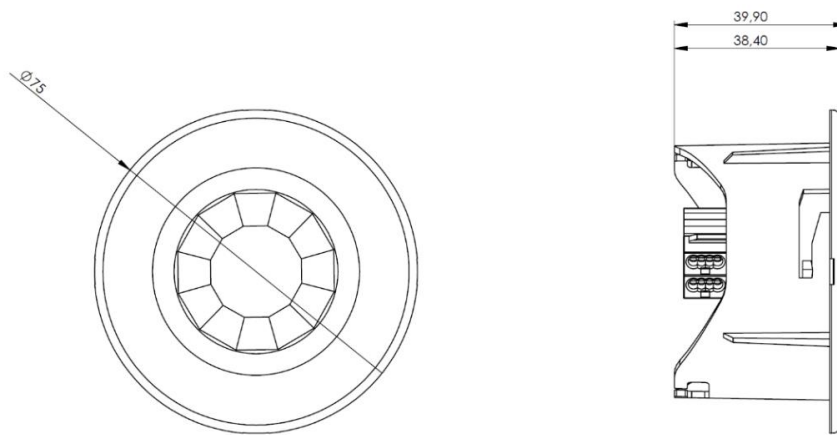*Figure 1: Surface mounted PD100/MD100*

Figure 2: Flush mounted PD100/MD100

1.2. General (CD – Corridor Detector)

- CD100 KNX Corridor Detectors are ideal for corridors, parking buildings. Detector is available in two models; "Flush Mounted" and "Surface Mounted

1.2.1. Technical Data (CD – Corridor Detector)

Type of protection	IP 20	EN 60 529
	IP 44 (Optional for Surface Mount)	
Safety class	II	EN 61 140
Power supply	Voltage	21V… 30V DC, KNX line
	Current consumption	< 10 mA
Application Area		Corridors
Sensor Type		Passive infrared
Installation	Location	Ceiling
	Recommended height	2,5m - 5m
Detection	Diameter (at height of 4,5m)	12 x 4 m (radial walk)
		20 x 6 m (tangent walk)
	Angle	180°
	Light level	10 – 1000 lux
Additional channels		Brightness, presence channel, HVAC channel
Parallel operation		Master/Master, Slave/Master
Operating elements	LED (red) and button	For physical address
Temperature range	Ambient	-5° C + 45° C
	Storage	-25° C + 55° C
Humidity	Max. Humidity	95 % non-condensing
Box	Plastic : Polycarbonate	
Color	White	
CE	In accordance with the EMC guideline and low voltage directives.	

NOTE: Device default physical address is 15.15.255. In order to configure KNX Presence detector, ETS application file ".knxprod" is needed. It's possible to download the file on EAE website. ETS is required for programming the device. Parameter settings and related group addresses can be changed by ETS. Learn more by reading ETS help file.

1.2.2. Scale Drawings (CD – Corridor Detector)

Flush Mounted   Surface Mounted
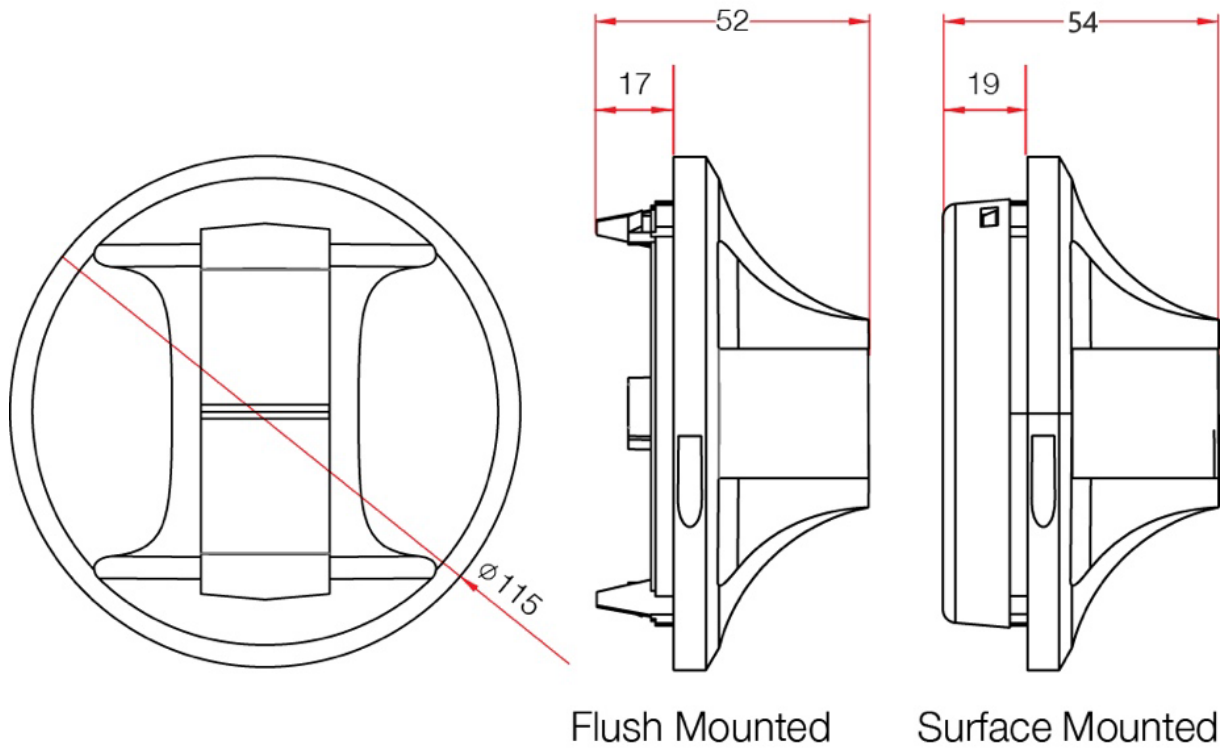
1.3. General (HD – High Bay Detector)

- ▪ HD100 KNX High Bay Motion Detector is ideal for warehouses, industrial areas, conference rooms and sport halls.

1.3.1. Technical Data (HD – High Bay Detector)

Type of protection	IP 20	EN 60 529
	IP 44 (Optional)	
Safety class	II	EN 61 140
Power supply	Voltage	21V… 30V DC, KNX line
	Current consumption	< 10 mA
Application Area		Interior rooms
Sensor Type		Passive infrared
Installation	Location	Ceiling
	Recommended height	7 m – 14 m
Detection	Diameter (at height of 12m)	22 m movement detection
	Area	113 m^2
	Angle	360°
	Light level	10 – 1000 lux
Additional channels		Brightness, presence channel, HVAC channel
Parallel operation		Master/Master, Slave/Master
Operating elements	LED (red) and button	For physical address
Temperature range	Ambient	-5° C + 45° C
	Storage	-25° C + 55° C
Dimensions		See Scale Drawings
Box	Plastic, polycarbonate, colour white	
CE	In accordance with the EMC guideline and low voltage directives.	

NOTE: Device default physical address is 15.15.255. In order to configure KNX Presence detector, ETS application file ".knxprod" is needed. It's possible to download the file on EAE website. ETS is required for programming the device. Parameter settings and related group addresses can be changed by ETS. Learn more by reading ETS help file.

1.3.2. Scale Drawings (HD – High Bay Detector)
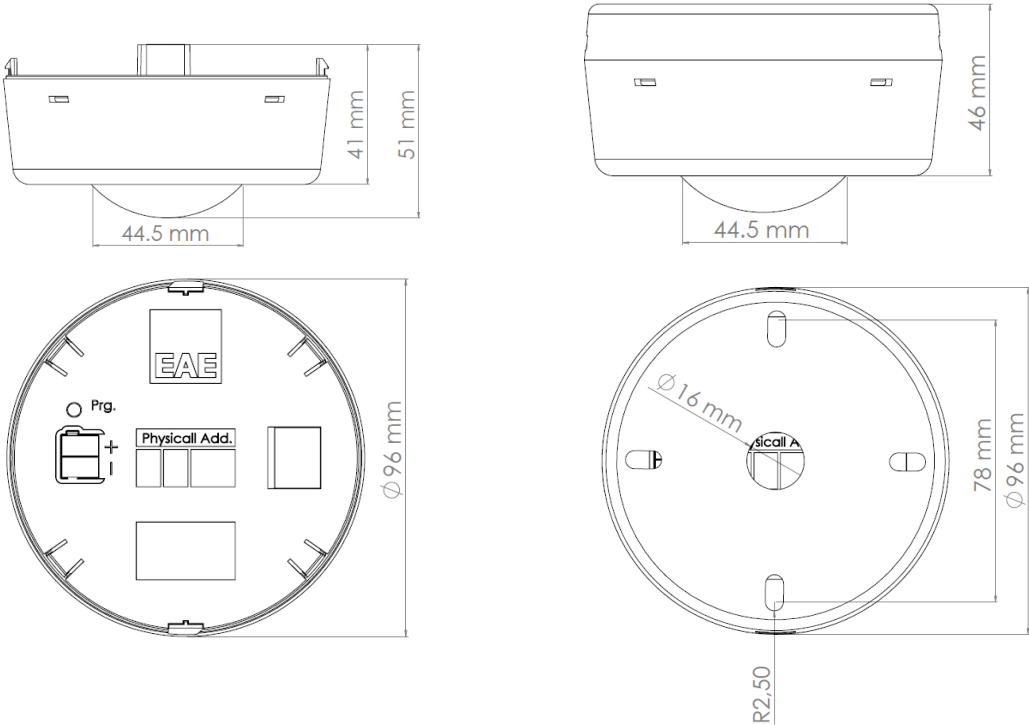
2. Communication Object Table (Common)

Following 43 communication objects are available in xD100 series.

No	Name	Function	DPT Type	Length	Flags
0	General	In operation	DPT 1.002	1 bit	CWT
1	General	Presence slave 1	DPT 1.001	1 bit	CRW
2	General	Presence slave 2	DPT 1.001	1 bit	CRW
3	General	Presence slave 3	DPT 1.001	1 bit	CRW
4	General	Presence slave 4	DPT 1.001	1 bit	CRW
5	Presence	Presence output	DPT 1.001	1 bit	CRT
6	Presence	Disable presence	DPT 1.001	1 bit	CRWT
8	Presence	Stay ON time 10…65535	DPT 7.005	2 byte	CRWT
10	Brightness	Measured value	DPT 9.004	2 byte	CRT
11	Brightness	Calibration value	DPT 9.004	2 byte	CW
12	Constant Light	External brightness	DPT 9.004	2 byte	CRW
13	Constant Light	Setpoint value 10…1000	DPT 9.004	2 byte	CRWT
14	Constant Light	Setpoint for switch on value 10…1000	DPT 9.004	2 byte	CRWT
15	Constant Light	Switch ON delay time 0…30	DPT 5.005	1 byte	CRWT
16	Constant Light	Stay ON time 1…120	DPT 5.005	1 byte	CRWT
17	Group 1	Disable light level control	DPT 1.001	1 bit	CRW
18	Group 1 - output	Switch light	DPT 1.001	1 bit	CRT
19	Group 1 - output	Dimming level	DPT 5.001	1 byte	CRT
20	Group 1 - input	Switch light	DPT 1.001	1 bit	CRW
21	Group 1 – input	Dimming level	DPT 5.001	1 byte	CRW
22	Group 1 – input	Dimming light	DPT 3.007	4 bit	CRW
23	Group 2	Disable light level control	DPT 1.001	1 bit	CRW
24	Group 2 - output	Switch light	DPT 1.001	1 bit	CRT
25	Group 2 - output	Dimming level	DPT 5.001	1 byte	CRT
26	Group 2 - input	Switch light	DPT 1.001	1 bit	CRW
27	Group 2 – input	Dimming level	DPT 5.001	1 byte	CRW
28	Group 2 – input	Dimming light	DPT 3.007	4 bit	CRW
29	Group 3	Disable light level control	DPT 1.001	1 bit	CRW
30	Group 3 - output	Switch light	DPT 1.001	1 bit	CRT
31	Group 3 - output	Dimming level	DPT 5.001	1 byte	CRT
32	Group 3 - input	Switch light	DPT 1.001	1 bit	CRW
33	Group 3 – input	Dimming level	DPT 5.001	1 byte	CRW
34	Group 3 – input	Dimming light	DPT 3.007	4 bit	CRW
35	Group 4	Disable light level control	DPT 1.001	1 bit	CRW
36	Group 4 - output	Switch light	DPT 1.001	1 bit	CRT
37	Group 4 - output	Dimming level	DPT 5.001	1 byte	CRT
38	Group 4 - input	Switch light	DPT 1.001	1 bit	CW
39	Group 4 – input	Dimming level	DPT 5.001	1 byte	CW
40	Group 4 – input	Dimming light	DPT 3.007	4 bit	CW
41	HVAC	Disable HVAC output	DPT 1.001	1 bit	CRW
42	HVAC	Switch ON delay time 0…30	DPT 5.005	1 byte	CRWT
43	HVAC	Lighting stay ON time 1…120	DPT 5.005	1 byte	CRWT
44	HVAC - Output	Switch	DPT 1.001	1 bit	CRT

3. Parameters (Common)

"Parameters" chapter describes ETS parameters of the device. **Default parameters** are written in bold letters.

3.1. General

General Parameters

Movement LED	*show movement*
	off

Movement LED is used to indicate detection If it occurs.

Show movement: Blue color LED will be indicated during detection through inside the lens.

Off: No indication will be shown whether detection is occurred or not.

Detector mode	*master*
	slave

Operating mode of the detector can be changed to "master" or "slave" by this parameter.

Master : Detector will operate as a master or single detector. If there is no slave sensor which is in relation with master, it will operate as a single detector. In master mode, slave sensors are used to extend detection zone. (Presence information) Only the master sends light level telegram and HVAC telegram.

Slave : Slave sensors only deliver presence information to the master in order to extend detection zone of master sensor.

Number of slave	*no slave*
	1

	2
	3
	4

If detector mode is selected as master, parameter will be visible. "Presence slave 1…4" objects will be created according to number selected.

Enable presence	***yes***
	no

Parameter enables/disables presence parameters and objects.

Enable brightness	***no***
	yes

Parameter enables brightness parameters and objects.

Enable HVAC	***no***
	yes

Parameter enables brightness parameters and objects.

Overwrite settings for download	***no***
	yes

This parameter is used to overwrite the relevant values (explained below) during download.

Affected values;

- Calibration values
- Stay on time durations
- Set Lux values

Device alive operation active	*yes*
	no

This object is used to report that device is still alive and connected to KNX line. (Heartbeat) If alive telegram is not received, device may be defective or KNX cable can be disconnected. If parameter is selected "yes", following parameters come up.

In operation bit	***1***
	0

Telegram value can be selected as "1" or "0".

Operation send interval [sec]	*1…*300*…65535*

Telegram value is sent cyclically according to time interval.

Detector sensitivity	***high***
	medium
	low

This parameter is used to select sensitivity of the PIR sensor.

3.2. Presence

Presence Parameters

Stay on time can be changed by bus	*no
	yes

If parameter is selected "yes", "Switch ON delay time" and "Lighting stay ON time" communication objects will be visible.

Type of output	*1 bit
	1-byte percentage
	1-byte value
	scene recall
	16-bit value (decimal)
	RTC operating mode(1 byte)

Desired output type can be selected for presence ON and OFF state.

Output object sends at	*switch on/off
	switch on
	switch off

Output object sending method according to the presence state can be selected.

Value for switch on (1 bit)	*on / off
Value for switch on (1 byte percentage)	0…*100
Value for switch on (1 byte value)	0…*255
Value for switch on (scene recall)	Scene *1…64
Value for switch on (2 byte value)	*0…65535
Value for switch on (RTC Op. Mode)	Auto / *Comfort / Standby / Eco / Frost-Heat Protect

Sending value for switch on cyclic	*no
	yes

Output value can be sent cyclically during Presence state is **ON.**

Stay on time [hh:mm:ss]	*00:00:10…18:12:15

This parameter defines lighting stay-on time (in seconds). Detector sends "on" telegram via presence output object at detected movement and stays "ON" until the adjusted time runs out.

Value for switch off (1 bit)	on / *off
Value for switch off (1 byte percentage)	*0…100
Value for switch off (1 byte value)	*0…255
Value for switch off (scene recall)	Scene *1…64
Value for switch off (2 byte value)	*0…65535
Value for switch off (RTC Op. Mode)	Auto / Comfort / Standby / *Eco / Frost-Heat Protect

Sending value for switch off cyclic	*no
	yes

Output value can be sent cyclically during Presence state is **OFF.**

Cyclical repeating time	10…*30…65535

Presence information will be sent cyclically in selected period via "Presence output".

Break in presence detection[sec]	0…*2…59

Movements detected are ignored during the period selected. This parameter is used to avoid incorrect detections if temperature changes after lights switched "OFF".

Disable presence output	*no
	ON for disabling / OFF for enabling
	OFF for disabling / ON for enabling

This parameter is used to make visible "Disable presence output" object and which telegram to use disable and re-enable presence output object. If any parameter is selected except "no", "Disable presence output" object will be visible.

ON for disabling / OFF for enabling: Presence output is disabled with the value "1" and re-enabled with value "0".

OFF for disabling / ON for enabling: Presence output is disabled with the value "0" and re-enabled with value "1".

Behaviour disabling presence output	*detector sends no telegram
	detector sends switch on
	detector sends switch off

This parameter is used for selecting whether to send a telegram from the "presence output object" before disabling it and, if so, with which value.

Detector sends no telegram: No telegram is sent before disabling presence output object.

Detector sends switch on: Presence output object is set to the value "1" before disabled.

Detector sends switch off: Presence output object is set to the value "0" before disabled.

Behaviour enabling presence output	detector sends no telegram
	***current status**
	detector sends switch on
	detector sends switch off

This parameter is used for selecting whether to send a telegram from the "presence output object" before enabling it and, if so, with which value.

Detector sends no telegram: No telegram is sent before enabling presence output object.

Current status: After enabling the presence output object, detector keeps the current status of presence output object.

Detector sends switch on: After enabling the presence object, it is set to the value "1".

Detector sends switch off: After enabling the presence object, it is set to the value "0".

3.3. Brightness

General
Presence
Brightness
Constant Light Level
Lighting
HVAC

Send brightness on change	50 lux
Cyclical sending of light value	inactive
Calibration	● via object ○ with adjustment factor

Brightness Parameters

Send brightness on change	*inactive*	*40 lux*
	10 lux	***50 lux***
	20 lux	*60*
	30 lux	

This parameter is used to select which level the brightness value last sent must have changed by for the brightness measured to be sent again.

Cyclical sending of light value	***inactive***	*4 min*
	5s	*6 min*
	10s	*8 min*
	20s	*10 min*
	40s	*15 min*
	1 min	*20 min*
	2 min	*30 min*

This parameter is used to adjust cyclical sending period of "Brightness value" object.

Calibration	***via object***
	with calibration factor

This parameter is used select calibration method of the brightness sensor inside the detector. There are two options in order to calibrate the brightness sensor.

Via object: Calibration value is written via "Calibration" object. Brightness value which is measured by a lux meter in the detection range of the sensor must be written to the "calibration" object as a new lux value. Adjustment factor is calculated by detector.

With calibration factor: Detected brightness value is calibrated by calibration factor to current brightness value. Calibration factor only should be written to calibration factor parameters.

Calibration factor (x 0.1)	1…**18**…200

This parameter is used specify the calibration factor of brightness sensor. Any value written outside the permissible range of 1…200 is rejected.

3.4. Constant light level

| General |
| Presence |
| Brightness |
| Constant Light Level |
| Lighting |
| HVAC |

Operating mode	⦿ constant light control ◯ brightness on/off control
Number of lighting groups	4 ▾
Setpoint value as	⦿ parameter ◯ parameter and object
Used brightness	⦿ internal ◯ external
Enable on setpoint	yes
Setpoint value [lux]	500
First dim value	128
Max. dimming value	255
Min. dimming value	0
Maximal variation from setpoint	60 lux ▾
Enable off setpoint	⦿ yes ◯ no
Switch on, if brightness in lower than xx LUX	100
First dim value	128
Max. dimming value	255
Min. dimming value	0
Maximal variation from setpoint	60 lux ▾
Max. step size for dimming	13 (5.0%) ▾
Transmit dimming interval	1s ▾
Start and finish constant light level control	only dimming value telegram ▾
Lighting group 2 offset group1	0
Lighting group 3 offset group1	0
Lighting group 4 offset group1	0
Input dimming mode	⦿ dimming steps ◯ start-stop dimming

Constant Light Level Parameters

Operating mode	*Constant light control* *Brightness on/off control*

This parameter is used to select operating mode of constant light level.

Constant light control: Lighting groups are controlled by "Dimming level" object until reaching the set point value for constant light control. "Switch" object is only used to %100 and %0 percentages when it is needed.

Brightness on/off control: Lighting groups are only controlled by "switch" object according to set point value. If measured brightness value is greater than the set point value, "switch" object is set to the value "0". If measured brightness value is less than the set point value, "switch" object is set to the value "1".

Number of lighting groups	*1
	2
	3
	4

This parameter is used to specify the lighting group count which are controlled by constant light function.

Set point value as	*parameter
	parameter and object

This parameter is used selecting "Set point type".

Parameter: Set point is only specified by parameter on ETS.

Parameter and object: Set point is specified by parameter on ETS, it also can be changed via "set point value" object by bus.

Used brightness	*internal
	external

This parameter is used to select brightness value which will be used as ambient brightness level.

Internal: Built-in brightness sensor will be used

External: Brightness value information will be taken by an external group object.

Enable on setpoint

Enable on setpoint	*yes (always)
Setpoint value [lux]	10…*500…1000 lux
First dim value	0…*128…255
Max. dimming value	0…*255
Min. dimming value	*0…255
Maximal variation from set point value	15…*60…500 lux

This parameter is used adjust hysteresis value for set point value. (-60…set point value…+60)
Dimming level is only sent by "dimming level" object if current brightness value is out of the range specified with maximal variation of set point value.

Enable on setpoint	yes / *no
Switch on, if brightness in lower than xx LUX	10…*100…1000 lux
First dim value	0…*128…255
Max. dimming value	0…*255
Min. dimming value	*0…255
Maximal variation from set point value	15…*60…500 lux

This parameter is used adjust hysteresis value for set point value. (-60…set point value…+60)
Dimming level is only sent by "dimming level" object if current brightness value is out of the range specified with maximal variation of set point value.

Max step size for dimming	0.5%	2.5%
	1%	3%
	1.5%	*5%
	2%	

This parameter is used to select step size dimming for constant light control. "Dimming level" object sends the dimming values (1 byte) with selected step size to reach the appropriate brightness in the room for set point value. (%100, %95, % 90 etc.)

Transmit dimming interval	0.5s	3s
	*1s	4s
	2s	5s

This parameter is used to specify the time interval between two sending dimming value. After sending a dimming value (%60), next dimming value (%55) will be sent after the time interval selected.

Start and finish constant light level control	*only dimming value telegram
	switch on
	switch off
	switch on and switch off

This parameter defines the way in which constant light level control will end.

Only dimming value telegram: If there is sufficient ambient light in a room, constant light level control is ended by only dimming value telegram.

Switch off: If there is not enough ambient light in a room, constant light level control is started by switch (ON) telegram.

Switch off: If there is sufficient ambient light in a room, constant light level control is ended by switch (OFF) telegram.

Switch on and switch off: If there is not enough ambient light in a room, constant light level control is started by switch (ON) telegram and If there is sufficient ambient light in a room, constant light level control is ended by switch (OFF) telegram.

Lighting group X offset to dimming level for group 1	-100…*0…100

This parameter is used to express offset value of additional Lighting Group X (X: 2, 3, and 4) according to "Lighting Group 1". An offset parameter will be created for every additional lighting group.

Input dimming mode	*dimming steps
	start-stop dimming

This parameter is used to select the input dimming type if the lamps are controlling from any other device. Shortly, additional device dimming type must be selected as well as this device.

Upper brightness limit	
Switch off, if brightness in higher than xx LUX	10…*500…1000 lux
Lower brightness limit	
Switch on, if brightness in lower than xx LUX	10…*100…1000 lux

This parameter is shown if **Operating Mode** is selected as **brightness on/off control**. It is used to select LUX limit values to switch the lighting **ON** or **OFF.**

3.5. Lighting

Lighting Parameters

Lighting section consists of presence detection parameters which will be used for constant light level control.

Operation lighting	*automatically 'ON' and 'OFF'
	semi-automatic only 'OFF'

This parameter is used to select operation type of lighting.

Automatically 'ON' and 'OFF': Lighting group is controlled automatically by detector according to presence information. If person is present in the room, "ON" command is sent to the lighting group if no person is present, "OFF" command is sent to the lighting group.

Semi-automatic only 'OFF': Lighting group is controlled semi-automatically according to presence information. The lighting group waits the "ON" command from user in order to light up, it does not light up even if a motion is detected. But, "OFF" command is sent automatically by detector if there is no person in the room.

Switch on delay [sec]	*0…30

This parameter is used to determine "Switch ON delay time". After a movement detection, sensor waits until "Switch ON delay time" is expired and sends the presence information to "Presence output" with a secondary detection.

Lighting Stay on time [min]	*1…120

This parameter is used to determine "Stay ON time" for lighting group. "ON" telegram is sent to the lighting group with a detected motion and lighting group stays "ON" until "Stay ON time" is expired.

ON times change by bus	yes
	*no

This parameter determines whether "Switch ON delay time" and "Stay ON time" can be changed by bus or not.

Yes: "Switch ON delay time" and "Stay ON time" objects are created and possible read/write to these objects.

No: "Switch ON delay time" and "Stay ON time" objects are not visible.

Disable constant light level control	*no
	ON for disabling / OFF for enabling
	OFF for disabling / ON for enabling

This parameter determines the value type for disabling/enabling light level control.

No: Disable constant light level object is not visible.

ON for disabling / OFF for enabling: Light level control is disabled with the value "ON" and enabled with the value "OFF".

OFF for disabling / ON for enabling: Light level control is disabled with the value "OFF" and enabled with the value "ON".

Behavior disable constant light	*detector sends no telegram
	detector sends switch on
	detector sends switch off

This parameter is used for selecting whether a telegram is sent to lighting group before disabling "light level control" and, if so, with which value.

detector sends no telegram: No telegram is sent before disabling "light level control".

detector sends switch on: Lighting group is set to the value "ON" before disabled.

detector sends switch off: Lighting group is set to the value "OFF" before disabled.

Behavior enable constant light	detector sends no telegram
	*current status

This parameter is used for selecting whether a telegram is sent to lighting group after enabling "light level control" and, if so, with which value.

detector sends no telegram: No telegram is sent after enabling "light level control".

current status: After enabling the "light level control", detector keeps the current status of lighting group.

3.6. HVAC

General	Switch on delay [min]	5
Presence	Minimum number of detected motions during delay time	3
Brightness	Motion stay on time [sec]	20
Constant Light Level	Stay on time [min]	15
Lighting	Break in presence detection [sec]	2
HVAC	ON times change by bus	⊙ yes ○ no
	Disable HVAC control	ON for disabling/ OFF for enabling
	Behavior disable HVAC control	detector sends no telegram
	Behavior enable HVAC control	current status

HVAC Parameters

Switch on delay [min]	0…*5…30

This parameter is used to determine "Switch ON delay time". After a movement detection, sensor waits until "Switch ON delay time" is expired and minimum number of movements detected in delay time. Then, sensor sends the presence information to "HVAC - Switch" with a secondary detection.

Min. number of movements detected motions during delay time
1…*3…50

Switch on delay is started after detecting first movement. Detector waits for selected number of movements during "Presence switch ON delay" time in order to send that the presence information is "ON".

Motion stay on time [sec]	5…*20…60

This parameter is used to determine "Motion Stay ON time" for **Switch on delay** function. After first detection, device will be reacted as **Movement** for **20 secs** by default.

Stay on time [min]	*1…120

This parameter is used to determine "Stay ON time" for HVAC output. "ON" telegram is sent to the output with a detected motion and HVAC output stays "ON" until "Stay ON time" is expired.

Break in presence detection [sec]	0…*2…59

Movements detected are ignored during the period selected. This parameter is used to avoid incorrect detections if temperature changes after lights switched "OFF".

ON times change by bus	yes
	***no**

This parameter determines whether "Switch ON delay time" and "Stay ON time" can be changed by bus or not.

Yes: "Switch ON delay time" and "Stay ON time" objects are created and possible read/write to these objects.

No: "Switch ON delay time" and "Stay ON time" objects are not visible.

Light OFF: After enabling the HVAC output, it is set to the value "OFF".

Disable HVAC output	*no*
	ON for disabling / OFF for enabling
	OFF for disabling / ON for enabling

This parameter is used to make visible "Disable HVAC output" object and which telegram to use disable and re-enable HVAC output object. If any parameter is selected except "no", "Disable HVAC output" object will be visible.

ON for disabling / OFF for enabling: HVAC output is disabled with the value "1" and re-enabled with value "0".

OFF for disabling / ON for enabling: HVAC output is disabled with the value "0" and re-enabled with value "1".

Behaviour disabling HVAC output	*detector sends no telegram*
	detector sends switch on
	detector sends switch off

This parameter is used for selecting whether to send a telegram from the "HVAC output object" before disabling it and, if so, with which value.

Detector sends no telegram: No telegram is sent before disabling HVAC output object.

Detector sends switch on: HVAC output object is set to the value "1" before disabled.

Detector sends switch off: HVAC output object is set to the value "0" before disabled.

Behaviour enabling HVAC output	detector sends no telegram
	current status
	detector sends switch on
	detector sends switch off

This parameter is used for selecting whether to send a telegram from the "HVAC output object" before enabling it and, if so, with which value.

Detector sends no telegram: No telegram is sent before enabling HVAC output object.

Current status: After enabling the HVAC output object, detector keeps the current status of HVAC output object.

Detector sends switch on: After enabling the HVAC object, it is set to the value "1".

Detector sends switch off: After enabling the HVAC object, it is set to the value "0".