

USER MANUAL

1 CHANNEL 360° PRESENCE DETECTOR WITH LIGHT REGULATION

PD00A01KNX



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1. Presentation of the 1-channel presence detector with regulator functions of the application software

The application software allows configuring the 1-channel 360° presence detector light regulator.

The main functions are the following:

■ Presence detection

The T1-channel presence detector with light regulation is sensitive to infrared rays associated with heat emitted by moving bodies. It thus detects the presence or absence of persons in a room.

■ Lighting level regulation

Regulation can be active or inactive:

- When regulation is active, the regulates the lighting level in the room according to a set point value in Lux in the presence of persons and according to another set point value in the absence of persons.

- When regulation is inactive, sets the dimming level of the dimmer outputs to a configurable set % value in the presence of persons and to another configurable set value in the absence of persons.

■ Regulation setpoints

When regulation is active, the regulation setpoints can be defined in Lux either via the potentiometer on the device or by ETS.

■ Dimming levels

When regulation is inactive, the dimming levels can be defined in %either via the potentiometer on the device or by ETS.

■ Setpoint modification via pushbutton

This function modifies the regulation set point or the dimming level in the presence of persons via a communicating pushbutton. The new value is then stored.

■ Lighting delay

This function starts a delay at each presence detection; it extends the presence period accordingly. The absence period starts at the end of the delay if no new detection is made during the delay. The delay value can be set by parameterizing or on the device via a potentiometer.

■ Priority

This function allows overriding a regulation set point (active regulation) or a dimming level (inactive regulation).

■ Authorization ON or OFF

This function authorizes or inhibits presence detection (by a clock, for example, at certain periods).

■ Semi-automatic or Automatic mode, override command

In semi-automatic mode, switching to presence and switching the light on is performed by an action on the Derogation input, switching to absence is then controlled by the detector according to the detected presences and to the setting of the cut-off delay. In Automatic mode, a derogation command allows inverting the status of the output to meet the requirements of certain applications (e.g. projection of slides). In case of OFF authorization, the detector behaves as a simple delayed timer when the Derogation input is activated.

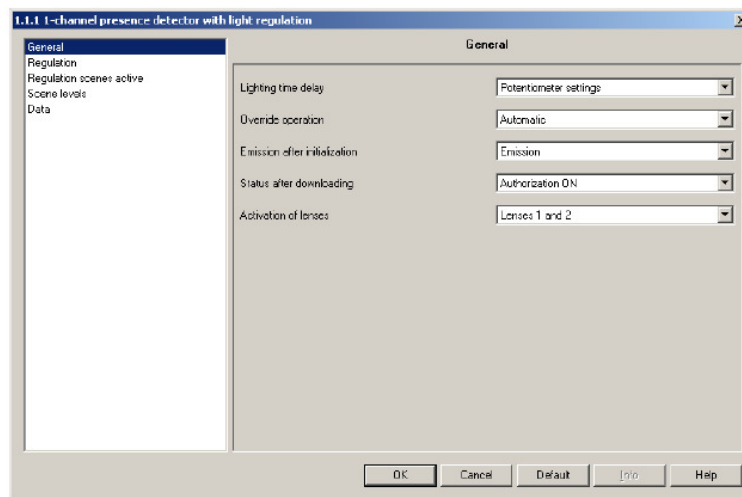
■ Scene

The Scene function allows defining, for a given scene number, regulation setpoints or lighting levels to create ambiances or scenarios (presence scenario, absence scenario, ...).

2. General parameters

The general parameters setting screen allows parameterizing the basic operation of the PD00A01KNX.

→ Parameter Setting screen



Screen 1

→ Parameters

Designation	Description	Values
Lighting time delay	Allows defining whether the delay is to be set via the potentiometer located on the device or by ETS. The delay defines the time during which the presence period is extended after a presence detection. If a presence is detected before the end of the delay, the delay re-starts.	Potentiometer settings, 5 s, 15 s, 30 s, 1 min, 2 min, 3 min, 4 min, 5 min, 10 min, 15 min, 30 min, 1 h, 2 h, 3 h, 4 h, 8 h. Default value: Potentiometer settings.
Override operation	Allows defining the operation of the Derogation command output by a communicating pushbutton. The derogation function is started by the Derogation function.	Automatic, Semi-Automatic Default value: Automatic.
Emission after initialization	Allows defining the behaviour after a bus breakdown, a download or a restart of the application. Allows avoiding to switch the light off by inhibiting the output of an OFF command after the initialization.	Emission, No emission Default value: Emission
Status after downloading	Allows initializing the type of authorization after a download.	Authorization ON, Authorization OFF Default value: Authorization ON
Activation of lenses	Allows selecting the active lenses.	Lenses 1 and 2, Lens 1, Lens 2 Default value: Lenses 1 and 2

3. Function parameters

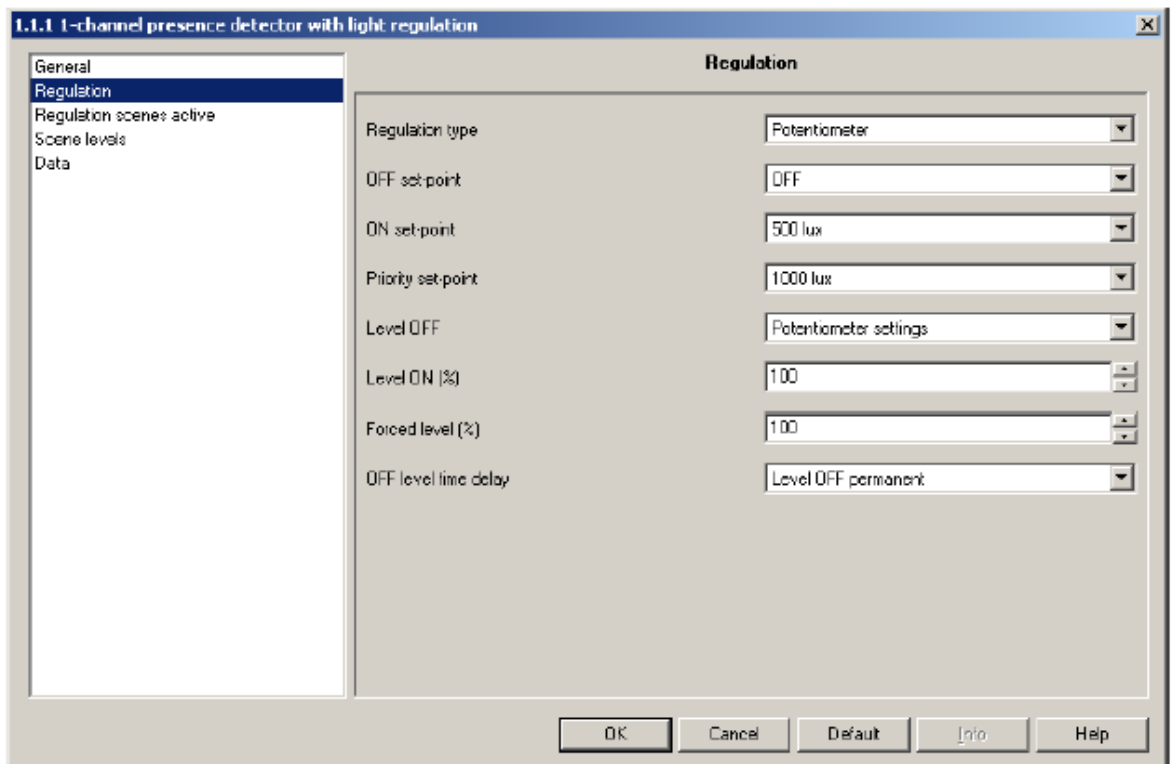
3.1 Objects List

Function \ Object name	ON/OFF	Regulation active	Regulation inactive	Priority	Scene	General objects
ON/OFF	X	X	X			
Status indication ON/OFF	X	X	X			
Relative dimming		X	X		X	
Absolute dimming		X	X		X	
Input absolute dimming		X	X		X	
Priority				X		
Derogation		X	X			
Scene					X	
Authorization						X
Slave detection						X

3.2 Parameterizing of the functions of the presence detector regulator

■ Regulation type

Regulation can be active (regulation of the dimming levels of the outputs according to the brightness) or inactive (fixed dimming levels). The regulation type and the settings can be defined locally on the device via potentiometers or by ETS. The regulation function emits the Absolute dimming object.



Screen 2

→ Parameters

Designation	Description	Values
Regulation type	Allows defining whether the regulation parameters are to be set via potentiometers located on the device or by ETS.	Potentiometer, Active, Not used Default value: Potentiometer If the value Potentiometer is selected, regulation may be active or inactive according to the position of the potentiometers (Mode 1, 2 or 3).

■ Regulation active

If regulation is active, the regulation parameters can be parameterized in Lux.
The regulation setpoint can be received by the Input absolute dimming object or be modified by the Relative dimming object sent by a communicating pushbutton. The ON setpoint can be started by the ON/OFF object.

- Parameter Setting screen: See "Screen 2"
- Parameters

Designation	Description	Values
Set point OFF	Allows setting the regulation setpoint for Absence.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux, 1100 lux, 1200 lux. Default value: OFF
Set point ON	Allows setting the setpoint for Presence.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux, 1100 lux, 1200 lux. Default value: 500 lux.

■ Regulation inactive

If regulation is inactive, the dimming levels of the outputs can be set in %.
The dimming level can be received by the Input absolute dimming object or be modified by the Relative dimming object sent by a communicating pushbutton. The ON setpoint can be started by the ON/OFF object.

- Parameter Setting screen: See "Screen 2"
- Parameters

Designation	Description	Values
Level OFF (%)	Allows defining the dimming level for Absence.	Potentiometer settings, OFF, 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%. Default value: Potentiometer settings
Level ON (%)	Allows defining the dimming level for Presence.	0% to 100% in 1% steps Default value: 100%
OFF level time delay	Allows defining the duration of the OFF level.	Level OFF permanent, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 4 h. Default value: Level OFF permanent

■ Derogation function

The Derogation function is started by the Derogation object, regulation may be active or inactive.

In Automatic mode (with authorization ON):

- Receiving the Derogation ON object allows:
 - Switching to Presence when in Absence
 - Switching to Absence when in Presence
- Receiving the Derogation OFF object allows cancelling a current derogation:
- In Semi-automatic mode (with authorization ON)
 - Only receiving the Derogation ON object allows switching to Presence when in Absence.
 - Receiving the Derogation OFF object switches the product to Absence.

■ Priority

This function allows overriding a setpoint or a lighting level using a communicating pushbutton. The Priority function is started by the Priority object.

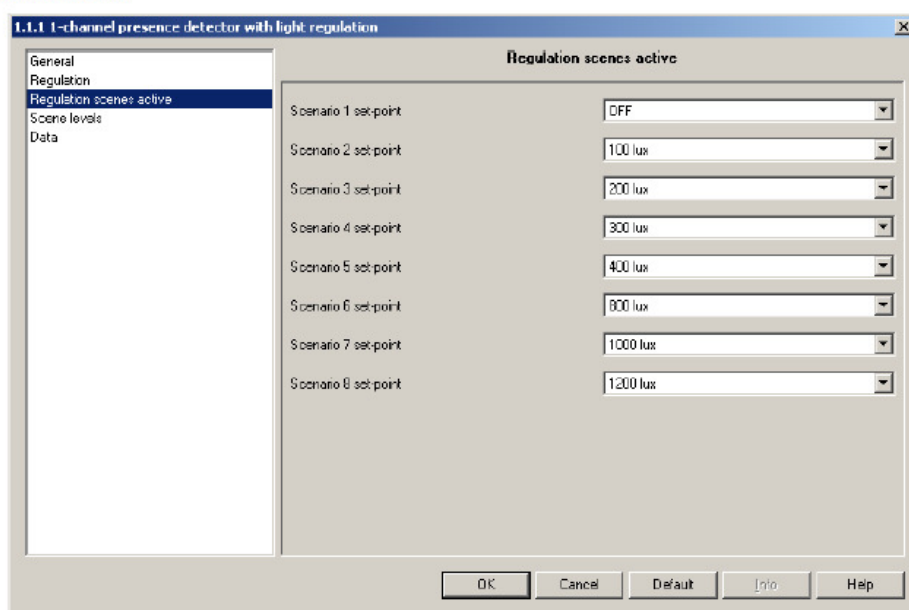
- Parameter Setting screen: See "Screen 2"
- Parameters

Designation	Description	Values
Priority set point	Allows defining the setpoint in case of Priority sent by a communicating pushbutton.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux, 1100 lux, 1200 lux. Default value: 1000 lux.
Forced level (%)	Allows defining the level in case of Priority sent by a communicating pushbutton.	0% to 100% in 1% steps Default value: 100%

■ Scene

The Scene function is started by the Scene number object and allows associating regulation setpoints (active regulation) or lighting levels (inactive regulation) with a scene number.

- Regulation active
- Parameter Setting screen



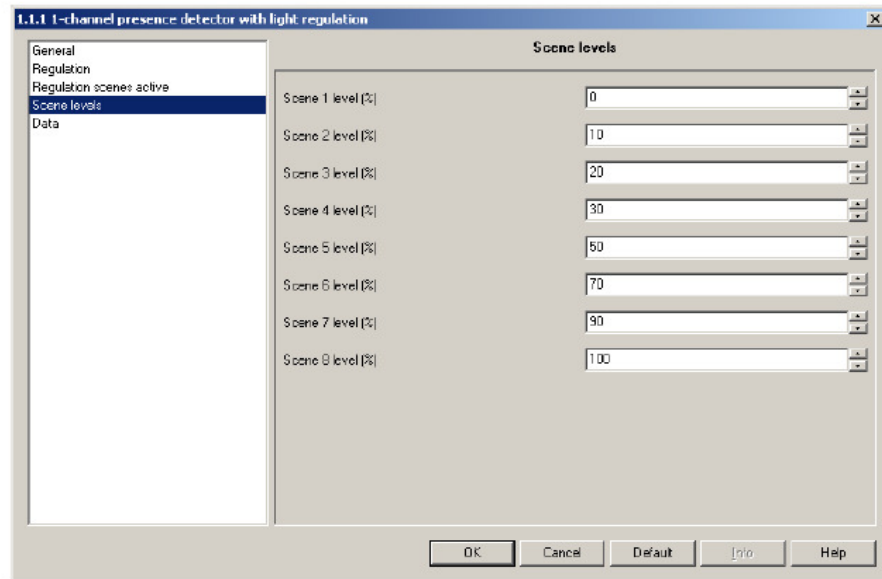
Screen 3

- Parameters

Designation	Description	Values
Scenario 1 set point to Scenario 8 set point	Allows defining a regulation setpoint associated with a scene number.	OFF, 100 lux, 150 lux, 200 lux, 250 lux, 300 lux, 350 lux, 400 lux, 450 lux, 500 lux, 550 lux, 600 lux, 650 lux, 700 lux, 750 lux, 800 lux, 900 lux, 1000 lux, 1100 lux, 1200 lux. Default value: Scene 1: OFF, Scene 2: 100 lux, Scene 3: 200 lux, Scene 4: 300 lux, Scene 5: 400 lux, Scene 6: 800 lux, Scene 7: 1000 lux, Scene 8, 1200 lux.

■ Regulation inactive

→ Parameter Setting screen



Screen 4

→ Parameters

Designation	Description	Values
Scene 1 (%) level to Scene 8 (%) level	Allows defining a lighting level associated with a scene number.	0% to 100% in 1% steps. Default value: Scene 1: 0, Scene 2: 10, Scene 3: 20, Scene 4: 30, Scene 5: 50, Scene 6: 70, Scene 7: 90, Scene 8, 100.

4. Main characteristics

Max. number of group addresses	252
Max. number of links	252
Parameters	29
Objects	11

5. Physical addressing

To perform physical addressing or check for the presence of the bus, press the physical address pushbutton located on BCU (mechanism) of the product. The product remains in physical addressing until the physical address has been transmitted by ETS or until the next time the physical addressing button is pressed.