INDOOR MOTION DETECTOR FOR CORRIDORS, KNX, 360°, 40M, FOR FLUSH-MOUNTING BOX

350-530311

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1. FUNCTIONAL DESCRIPTION

The 360° KNX presence detector is designed for indoor installation on ceilings and use in integrated solutions with other KNX system components. The device detects movement and the presence of persons with the aid of Passive InfraRed technology (PIR). The detector has two independent light control output channels.
Two external low voltage NO push buttons can be connected to the detector. S1 operates channel 1, S2 operates channel 2.
The detector is designed for indoor mounting on ceilings with a flush-mounting box and has a detection area of 40 meter in diameter from a height of 2,5 meter.

The detector is supplied with power by the KNX bus. Communication on the KNX bus follows the KNX principle. This manual describes the configuration of the detector using the ETS 4.0 software or higher.

2. COMMUNICATION OBJECTS

→ input objects
← output objects

Object number & name		Object function	Description
2: chn1-switch	←	Settings for lighting channel 1 ON/OFF	When movement is detected and the ambient light level is below the pre-set lux value, the output sends an ON (or OFF) telegram. If ambient light is sufficient and/or no person is present, an OFF (or ON) telegram is sent once the switch-off delay time has elapsed.
4: chn1-percent	←	Settings for lighting channel 1 Absolute dimming control	When movement is detected, the output sends a pre-set light level telegram and enters into switch-off delay mode. When the switch-off delay time is elapsed, the output sends a pre-set standby brightness telegram and enters into standby mode (if 2-level mode is enabled). The output sends an OFF telegram once the standby delay time has elapsed.
5: chn2-switch	←	Settings for lighting channel 2 ON/OFF	When movement is detected and the ambient light level is below the pre-set lux value, the output sends an ON (or OFF) telegram. If ambient light is sufficient and/or no person is present, an OFF (or ON) telegram is sent once the switch-off delay time has elapsed.
7: chn2-percent	←	Settings for lighting channel 2 Absolute dimming control	When movement is detected, the output sends a pre-set light level telegram and enters into switch-off delay mode. When the switch-off delay time is elapsed, the output sends a pre-set standby brightness telegram and enters into standby mode (if 2-level mode is enabled). The output sends an OFF telegram once the standby delay time has elapsed.
8: s1-switch	→	Channel 1 ON/OFF manual control	Receive an ON/OFF telegram from a push button connected to the bus and control channel 1.
9: s1-percent	→	Channel 1 DIM manual control	Receive a DIMMING telegram from a push button connected to the bus and control channel 1.
10: s2-switch	→	Channel 2 ON/OFF manual control	Receive an ON/OFF telegram from a push button connected to the bus and control channel 2.
11: s2-percent	→	Channel 2 DIM manual control	Receive a DIMMING telegram from a push button connected to the bus and control channel 2.
16: chn1_level2_percent	←	Level 2 of channel 1 standby percentage	When the 2-level function of the output channel is enabled, the detector will switch to standby light control mode after the switch-off delay is elapsed.
17: chn2_level2_percent	←	Level 2 of channel 2 standby percentage	When the 2-level function of the output channel is enabled, the detector will switch to standby light control mode after the switch-off delay is elapsed.

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3. PARAMETERS

To configure the 360° KNX presence detector with the KNX ETS software, you should open the parameter screen of the presence detector. To do this, select the presence detector in the Devices panel of the respective project and click on the Parameter tab.

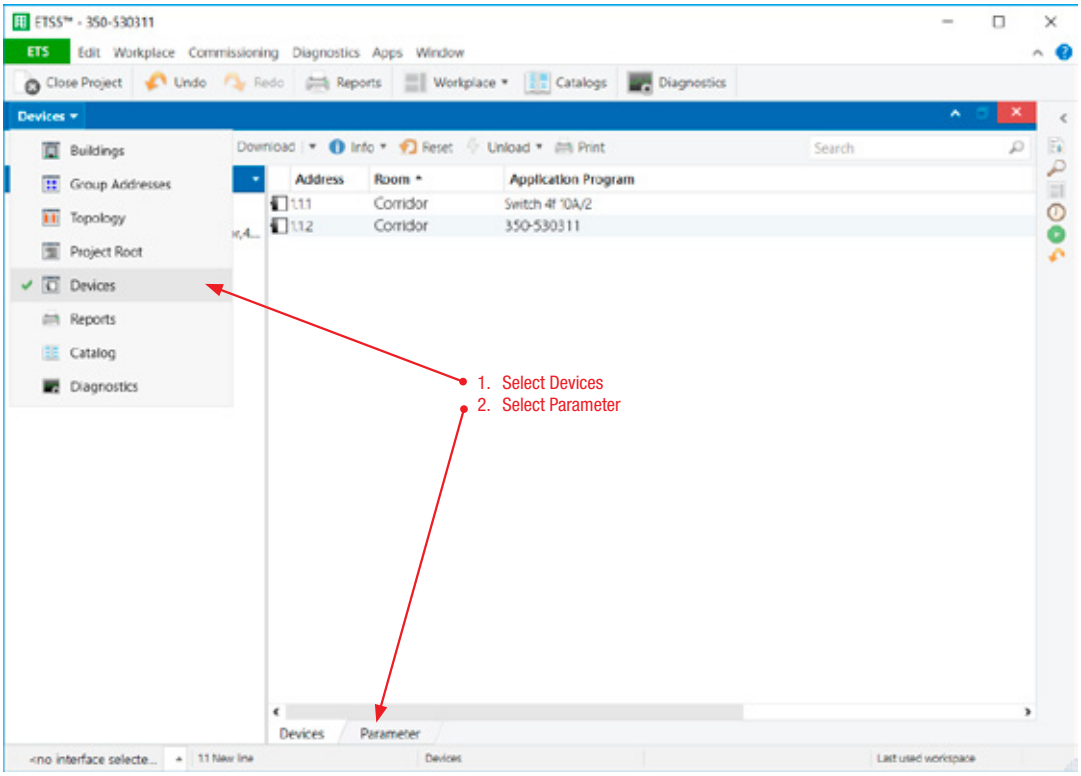

Figure 1: Devices panel

3.1. GENERAL

The detector can be configured as master or slave.

3.1.1. MASTER

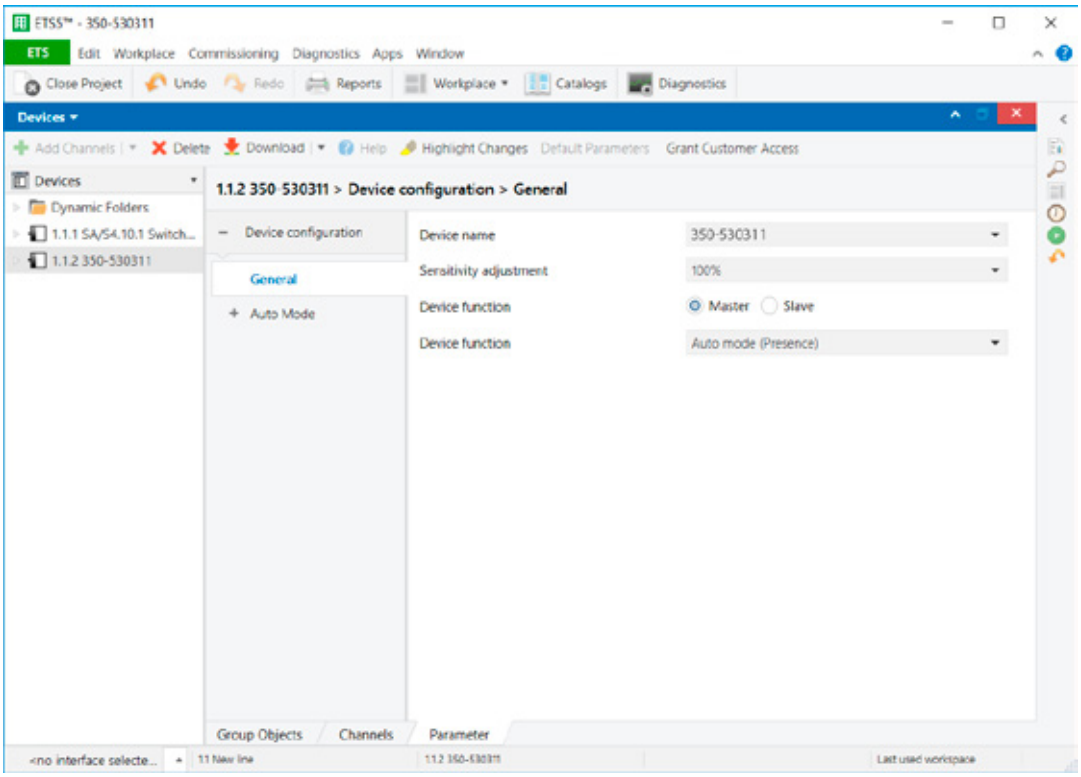

Figure 2: General panel - Master

Parameter	Description	
Device name	With this parameter the name of the device can be set.	
Sensitivity adjustment	With this parameter the sensitivity of the detector can be set. Depending on environmental conditions, a detector with maximal sensitivity can cause false detections. You can select the value via a drop-down list. Default Value: 100%	
	20 % - 100%	Use the drop-down list to set the desired sensitivity of the detector.
Device function (1)	With this parameter the detector can be configured as master or slave device. Default Value: Master	
	Master	When the device type is set to Master, all the functions and parameters of the auto mode are applicable. A master device can receive the triggering signal from one or more slave detectors. However, the signal reception channel can be selected depending on the requirement.
	Slave	When the device type is set to Slave, it is used exclusively to extend the detection area. When the slave detector detects movement, it transmits a signal to the Master for evaluation according to the set parameters.
Device function (2)	With this parameter the detector can be set to Auto mode (Presence), Semi auto mode (Absence) or Test mode. Default value: Auto mode (Presence)	
	Auto mode (Presence)	Under auto mode, the detector acts as a presence detector. The load will turn on automatically when movement is detected and the ambient light level is below the light intensity setting value. When movement is no longer detected and the switch-off delay has expired, the load will turn off automatically.
	Semi auto mode (Absence)	Under semi-auto mode, the detector acts as an absence detector. The load can only be manually switched on by operating the connected external push button. The load will stay on as long as movement is detected. If the detector does not detect movement and the switch-off delay has expired, the load will switch off.
	Test mode	Test mode can be used to test the settings of the motion sensors. In test mode, if movement is detected, the load will switch on for 3sec.

3.1.2. SLAVE

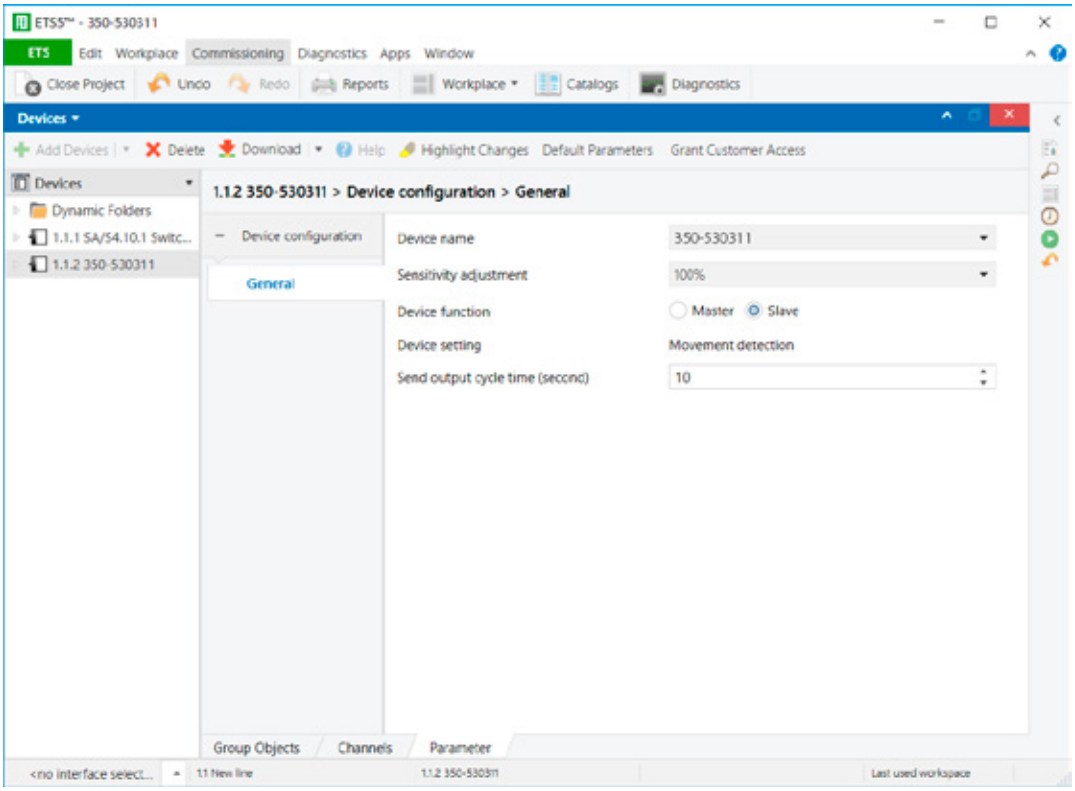

Figure 3: General panel - Slave

Parameter	Description	
Device name	With this parameter the name of the device can be set.	
Sensitivity adjustment	With this parameter the sensitivity of the detector can be set. Depending on environmental conditions, a detector with maximal sensitivity can cause false detections. You can select the value via a drop-down list. Default Value: 100%	
	20 % - 100%	Use the drop-down list to set the desired sensitivity of the detector.
Device function (1)	With this parameter the detector can be configured as master or slave device. Default Value: Master	
	Master	When the device type is set to Master, all the functions and parameters of the auto mode are applicable. A master device can receive the triggering signal from one or more slave detectors. However, the signal reception channel can be selected depending on the requirement.
	Slave	When the device type is set to Slave, it is used exclusively to extend the detection area. When the slave detector detects movement, it transmits a signal to the Master for evaluation according to the set parameters.
Device setting	See description under Slave. Default Value: Movement detection	
	Movement detection	In Slave mode, the detector is used to extend the detection area. When it detects movement, it transmits a signal to the Master.
Send output cycle time (second)	The output cycle time determines how often the slave detector will send a signal to the Master. Default Value: 10	
	1 - 100	The output cycle time can be set from 1 to 100 seconds.

3.2. AUTO MODE

When the Master detector is set to Auto mode (Presence), there are 4 elements that can be configured:
- Channel 1
- Channel 2
- Push button S1
- Push button S2

3.2.1. CHANNEL 1 – CHANNEL 2

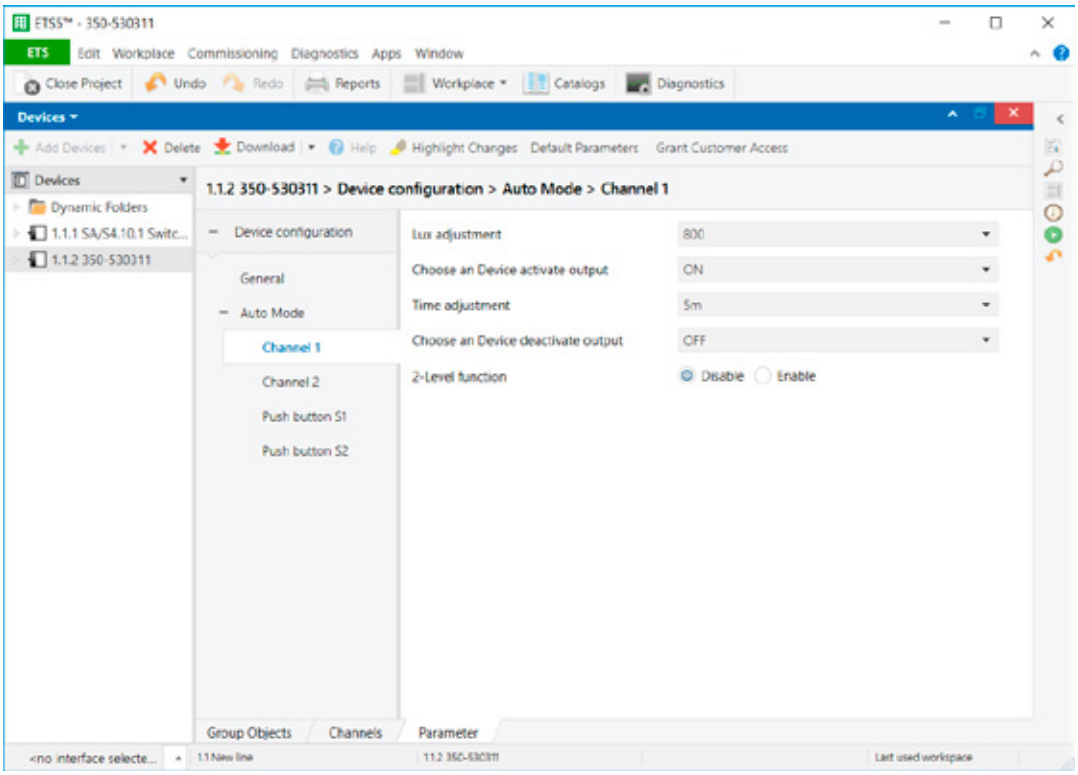

Figure 4: Auto mode - Channel 1

Parameter	Description	
Lux adjustment	Under auto mode, the load will turn on automatically when movement is detected and the ambient light level is below the Lux adjustment value. When movement is no longer detected and the switch-off delay has expired, the load will turn off automatically. You can select the value via a drop-down list. Default Value: 800	
	10 - Infinity	
Choose a device activate output	With this parameter you can configure the device activate output signal. You can select the value via a drop-down list. Default Value: ON	
	ON	When movement is detected, the device output will send an ON-signal to a switch output or a universal dimmer actuator.
	OFF	When movement is detected, the device output will send an OFF-signal to a switch output or a universal dimmer actuator.
	Brightness setting	When movement is detected, the device output will send a configurable dimming value (Brightness setting) between 10% and 100% to a universal dimmer actuator. Default value: 100%
Time adjustment	This parameter is used to set the switch-off delay (Time adjustment). You can select the value via a drop-down list. Default Value: 5m	
	30s – 60m	The Time adjustment can be set from 30 seconds to 60 minutes.
Choose a device deactivate output	With this parameter you can configure the device deactivate output signal. You can select the value via a drop-down list. Default Value: OFF	
	ON	When movement is no longer detected and the switch-off delay has expired, the device output will send an ON-signal to a switch output or a universal dimmer actuator.
	OFF	When movement is no longer detected and the switch-off delay has expired, the device output will send an OFF-signal to a switch output or a universal dimmer actuator.
	Brightness	When movement is no longer detected and the switch-off delay has expired, the device output will send a configurable dimming value
	setting	(Brightness setting) between 10% and 100% to a universal dimmer actuator. Default value: 10%
2-level function	When the 2-level function of the output channel is enabled, the detector will switch to standby light control mode after the switch-off delay is elapsed. Default: Disable	
	Enable	The 2-level function of the output channel is enabled. (See screenshot below.)
	Disable	The 2-level function of the output channel is disabled.

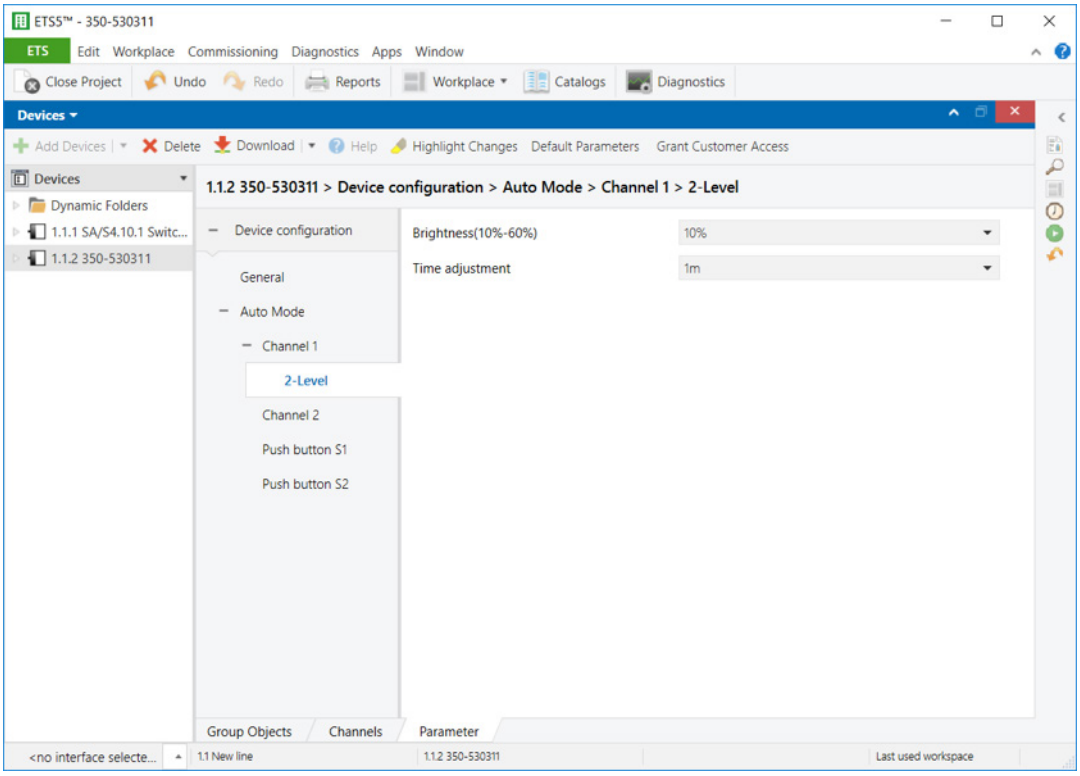

Figure 5: Auto mode - Channel 1 - 2-Level

Parameter	Description	
Brightness (10%-60%)	This parameter is used to set the standby percentage (Brightness). You can select the value via a drop-down list. Default Value: 10%	
	10% – 60%	The Brightness can be set from 10% to 60%.
Time adjustment	This parameter is used to set the standby time (Time adjustment). You can select the value via a drop-down list. Default Value: 1m	
	1m – 60m	The Time adjustment can be set from 1 minute to 60 minutes.

3.2.2. PUSH BUTTON S1 – PUSH BUTTON S2

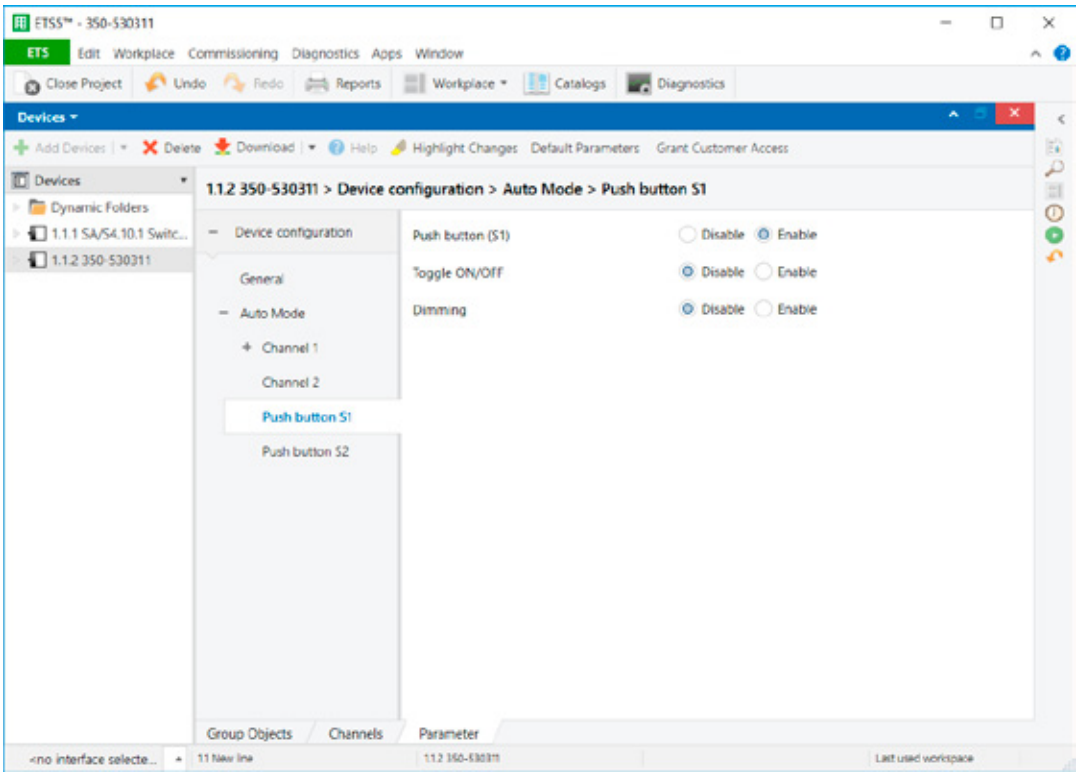

Figure 6: Auto mode – Push button S1

Parameter	Description	
Push button (S1)	When Push button (S1) is enabled, the switch output or universal dimmer actuator can be controlled by a push button. Default: Disable	
	Enable	The switch output or universal dimmer actuator can be controlled by a push button.
	Disable	the switch output or universal dimmer actuator cannot be controlled by a push button.
Toggle ON/OFF	When Toggle ON/OFF is enabled, the switch output or universal dimmer actuator can be switched ON and OFF by a push button. Short press the button once to switch ON the load, and short press it again to switch OFF the load. Default: Disable	
	Enable	The switch output or universal dimmer actuator can be switched ON and OFF by a push button.
	Disable	the switch output or universal dimmer actuator cannot switched ON and OFF by a push button.
Dimming	When Dimming is enabled, the universal dimmer actuator can be dimmed up and down by a push button. Long press the button to dim up the load till 100% and then down to 0% and so on. Long press the button again to dim down the load till 0% and then up to 100%, and so on. Default: Disable	
	Enable	The universal dimmer actuator can be dimmed up and down by a push button.
	Disable	The universal dimmer actuator cannot be dimmed up and down by a push button.

3.3. SEMI AUTO MODE

When the Master detector is set to Semi auto mode (Absence), there are 2 elements that can be configured:
- Channel 1
- Channel 2

3.3.1. CHANNEL 1 – CHANNEL 2

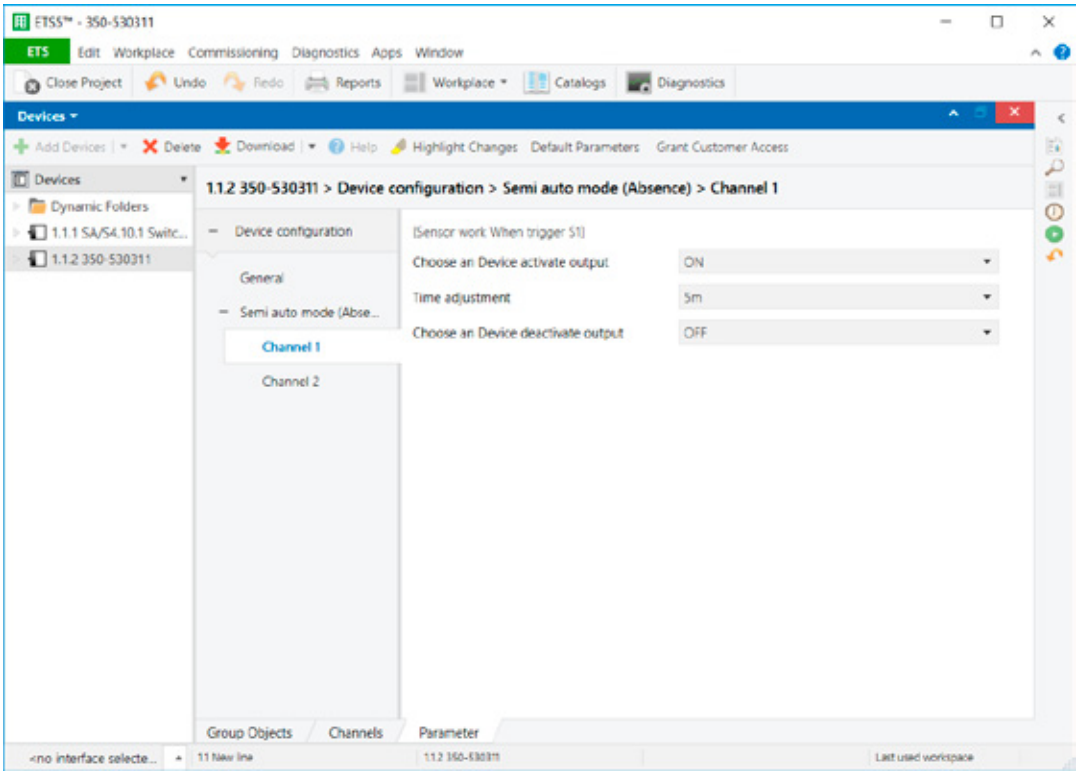

Figure 7: Semi auto mode - Channel 1

Parameter	Description	
Choose a device activate output	With this parameter you can configure the device activate output signal. You can select the value via a drop-down list. Default Value: ON	
	ON	When movement is detected, the device output will send an ON-signal to a switch output or a universal dimmer actuator.
	OFF	When movement is detected, the device output will send an OFF-signal to a switch output or a universal dimmer actuator.
	Brightness setting	When movement is detected, the device output will send a configurable dimming value (Brightness setting) between 10% and 100% to a universal dimmer actuator. Default value: 100%
Time adjustment	This parameter is used to set the switch-off delay (Time adjustment). You can select the value via a drop-down list. Default Value: 5m	
	30s – 60m	The Time adjustment can be set from 30 seconds to 60 minutes.
Choose a device deactivate output	With this parameter you can configure the device deactivate output signal. You can select the value via a drop-down list. Default Value: OFF	
	ON	When movement is no longer detected and the switch-off delay has expired, the device output will send an ON-signal to a switch output or a universal dimmer actuator.
	OFF	When movement is no longer detected and the switch-off delay has expired, the device output will send an OFF-signal to a switch output or a universal dimmer actuator.
	Brightness setting	When movement is no longer detected and the switch-off delay has expired, the device output will send a configurable dimming value (Brightness setting) between 10% and 100% to a universal dimmer actuator. Default value: 10%

3.4. TEST MODE

When the Master detector is set to Test mode, there are 2 elements that can be configured:
- Channel 1
- Channel 2

3.4.1. CHANNEL 1 – CHANNEL 2

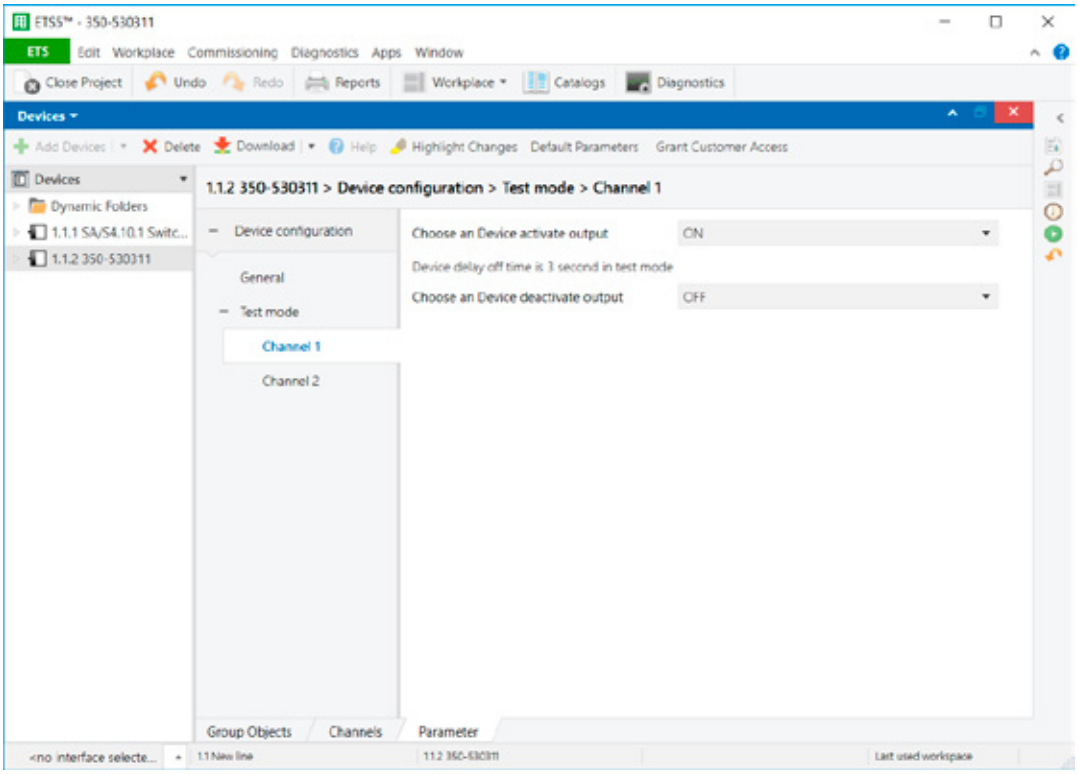

Figure 8: Test mode - Channel 1

Parameter	Description	
Choose a device activate output	With this parameter you can configure the device activate output signal. You can select the value via a drop-down list. Default Value: ON	
	ON	When movement is detected, the device output will send an ON-signal to a switch output or a universal dimmer actuator.
	OFF	When movement is detected, the device output will send an OFF-signal to a switch output or a universal dimmer actuator.
	Scene setting	When movement is detected, the device output will send a Scene value between 0 and 63. Default value: 1
	Brightness setting	When movement is detected, the device output will send a configurable dimming value (Brightness setting) between 10% and 100% to a universal dimmer actuator. Default value: 100%
Choose a device deactivate output	With this parameter you can configure the device deactivate output signal. You can select the value via a drop-down list. Default Value: OFF	
	ON	When movement is no longer detected and the switch-off delay has expired, the device output will send an ON-signal to a switch output or a universal dimmer actuator.
	OFF	When movement is no longer detected and the switch-off delay has expired, the device output will send an OFF-signal to a switch output or a universal dimmer actuator.
	Scene setting	When movement is detected, the device output will send a Scene value between 0 and 63. Default value: 1
	Brightness setting	When movement is no longer detected and the switch-off delay has expired, the device output will send a configurable dimming value (Brightness setting) between 10% and 100% to a universal dimmer actuator. Default value: 10%