

EN – Software Description

Subject to technical alteration
Version 11.04.07

29100...

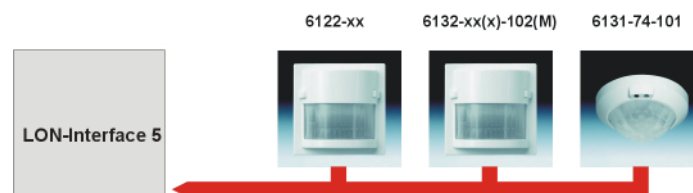


1 Application

By means of the LON-Interface 5 (bus coupling unit) the following devices of the Busch-Jaeger EIB programme:

- alpha nea / impuls: 6132-xx-102M
- alpha nea / alpha exclusiv / impuls: 6132-xx-102
- Präsenz: 6131-74-101
- future / future linear / solo / carat: 6122-xx

can be coupled to the building communication system LON of the company Echelon. The LON-Interface is designed as a gateway between the LON bus and the specific Busch-Jaeger device



The defaults of the LonMark® function profile **1060** „Occupancy Sensor“ are considered. For extended adjustment possibilities there are user configuration properties (UCPT). The UCPTs used are defined in the Thermokon Device Resource Files from Version 2.1 or higher.

2 Types Available

6132-xx-102, 6132-xx-102M, 6122-xx 180 UP Sensor Comfort

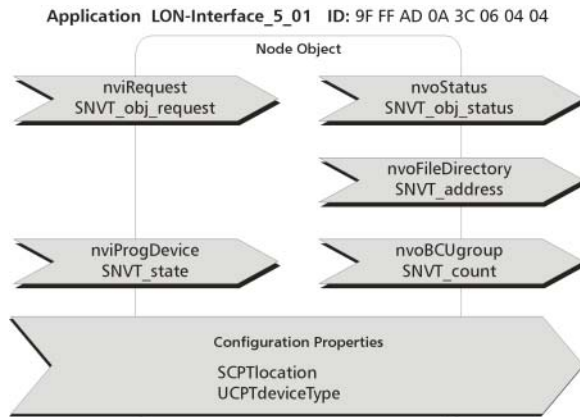
- Occupancy Detector

6131-74-101 Busch-Wächter Presence tech

- Presence detector for light control
- Presence detector for control of HVAC systems (heating, cooling, ventilation)

3 Software Description

3.1 Node Object



The Node Objekt supervises and controls the functions of the individual objects in the device. The basic functions required by the LonMark® are supported, whereas general network variables and configuration properties for the control and parameterization of the device were added.

Data Transmission:

After a parameterization, *nviProgDevice.bit0* must be set from 0 to 1, so that the new parameters are taken over. They are also taken over after a voltage reset.

3.1.1 Input Variables Node Object:

nviRequest

SNVT Type: SNVT_obj_request, Index 92

Function: Input variable including the functions RQ_NORMAL, RQ_UPDATE_STATUS and RQ_REPORT_MASK.

nviProgDevice

SNVT Type: SNVT_state, Index 83

Function: Input variable for parameterization of the control element. After the parameterization *nviProgDevice.bit0* must be set from 0 to 1, so that the new parameters are taken over in the control element.

nviProgDevice.bit0 = 0 → *nviProgDevice.bit0* = 1

Acceptance of the new parameters.

3.1.2 Output Variables Node Object:

nvoStatus

SNVT Type: SNVT_obj_status, Index 93

Function: Output variable including the requested status bits „invalid_id“ and „invalid_request“.

nvoFileDirectory

SNVT Type: SNVT_address, Index 114

Function: The output variable makes the address data of the configuration property in the device available to the LON integration tool.

nvoBCUgroup

SNVT Type: SNVT_count, Index 8

Function: Output variable with the LON-Interface type. The LON-Interface type cannot be changed.

3.1.3 Configuration Properties Node Object:

SCPTlocation

SCPT Index: 17, SNVT_str_asc

Function: Additional input option to save information on the location in the device.

UCPTdeviceType

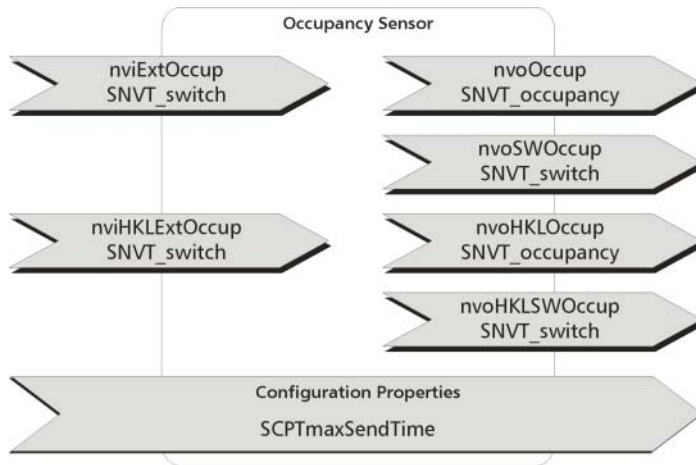
UCPT Index: 42, SNVT_count

Function: The software adaption is made via this configuration property. Valid input values are:

6131-74-101	==>	6131
6132-xx-102	==>	6132
6122-xx	==>	6122

Preset value : 0

3.2 Occupancy Sensor



Occupancy Sensor: The current room occupancy is output by the variables of type SNVT_occupancy and SNVT_switch. The reset of the output variables is made time delayed (adjustable at the device) after detected movement.

By the input / output variables of type SNVT_switch the occupancy sensor offers the additional possibility to connect various occupancy detectors or to directly switch a lighting depending on movement. The sensitivity of the occupancy sensor can be changed at the sensor.

6131-74-101 Busch-Wächter Presence

Besides the occupancy detector (*nvoOccup*) the presence detector also has a movement detector for the control of HVAC systems (heating, cooling, ventilation).

3.2.1 Input Variables Occupancy Sensor Object

nviExtOccup

SNVT Type: SNVT_switch, Index 95

Function: Input variable for external occupancy detector (e.g. OR-circuit link of several occupancy sensors).

By *nviExtOccup* =100.0 1 the output variables are set to OC_OCCUPIED respectively 100,0 1. With other values, the output variables are reset after expiration of the delay time. The inside IR-occupancy detector is logical OR-circuit linked with the control via *nviExtOccup*.

nviHKLExtOccup

SNVT Type: SNVT_switch, Index 95

Function: Input variable for external HVAC-occupancy detectors (e.g. OR-circuit link of several occupancy sensors).

By *nviHKLExtOccup* =100.0 1 the output variables are set to OC_OCCUPIED respectively 100,0 1. With other values, the output variables are reset after expiration of the delay time. The inside IR-occupancy detector is logical OR-circuit linked with the control via *nviExtOccup*. Only available at 6131-74-101 Busch-Wächter Präsenz tech.

3.2.2 Output Variables Occupancy Sensor Object

nvoOccup

SNVT Type: SNVT_occupancy, Index 109

Function: Output variable occupancy detector. It is set as soon as an inside or outside movement is detected. The reset is made after expiration of the delay time. Data transmission is made depending on the configuration property *SCPTmaxSendTime*.

nvoSWOccup

SNVT Type: SNVT_switch, Index 95

Function: Output variable occupancy detection. Is sent parallelly to *nvoOccup*. This variable can be evaluated as an "external occupancy detection" by another occupancy sensor or directly control a lighting group

nvoHKLOccup

SNVT Type: SNVT_occupancy, Index 109

Function: Output variable HVAC-occupancy detection. It is set as soon as an inside or outside movement is detected. The reset is made after expiration of the delay time. Data transmission is made depending on the configuration property *SCPTmaxSendTime*. Only available at 6131-74-101 Busch-Wächter Präsenz tech.

nvoHKLSWOccup

SNVT Type: SNVT_switch, Index 95

Function: Output variable HVAC-occupancy detection. It is sent parallelly to nvoHKLOccup. This variable can be evaluated as an "external HVAC-occupancy detection" by another occupancy sensor or it can directly control a HVAC system. Only available at 6131-74-101 Busch-Wächter Präsenz tech.

3.2.3 Configuration Properties Occupancy Sensor Object

SCPTmaxSendTime

SCPT Index: 49, SNVT_time_sec

Function: Heartbeat function. Stipulates the interval time after which the output variables are sent independently of a result change. By the input value = 0, the heartbeat function is deactivated. (Preset value: 120 sec)