# **Panasonic**®



611320-KNX-EN



KNX Ceiling Type Presence Detector A100

WRKT32005NC

KNX Ceiling Type Presence Detector A100-T

WRKT32015NC

KNX Ceiling Type Presence Detector A100-TA WRKT32025NC



Installation should only be carried out by a technical personnel having certificate of competency

# **Panasonic**

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# General Information

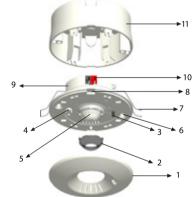
The device is a presence detector with integrated brightness sensor. Its power is supplied via KNX. The device can be programmed by ETS to transmit a data telegram when a movement is detected to control the lighting, blinds, or heating, for example. It can be also programmed to control dimmers to adjust the brightness in the room and keep it in a desired level. The device can also measure brightness, temperature, humidity and air quality and send it to another KNX devices (Some of these features depend on the product version, please see Product Versions section). The device can be flushed-mounted or surface-mounted and it's designed for interior installation.

# Main Features

- The PIR sensor on the product has a moving lens (mechanical adjustment) and a shade ring allow users to easily customize the coverage area and detection range.
- RGB Led can be used to indicate movements or/and one of the measurements value.
- Mixed light measurement suitable for fluorescent (FL/PL/ESL), halogen/incandescent lamps and LEDs.
- KNX programming button of the product is under the front cover for easy access.
- Product can be flush mounted installed in ceilings with clamps.
- Ceiling installation is also possible with surface-mounted box.
- 8 independent channels can be used for presence or/and brightness dependent control for lighting, HVAC control etc...
- Test mode for checking function and detection area

- All sensors measurements can be calibrated before ETS programming by parameters or after ETS programming by communication objects.
- Alarm function for measurements
- Presence dependent channels can work in parallel (Master/ Slave or Master/Master).
- Short presence function reduces the time delay when device detects movement briefly.
- Brightness switching value or set point value can be set in lux before ETS programming by parameters or after ETS programming by communication objects.
- Channel's presence and brightness sources can be from internal or/and external sensors.
- Independent lock function for each channel
- Channels can be programmed to work with manual switching/dimming (by push buttons for example).
- Scenes

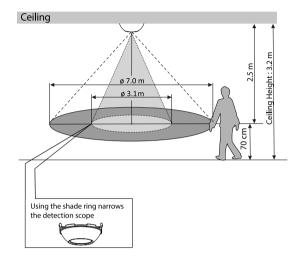
## **Product Components**



- 1 Cover
- 2 Shade ring
- 3 Light pipe for brightness sensor
- 4-KNX programming button and Led
- 5 PIR detector lens
- 6 Fixing screw holes
- 7 Fixing clamps
- 8-Groove for removing the Cover (1)
- 9-Main body
- 10 KNX bus terminal
- 11- Surface mount installation box (Sold seperately, Order number WRKT8300-XXX)

#### Technical Information

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Supply voltage	21 to 32 V DC via KNX Bus	
Current consumption	Max. 15mA	
Operating temperature	-5°C to +45°C	
Type of protection	IP 20 to EN60529	
Safety class	III to IEC 60664-1	
Detectable movement speed	0.3 m/s to 1.0 m/s	
Detectable temperature difference	More than 4°C	
Brightness measurement	1 to 3000 lux	
Temperature measurement	0°C to 45°C	
Relative humidity	0% to 100%	
Air Quality, Equivalent carbon dioxide (eCO2)	400 ppm to 8192 ppm	

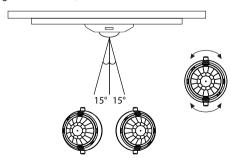


- The scope of detection is different depending on the height of the ceiling (Unit:m)
- The shade ring can be used if the detection range of the motion sensor is wanted to be reduced. It can be mounted to the device by pushing it towards the lens.

Ceiling height	2.7 m	3.2 m	4.2 m	
Guideline height for detection scope setting	7-1 7-1		3.5 m Ø 9.8 m	
Diameter of detection scope without shade ring				
Diameter of detection scope with shade ring	Ø 2.5 m	Ø 3.1 m	Ø44 m	

Remark: The standard of appropriate height is 70 cm from floor or height from floor to hand of human for detection.

The lens angle can be freely adjusted within the following range:  $360^{\circ}$  rotation,  $\pm 15^{\circ}$  horizontal.



Product Versions	
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	WRKT32005NC	WRKT32015NC	WRKT32025NC
Product Features	KNX Ceiling Type Presence Detector	KNX Ceiling Type Presence Detector	KNX Ceiling Type Presence Detector
	A100	A100-T	A100-TA
Presence detection	<b>√</b>	<b>√</b>	√
Brightness measurement	<b>√</b>	<b>√</b>	√
Temperature measurement	-	<b>√</b>	1
Humidity measurement	-	<b>√</b>	√
Air Quality measurement	-	-	√

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#### Installation

#### Flush-mounted installation

Press the fixing clamps together and push the device into the opening (Ø 57mm - 71 mm) with the fixing clamps in front. The fixing clamps hold the device on the ceiling. Maximum thickness of the suspended ceiling: 28mm



### • Surface Mount Installation

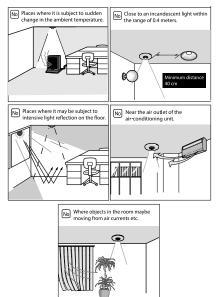
A suitable surface-mount box is available for surface mount installation. The device can be mounted directly to the box and two screws can be fastened optionally. The fixing clamps need to be removed before mounting the device to the box.



#### **Notes**

- Avoid mounting the device above a luminaire or a reflecting surface. Direct light influences the light measurement, so don't direct a light source to the device.
- Recommended mounting height is up to 4.2 m.
- The unit operates by detecting changes in temperature of 4 °C or greater that are caused by moving people.

So, it should not be installed in any of the places as shown here.



#### Start-up behavior

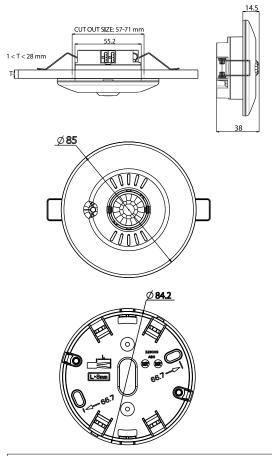
## **Factory Default**

In the delivered state, the device starts to work after 5 seconds in "Test Mode". While the device is in "Test Mode", the device's RGB LED displays the PIR sensor state (flashes blue briefly with motion). Test Mode can be disabled by ETS. Start up delay can be increased from ETS too.

#### **ETS Programming**

User can define the device behavior and connect it to another KNX devices after programming it by ETS. The behavior of the device after programming with the ETS depends on the configuration. The description of the features, parameters and objects is in the device reference manual.

#### **Dimensional Drawings**



#### **General Notes**

For all measurement values it is recommended to calibrate the sensors before using it. For more information see the device reference manual.

For the device version that comes with air quality sensor, Air quality measurement values start to be more accurate 1 hour after first time power up, and 30 minutes after every restart.

The devices are not suitable for use as an alarm system equipment.

#### WARNING

- Ensure that the power is cut off before the assembly of the products .
- Connection and assembly of the electrical devices should be carried out only by the technical personnel having certificate of competency.
- No responsibility is assumed for the entire of the malfunction, accident and loss arising from the assembly or interference of the persons not having the competency certificate.
- Use dry or slightly damp cloth to clean the buttons, cover and frame of the product. Never use alcohol, cologne, detergent or other similar chemicals for cleaning. Do not perform wet cleaning do not contact the product with water when the product is energized.
- In case the surface to which the product is connected is dyed, store the product by removing its cover and the frames.
- Keep the product away from the damp or wet environment during the transportation and shipping.

#### **Service and Guarantee**

- Warranty period starts as of the delivery date of the product and it is 2 years.
- Warranty covers the malfunctions likely to occur due to the manufacturing defects of the product and within the warranty period.
- The product including all of its parts is under waranty as a whole. If the product turns out to be defective, the consumer can use one of the following rights stipulated in Article 11 of Consumer Protection Law no. 6502;
- a-Withdrawal from the contract
- b- Demanding discount from sales fee
- c-Demanding free repair,
- d- Demanding the replacement of the sold one with a fungible one free from defects.
- In case the consumer chooses the right of free repair among those rights; the dealer is obliged to repair the product or have the product repaired without claiming any fee under the name of replaced part fee, labor cost or for any other reasons. The consumer can also use the right of free repair against the manufacturer or exporter. The dealer, manufacturer and exporter are jointly and severally liable for the usage of this right by the consumer.
- In case the consumer uses the right of free repair and if the product
- fails within the warranty period again and
- the maximum period required for the repair is exceeded and
- Authorized service station, dealer, manufacturer or exporter state that it's not possible to repair the product in a report, the consumer can demand the return of the product fee, fee discount at the ratio of the defect or the replacement with the one free of defects, if possible, from the dealer. The dealer can not reject the demand of the consumer. In case this demand is not met, the dealer, manufacturer and exporter shall jointly and severally be held responsible.
- The repair period of the product can not exceed 20 business days. This period starts on the notification of the failure on the product to the authorized service station or the dealer within the warranty period and from the date of delivery of the product to the authorized service station out of warranty period. In case of not eliminating the product malfunction within 10 business days, manufacturer or importer is obliged to dedicate another product with similar characteristics to the use of the consumer until the completion of the product repair. In case the product fails within the warranty period, elapsed time is added to the warranty period.
- Usage of the product contrary to the rules stipulated in user's manual, operating out of determined voltage, current and environmental conditions, damage on the cable connection due to the user's fault and failure of the product due to the facts arising from the fire, flood, earthquake, lightning and similar disasters are not under warranty.
- The consumer can apply to the arbitration committee for consumers or the consumer court where the consumer operations are made or in the residential area for the disputes to be occurred regarding the usage of the rights arising from the warranty.
- In case the dealer doesn't provide this certificate of warranty, the consumer can apply to the General Directorate of Consumer Protection and Market Surveillance of Ministry of Customs and Trade".