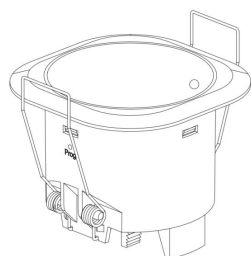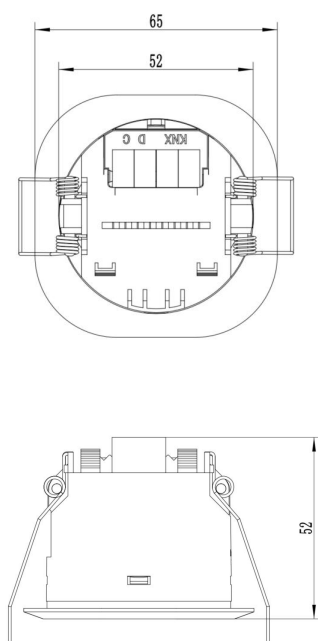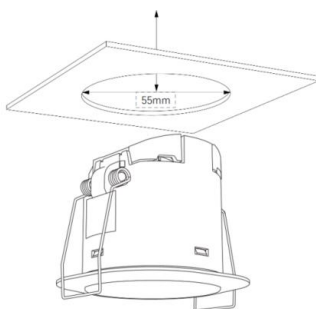# BCK-SEXF-24ID
Presence Sensor

Description

The presence sensor is equipped with a built-in 24GHz millimeter-wave radar module, capable of detecting the presence of living beings (primarily humans) within the detection area by identifying characteristics such as breathing and heartbeat, thus enabling real-time monitoring of human presence to trigger control of terminal devices. It features an integrated KNX module that, via the bus system, allows control of home and building systems including lighting, curtains, security, energy management, heating, ventilation, and air conditioning. It supports KNX functions such as illuminance-based switching control, presence detection control, and logic control. Requires a 24V auxiliary power supply.
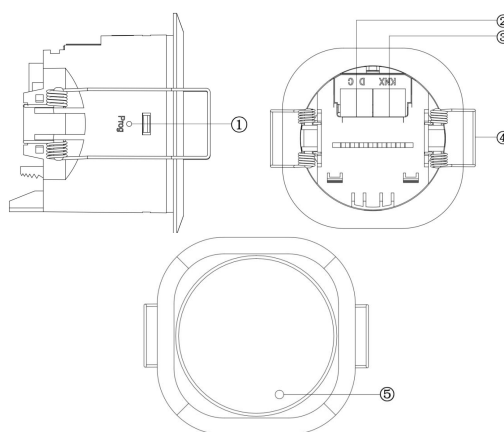
Dimensions

Installation Instructions

1. Ceiling-mounted flush installation
2. Cut-out diameter: φ55mm
3. Adjust the spring clips to an upright position and insert the sensor; the spring clips will automatically secure it at the top.
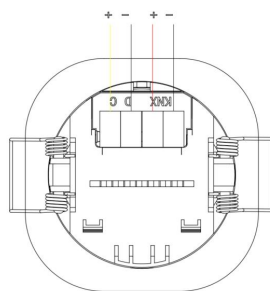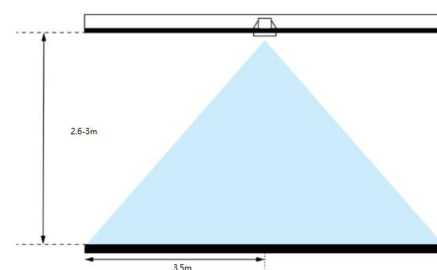

Interface Description

1. Programming Button
2. 24V Port
3. KNX Port
4. Spring Clip
5. Illuminance Detection Sensor

Connection

Separate the KNX/EIB cable, strip 5mm of insulation from the red-black and yellow-white KNX/EIB signal wires and the auxiliary power wires respectively, and insert each wire into the corresponding terminal according to its color.

Detection Range

Due to variations in installation height, human height, body size, and posture, the radial detection range of this product may differ when ceiling-mounted. The maximum detection distance radius under default configuration is 3.5 meters. This product features a wide-beam radar, enabling broad-area detection when ceiling-mounted. The recommended installation height range is 2.6 to 3.2 meters.

Technical Specifications

- KNX voltage: 30VDC
- KNX current: <12mA
- Auxiliary voltage: 24VDC
- Auxiliary current: <15mA
- Detection range (diameter): <7 meters
- Recommended installation height: 2.6~3.2m
- Installation method: Ceiling-mounted
- Operating temperature: -5℃ to +45℃
- Storage temperature: -25℃ to +55℃
- Transportation temperature: -25℃ to +70℃
- Operating humidity: <90%

Precautions

- Ensure the sensor is ideally facing the area to be monitored, with a clear and unobstructed field of view in front of the sensor.
- Install the sensor in a secure and stable location, as any vibration or movement of the sensor itself may affect detection performance. Abnormal detection may occur if installed near central air conditioning units.
- Ensure there is no movement or vibration behind the sensor. Due to the penetrative nature of radar waves, signals from the antenna's back lobe may detect moving objects behind the sensor.
- When installing multiple sensors, avoid direct alignment of their radar beams. For ceiling-mounted radar sensors operating at the same frequency, maintain a minimum spacing of 3 meters to prevent mutual interference.