

HIR61/TK

DALI-2 PIR Lowbay | DALI Input Device | 6 Wires 3 Circuits

HYTRONIK®
SENSORS & LIGHTING CONTROL



Benefits

Simple: Plug-in installation without extra wiring

DALI-2 feature: Occupancy (part 303) Daylight (part 304)

Integrated: Fits directly into DALI track without affecting luminaire design

Applications

DALI track light system

Offices, Retail stores, Warehouse

Museums, Galleries

Check Out the Complete System Solution on the Website:
<https://www.hytronik.com/product/HIR61-TK>

Product Description

HIR61/TK is a DALI-2 PIR motion sensor for DALI track systems, functioning as a DALI input device. It integrates a DALI-2 module, PIR motion sensor, and daylight sensor, allowing flexible installation without affecting the track luminaire design, suitable for retrofit upgrades and new projects. Installation is simple, requiring only insertion into the track without extra wiring, improving project efficiency and reducing installation complexity.

Functions and Features

See additional details at the end of datasheet



D4i Certified



DALI-2 Certified

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Specifications

Main Capabilities

Dimming (Output) Interface	DALI/DALI-2
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Sensor Data

Detection angle	360°
Lux range	<1000 lux
Max. Detection range (Diameter)	12.0 m
Maximum Mounting Height	3.0 m
Detection area	113 m²

Electrical Data

Operating voltage range	9.5-22.5 VDC
In-rush current	20.0 mA
Current Consumption	Max. 8 mA (no LED)

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Specifications

Technical	
Product weight	97.0 g
Product height	53.0 mm
Product length	261.6 mm
Product width	31.0 mm
Ambient temperature	-20 ~ +50 °C
Storage temperature	-40 ~ +70 °C
Humidity max	10 ~ 90%
IP Rate	IP20

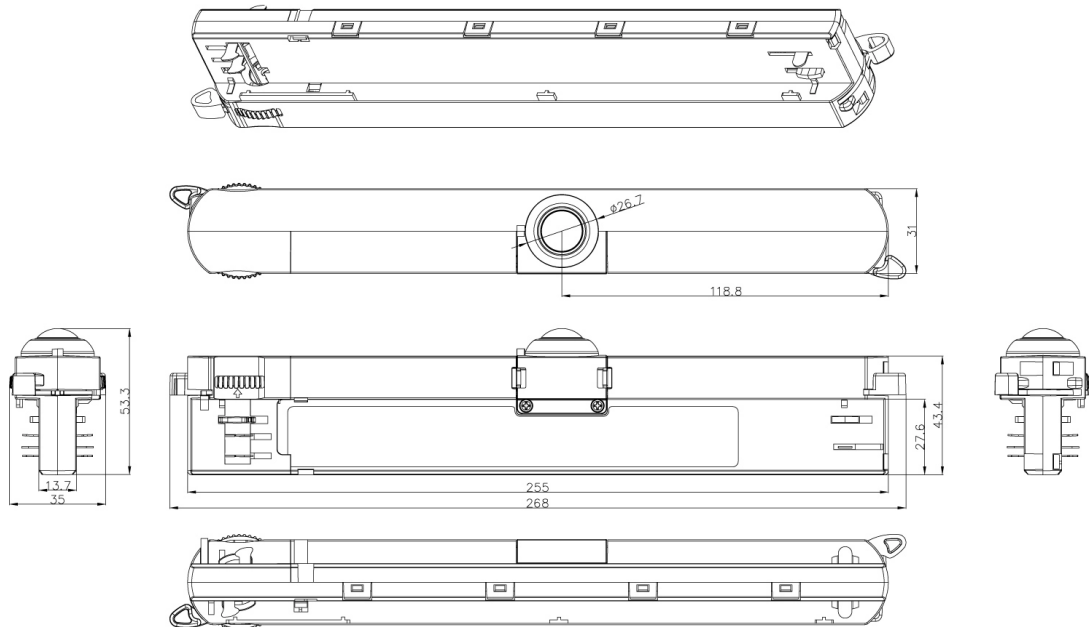
Standard	
EMC	EN 61547, EN IEC 55015
LVD	EN 60570-1, EN 61347-1, EN 61347-2-11

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Technical Drawing



Application Example



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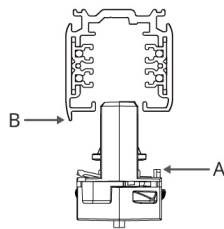
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Installation Process

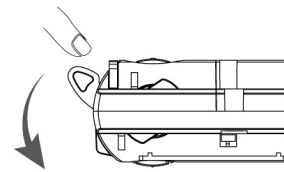
1



2



3



Detailed Installation Instructions

A. Track Adapter Phase

1. The product is factory-set to L1 phase, and the phase setting cannot be changed. No phase adjustment is required before installation.

B. Insert into Track

2. Align the track adapter with the track rail, ensuring A and B are correctly offset, then insert the device vertically into the track slot.

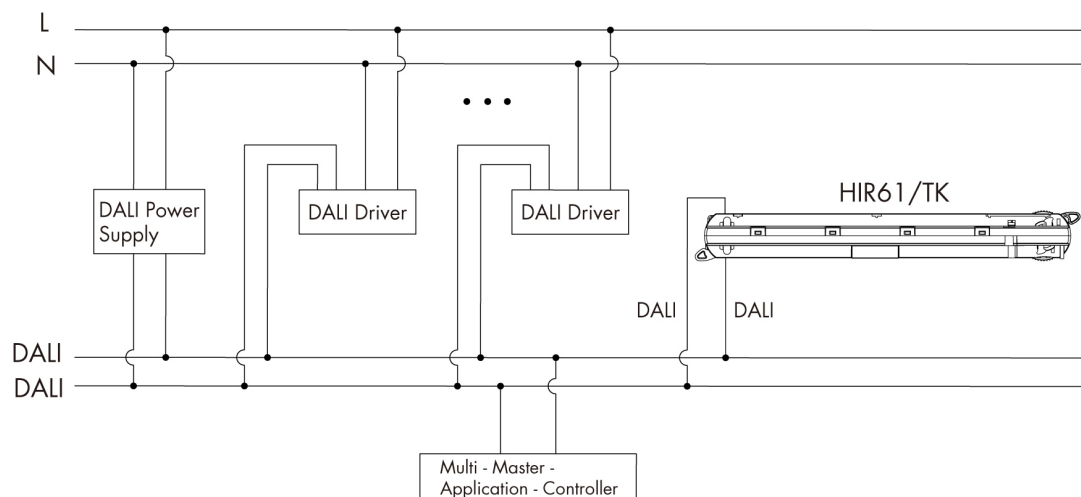
C. Lock the Device

3. Rotate the cam lever until it reaches the locking position and the device is firmly secured in the track.

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Wiring Diagram

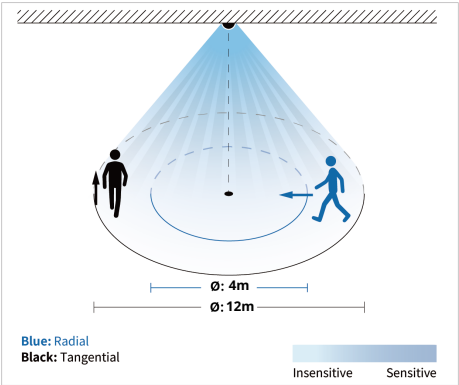


Detection Range

Single Person Walk (Ceiling mount)

- The data below is tested under following conditions:
- Single person walking
 - Sensor not connected to any driver that may have soft-on period
 - Testing temperature Ta = 20°C
 - The testing is conducted in an open and spacious indoor field, without noticeable obstacles or influences that may affect PIR performances.

Detection example 3m mounting height:



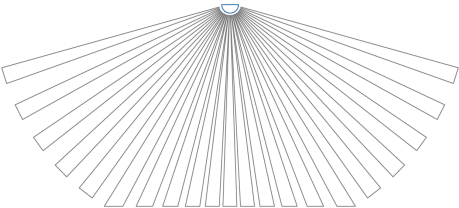
Tangential Movement

H[m]	3
Ø[m]	12

Radial Movement

H[m]	3
Ø[m]	4

Detection schematic diagram



Commissioning Instructions and Precautions

A. Installation Notes

1. This product should be installed by a qualified electrician.
2. To ensure better Bluetooth transmission, install the sensor head outside the surface of the light fixture.
3. Avoid direct light exposure of the sensor head by the light fixture to ensure the accuracy of the daylight sensor.

B. Function Notes

1. HIR61/TK has been used as DALI-2 input device to only report DALI instance (light sensor instance and motion sensor instance) to DALI-2 application controller, who is the "main brain" to process the data communication between input devices and the control gear and assign different function.

C. DALI-2 Compliance

1. This product has been tested in accordance with IEC 62386 and complies with the relevant DALI-2 application parts. DALI-2 testing was performed using the official DALI test sequence software (version 2.2.0.0), covering the applicable IEC 62386 parts (e.g. Part 101, Part 103, Part 303, Part 304, Part 351). DALI-2 certification verifies compliance within the defined test scope.

However, certification does not eliminate the possibility of system-level compatibility issues arising from differences in device implementation or system design among manufacturers. Therefore, functional verification and on-site testing are required as part of the final system commissioning to ensure proper operation and compliance with project requirements.

D. Factory settings

1. Default: Deadtime:0.10s, Hold:15.00min, Hysteresis Min:10Lux, Hysteresis:5%

E. Compatibility

It is compatible with the following track brands:

- GLOBAL 6-wire 3-phase tracks: XTSC-6XXX and XTSCF-6XXX
- Powergear 6-wire 3-phase tracks: Surface-mount version: PRO-0610 / 20 / 30 / 400, Recessed-mount version: PRO-R610 / 20 / 30 / 400
- Stucchi: 9000A series

Note: Compatibility means the track adaptor is designed to fit the current track specifications of these brands. However, compatibility cannot be guaranteed if the track manufacturers change their track dimensions or specifications in the future.

Warning: For additional important documents, including installation precautions, product guidelines, and guarantee conditions, please refer to the official downloads.

<https://hytronik.com/service/downloads>

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Functions and Features



D4i Certified

This product is certified under the D4i specification by the DALI Alliance, ensuring compliance with the relevant DALI-2 and D4i requirements for interoperability, safety and performance. Certification guarantees that the device meets the standardized electrical, digital interface and device-type requirements defined for D4i ecosystems.



DALI-2 Certified

The product is DALI-2 certified, ensuring compatibility with DALI-2 control devices and compliance with relevant international lighting control standards. Certified product details can be verified via the DALI Alliance product database.

Check out for further explanation of features

<https://hytronik.com/solutions/lighting-control-features>