HYTRONK HIR Series Flush Mount PIR Motion Sensor Instruction Manual

Contents

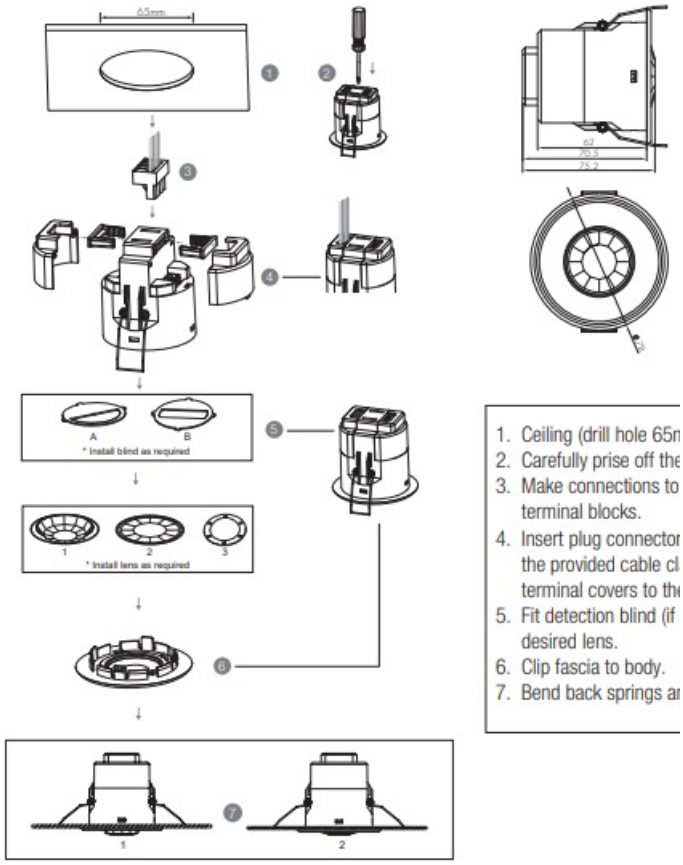
HYTRONIK ®

HYTRONK HIR Series Flush Mount PIR Motion Sensor

Technical Specifications

Mains voltage	220~240VAC 50/60Hz
Stand-by power	<1W
Load ratings:	
Capacitive	400VA
Resistive	800W
Warming-up	20s
Sensor principle	PIR detection
Detection range (Max.)*	Installation Height : 5m Detection Range (Ø) :9m
Detection range (Max.)* HIR28/R	Installation Height : 6m Detection Range(Ø) :10m
Detection range (Max.)* HIR28/H	Installation height 15m (forklift) 12m (person) Detection range (Ø) 24m
Detection range (Max.)* HIR28/RH	Installation height 15m (forklift) 12m (person) Detection range (Ø) 40m
Detection angle	360°
Operation temperature	Ta: -20°C ~ +50°C
IP rating	IP20
EMC standard (EMC)	EN55015, EN61000
Safety standard (LVD)	EN60669-1, EN60669-2-1
Certification	Semko, CB, CE , EMC, LVD, RCM

Installation



1. Ceiling (drill hole 65mm)
2. Carefully prise off the cable clamps.
3. Make connections to the pluggable terminal blocks.
4. Insert plug connectors and secure using the provided cable clamps, then clip terminal covers to the base.
5. Fit detection blind (if required) and desired lens.
6. Clip fascia to body.
7. Bend back springs and insert into ceiling.

Functions

On/ off Control

This sensor is a motion switch, which turns on the light upon detection of motion, and turns off after a pre-selected hold-time when there is no movement. A daylight sensor is also built in to prevent the light from switching on when there is sufficient natural light.

Lux Off Function

The built-in daylight sensor can measure ambient natural light and switch off the fixture automatically whenever artificial light is not required (natural light lux level exceeds daylight threshold).

Manual Override

With the help of push-switch, this sensor can be over-ridden by the end-user to manually switch on/off the light, which makes the product more user-friendly and offers more options to fit some extra-ordinary demands:

Semi-auto Mode (Absence Detection)

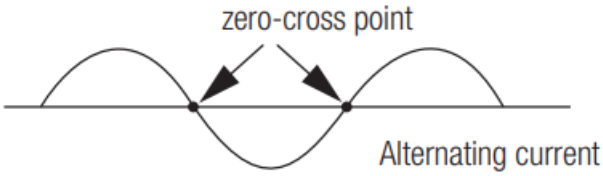
It is easy to forget to switch off the light, in office, corridor, even at home. And in many other cases, people do not want to have a sensor to switch on the light automatically, for example, when people just quickly pass-by, there is no need to have the light on. The solution is to apply this “absence detector”: motion sensor is employed, but only

activated on the manual press of the push-switch, the light keeps being ON in the presence, and switches off in the long absence.
Note: end-user can choose either function

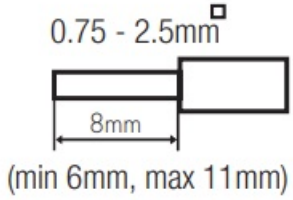
for application.
Default function is manual override.

Zero-cross Relay Operation

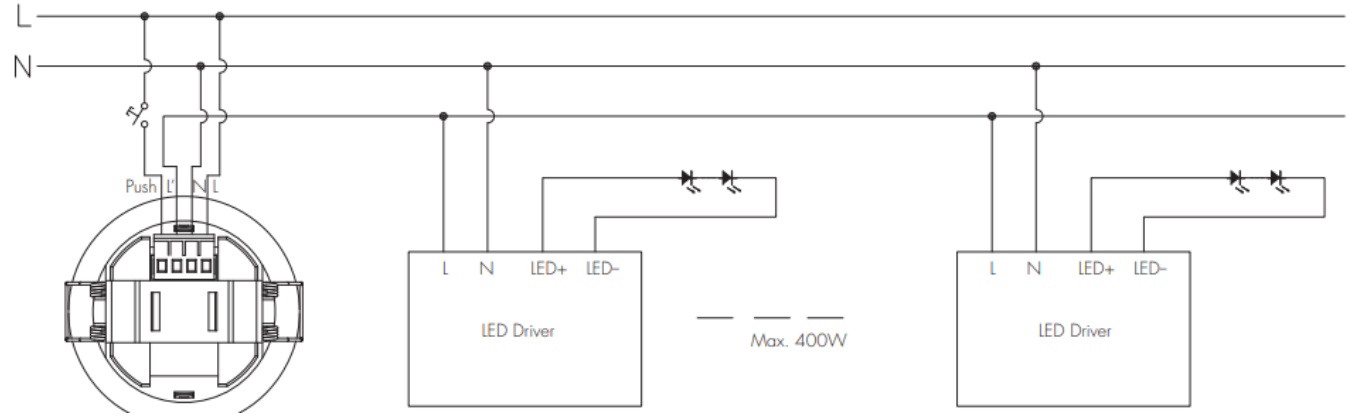
Designed in the software, sensor switches on/off the load right at the zero-cross point, to ensure that the in-rush current is minimised, enabling the maximum lifetime of the relay.



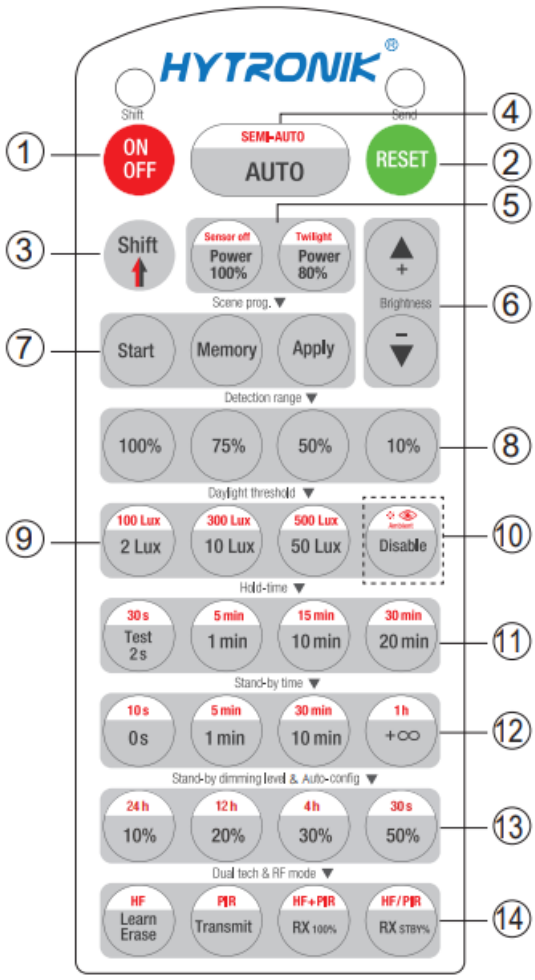
Wire Preparation
Pluggable screw terminal. It is recommended to make connections to the terminal before fitting to the sensor.



Wiring Diagram



Description of the Button Functions



HRC-11

Permanent ON/OFF [buttonO

Press button), to select permanent ON or pemanent OFF mode

* Press button/to to quit this mode. The mode will change to ALUTO Mode after power failure.

RESET[button

Press button , all settings go back to default values as below Hold-time 5min, daylight threshold Disabled

Shift [button]

Press button O, the LED on the top left corner is on

selection. All values / settings in RED are in valid for 20 seconds.

to indicate mode

Auto Mode [button

Press buttonOto intiate automatic mode. The sensor starts working
and all settings remain as before the light is switched ON/OFF.

Semi-auto Mode [button&®1

1. Press button Shift (the red LED IS on for indication).
2. Press buttonto initiate semi-auto mode. The fixture is manually on by push-SWitch and automaticaly off in seml-auto mode.

Power output [button1
these two buttons are disabled. Brightness +l- [button®1 These two buttons are disabled. Scene prog. [zone] (One-key-commissioning)

1. Press button “Stat” to program.
2. Select the buttons in “Detection range”, O/® ‘Daylight threshold’,
   Hold time” to set all parameters.
3. Press butonMemory’ to save all the setings programmed in the
   remote control.
4. Press button “Apply” to set the settings to each sensor unit(s). For example, to set detection range 100%, daylight threshold Disable, hold time 5min, the steps should be: Press button Start, button 100%, Disable, Shift, 5min, Memory. By pointing to the sensor unit(s) and pressing Apply, all settings are passed on the sensor(s).

Ambient daylight threshold [button]

1. Press button Shift, the red LED starts to flash.
2. Press button , the ambient lux level is sampled and set as the new daylight threshold / target Lux level.

Hold time [zone]
Press buttons in zone to set the hold time at 2s / 30s / 1min / 5min / 10min / 15min / 20min / 30min.

Note:

1. To set hold-time at 30s / 5min / 15min / 30min, press button Shift at first.
2. 2s is for test purpose only, stand-by period and daylight sensor settings are disabled in this mode.
   To exit from Test mode, press button or any button in zone .

All buttons in zone “Stand-by time ”, “Stand-by dimming level & Auto-config“, “Dual-tech & RF mode” are disabled.

Detection Pattern & Optional Accessories.

1. **HIR28 (Low-bay)**

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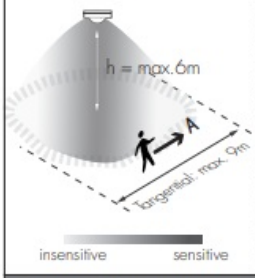
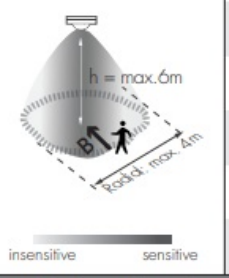
HIR28: Low-bay flat lens detection pattern for **single person** @ Ta = 20°C

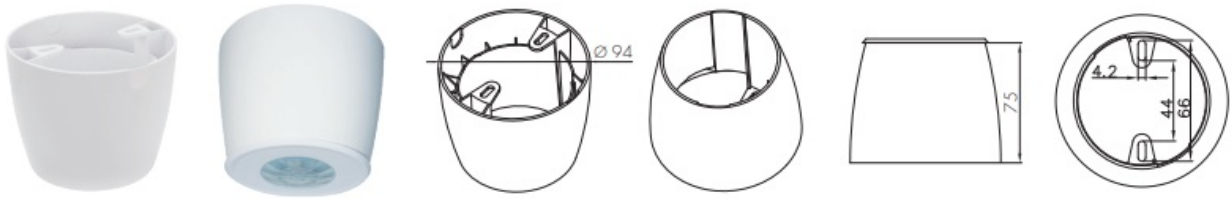
(Recommended ceiling mount installation height **2.5m-6m**)





Mount height	Tangential (A)	Radial (B)
2.5m	max 50m² (Ø = 8m)	max 13m² (Ø = 4m)
3m	max 64m² (Ø = 9m)	max 13m² (Ø = 4m)
4m	max 38m² (Ø = 7m)	max 13m² (Ø = 4m)
5m	max 38m² (Ø = 7m)	max 13m² (Ø = 4m)
6m	max 38m² (Ø = 7m)	max 13m² (Ø = 4m)

Optional Accessory -- Ceiling/Surface Mount Box: HA03

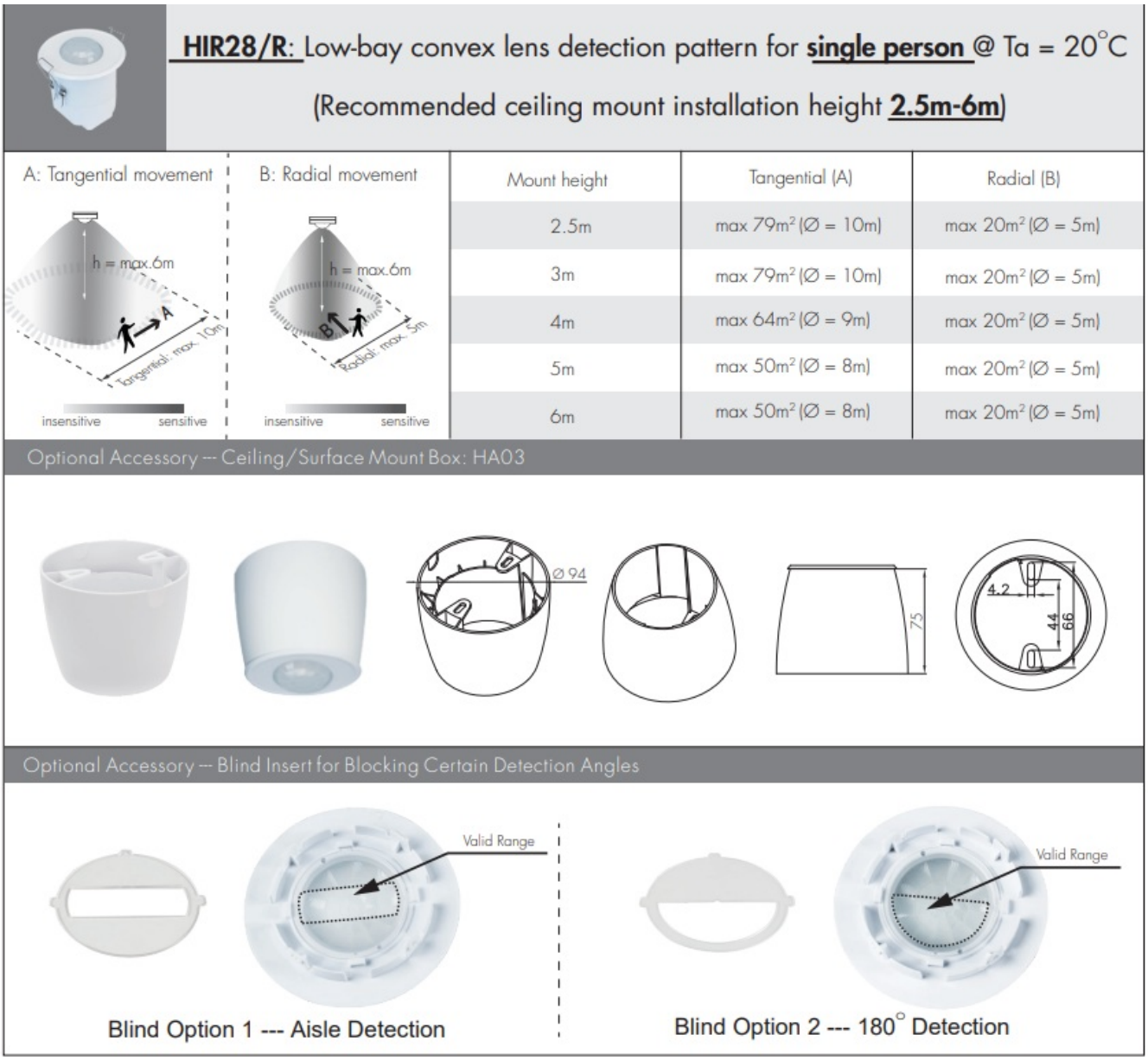


Optional Accessory -- Blind Insert for Blocking Certain Detection Angles

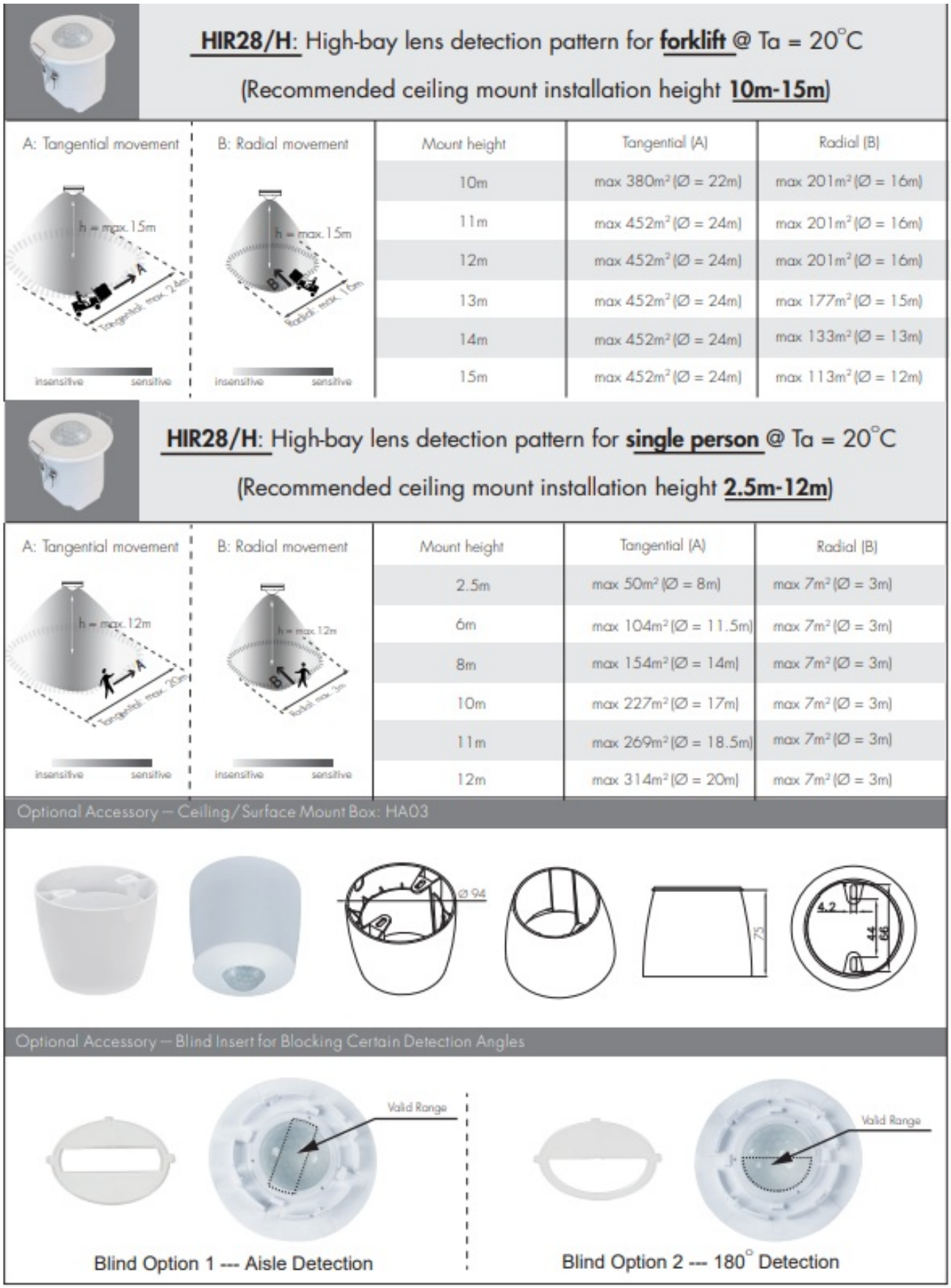
Blind Option 1 --- Aisle Detection

Blind Option 2 --- 180° Detection

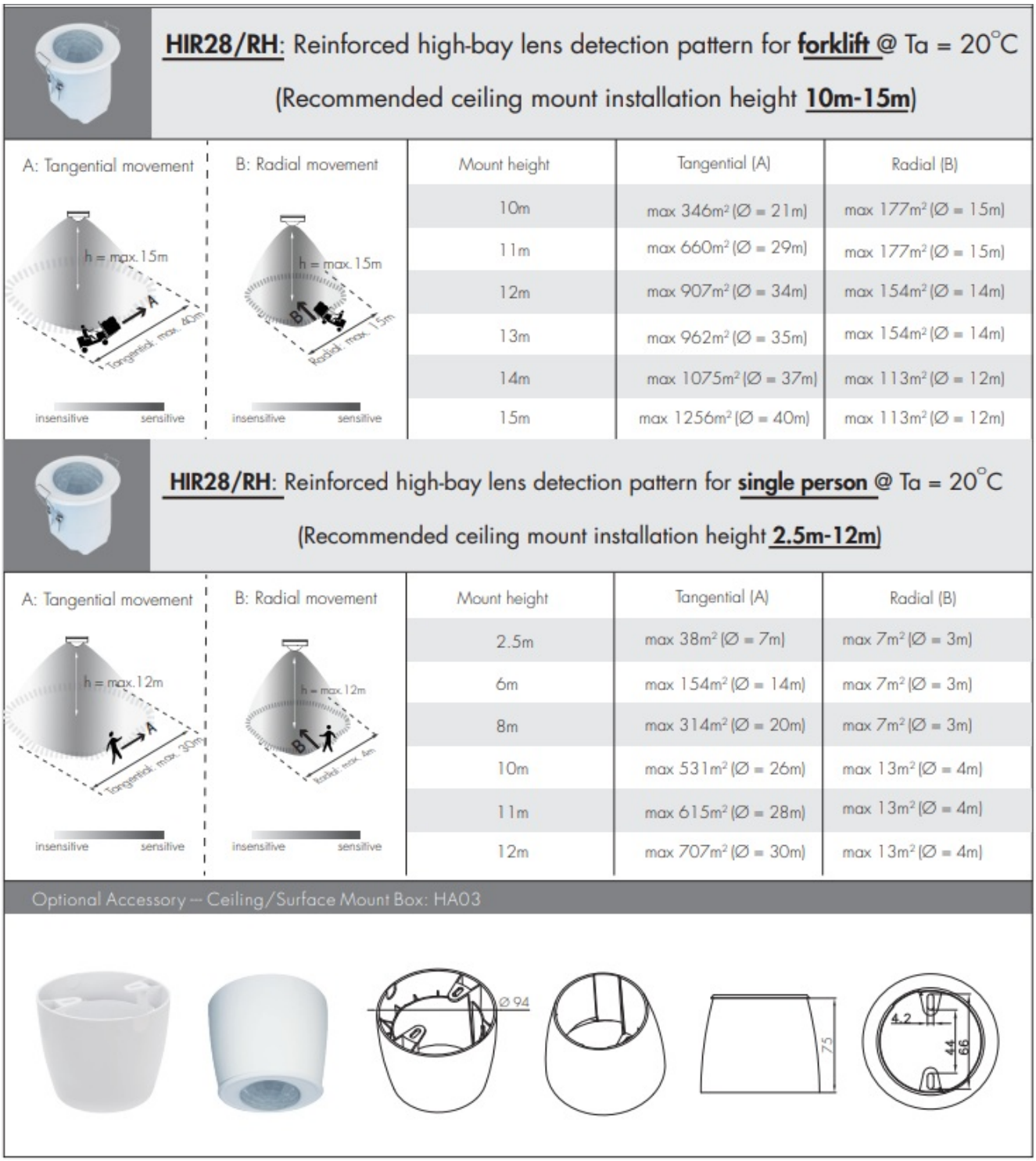
2. **HIR28/R (Reinforced Low-bay)**



3. **HIR28/H (High-bay)**



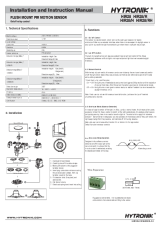
4. **HIR28/RH (Reinforced High-bay with 3-Pyro)**



Additional Information / Documents

1. Regarding precautions for PIR sensor installation and operation, please kindly refer to www.hytronik.com/download->knowledge->PIR Sensors – Precautions for Product Installation and Operation
2. Regarding Hytronik standard guarantee policy, please refer to www.hytronik.com/download->knowledge->Hytronik Standard Guarantee Policy.

Documents / Resources

	HYTRONK HIR Series Flush Mount PIR Motion Sensor [pdf] Instruction Manual HIR Series Flush Mount PIR Motion Sensor, HIR Series, Flush Mount PIR Motion Sensor, Flush Mount Motion Sensor, PIR Motion Sensor, Motion Sensor, Sensor, PIR Sensor, HIR28, HIR28R, HIR28H, HIR28RH

References

- Catalogue_Hytronik