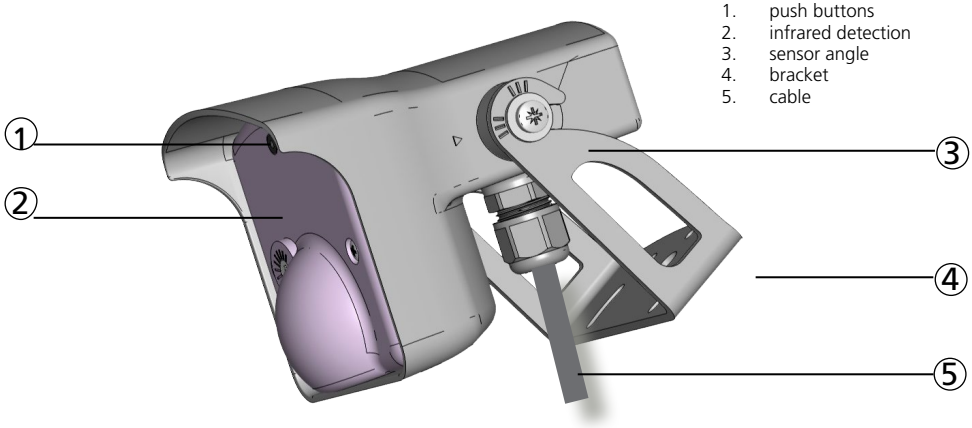
MILAN

PRESENCE SENSOR FOR AUTOMATIC INDUSTRIAL DOORS

Other use of the device is outside the permitted purpose and can not be guaranteed by the manufacturer.
The manufacturer cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.

User's Guide for product version 0700 and higher
See product label for serial number

DESCRIPTION



1. push buttons
2. infrared detection
3. sensor angle
4. bracket
5. cable

TECHNICAL SPECIFICATIONS

Supply voltage:	12V to 24V AC ±10%; 12V to 24V DC +10% / -3% The Equipment must be powered by an approved Class II SELV limited power source. This requirement consists of the need for double insulation between primary voltages and the Equipment supply. The supply current should be limited to max 3A.
Power consumption:	< 3.5 W / VA
Mains frequency:	50 to 60 Hz
Output:	2 relays (free of potential change-over contact)
Max. contact voltage:	42 V AC/DC
Max. contact current:	1 A (resistive)
Max. switching power:	30 W (DC) / 42 VA (AC)
Output holdtime:	0.5 s
Mounting height:	2.5 m - 6 m*
Temperature range:	from -30 °C to + 60 °C
Humidity:	0 - 95% non condensing
Degree of protection:	IP65
Dimensions:	127 mm (L) x 102 mm (H) x 96 mm (W)
Materials:	ABS and polycarbonate
Weight:	400 g
Cable lenght:	10 m
Technology:	active infrared
Transmitter frequency/wavelength:	875 nm
Transmitter power density:	< 250 mW/m²
Detection mode:	motion & presence
Detection field:	4 m x 4 m (emitting spots**)
Min. detection speed:	5 cm/s to activate detection
Reaction time:	250 ms
Tilt angle:	15° - 45°

Specifications are subject to changes without prior notice.
Measured in specific conditions

* depending on size and nature of target
** zone detected by spotfinder, slightly bigger than actual detection field

LED- SIGNAL

Output 1
Value indication

Output 2
Parameter indication

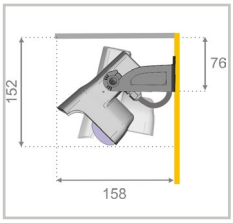
Setup

LED flashes

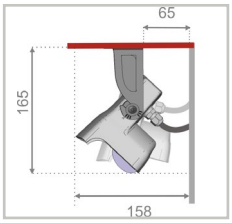
LED flashes quickly

LED is off

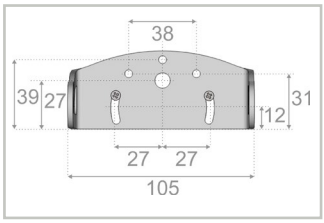
DIMENSIONS (in mm)



Wall mounting



Ceiling mounting



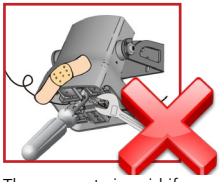
Bracket dimensions

SAFETY INSTRUCTIONS

Only trained and qualified personnel may install and setup the sensor.

After installation, save an access code to lock the sensor.

Test the good functioning of the installation before leaving the premises.



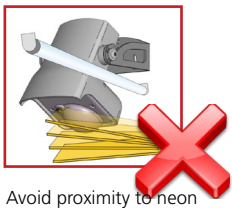
The warranty is void if unauthorized repairs are made or attempted by unauthorized personnel.

The manufacturer of the door system is responsible for installing the sensor and the door system in compliance with applicable national and international regulations.

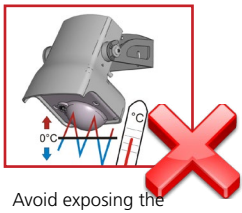
MOUNTING TIPS

Do not cover the sensor.

Avoid extreme vibrations.



Avoid proximity to neon lamps or moving objects.



Avoid exposing the sensor to sudden temperature changes.

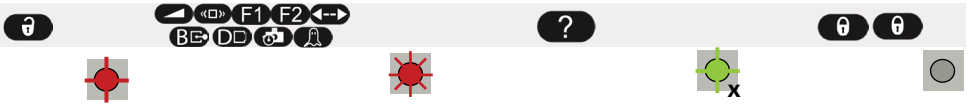
HOW TO USE THE REMOTE CONTROL

After unlocking, the red LED flashes and the sensor can be adjusted by remote control.

If the red LED flashes quickly after unlocking, enter an access code from 1 to 4 digits.
If you do not know the access code, **cut and restore the power supply**. During 1 minute, you can access the sensor without introducing any access code.

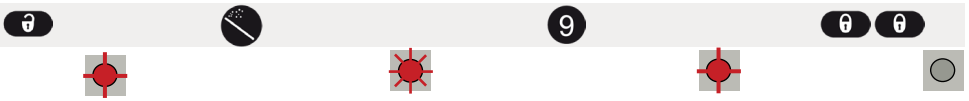
ADJUSTING ONE OR MORE PARAMETERS

CHECKING A VALUE



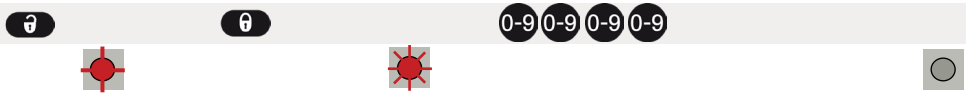
The number of flashes indicates the value of the chosen parameter.

RESTORING TO FACTORY VALUES



SAVING AN ACCESS CODE

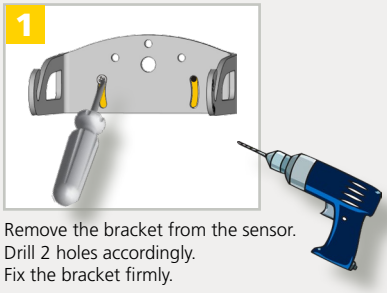
The access code is recommended for sensors installed close to each other.



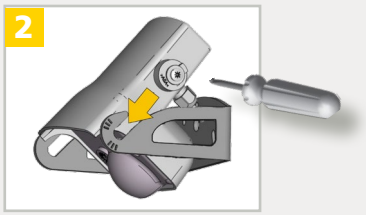
DELETING AN ACCESS CODE

If you do not know the access code, **cut and restore the power supply**.
During 1 minute, you can access the sensor without introducing any access code.

1 MOUNTING



Remove the bracket from the sensor.
Drill 2 holes accordingly.
Fix the bracket firmly.



Position the sensor on the bracket and fasten the screws.

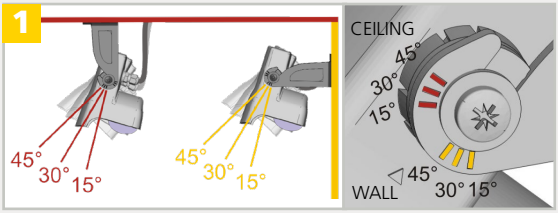
2 WIRING

GN BN	12-24 V AC-DC	POWER SUPPLY	
WH YE GY	COM NO NC	IR OUTPUT 1 Presence or pulse signal	
PK VT BK	COM NC NO	IR OUTPUT 2 Presence signal	

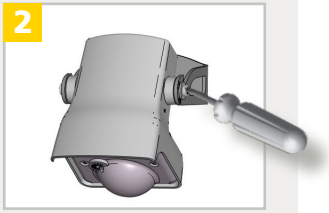
Connect the wires to the door controller.
Choose between NO and NC contact.

NO POWER NO DETECTION DETECTION		ACTIVE
NO POWER NO DETECTION DETECTION		PASSIVE

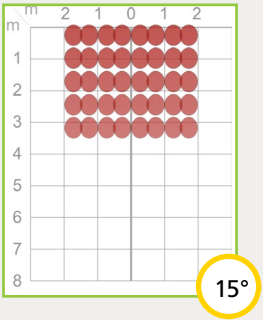
3 SENSOR ANGLE

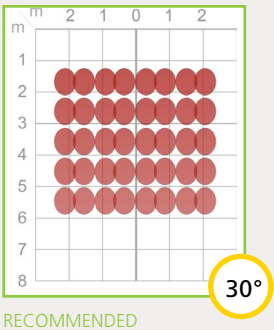


Adjust the angle of the sensor to position the detection fields.

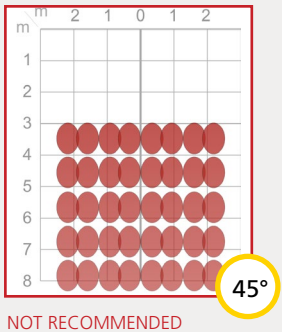


Tighten the screws firmly.





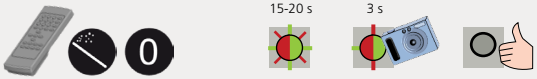
RECOMMENDED



NOT RECOMMENDED

All detection field dimensions are measured in specific conditions (mounting height: 5 m).
Infrared field = emitting spots detectable by Spotfinder. The actual detection field is slightly smaller and influenced by external factors.

4 SETUP



Launch a setup to make a reference picture.
Step out of the detection field and do not leave any tools inside the detection field.

After first power on, the sensor launches a setup and after each power cut a short setup is launched.

POSSIBLE REMOTE CONTROL SETTINGS

OUTPUT REDIRECTION	F1	presence	ir entry pulse	ir exit pulse	frontal ir entry pulse	frontal ir exit pulse	RELAY 1
		presence	presence	presence	presence	presence	RELAY 2

FREQUENCY	DC		A	B							
MAX. PRESENCE DETECTION TIME		30 s	1 min	2 min	5 min	10 min	20 min	1 h	1 h 30	2 h	∞*
IR-CURTAIN IMMUNITY			low	normal	high						
MIN. SIZE OF TARGET	F2										
IR-DETECTION FIELD	BE										

* not guaranteed

The position of the target in the field is random.

FACTORY VALUES

RESETTING TO FACTORY VALUES: 

IMPORTANT:
Test the good functioning of the installation before leaving the premises.
Always finish an adjustment session by launching a setup.

TROUBLESHOOTING

The door remains closed and the LED is OFF.	The sensor power is off.	1 Check the wiring and the power supply.
The infrared sensor does not react.	The infrared power emission is too low according to the mounting height.	1 Launch a new setup. Step out of the detection field!
The door opens and closes constantly.	The sensor is disturbed by the door motion or vibrations caused by the door motion.	1 Make sure the sensor is fixed properly. 2 Increase the sensor angle and/or radar angle. 3 Reduce the field size.
Sporadic presence detections for no reason.	The presence detection is disturbed by rain or lamps.	1 Set the IR-curtain immunity to value 3.
	The sensor is not installed properly.	1 Fasten the sensor firmly.
The red LED is permanently ON after a setup.	The sensor has failed the IR-setup.	1 Launch a new setup. Step out of the detection field!
The setup lasts more than 30 seconds.	The setup is disturbed.	1 Make sure the detection field is clear and launch a new setup.
	Another sensor causes interferences.	1 Select a different frequency for each sensor.
The sensor does not unlock and the red LED flashes quickly.	The sensor needs an access code to unlock.	1 Enter the right access code. 2 If you do not know the access code, cut the power supply and restore it to access the sensor and change the access code or delete it.
The sensor does not respond to the remote control.	The remote control batteries are weak or improperly installed.	1 Check the batteries and change them if necessary.
	The remote control is badly pointed.	1 Point the remote control towards the sensor.
	The sensor is not powered.	1 Check the power supply of the sensor.

A **Halma** company

BEA SA | LIEGE Science Park | ALLÉE DES NOISETIERS 5 - 4031 Liège [BELGIUM] | T +32 4 361 65 65 | F +32 4 361 28 58 | INFO@BEA.BE | WWW.BEASENSORS.COM

BEA hereby declares that the MILAN is in conformity with the basic requirements and the other relevant provisions of the directive 2014/30/EU (EMC) and 2011/65/EU (RoHS).

The complete declaration of conformity is available on our website.

This product should be disposed of separately from unsorted municipal waste