



1 NO OBSTACLES DETECTED,
NO ALERTS



2 FAR OBSTACLE DETECTED,
VISUAL AND ACOUSTIC
ALERTS

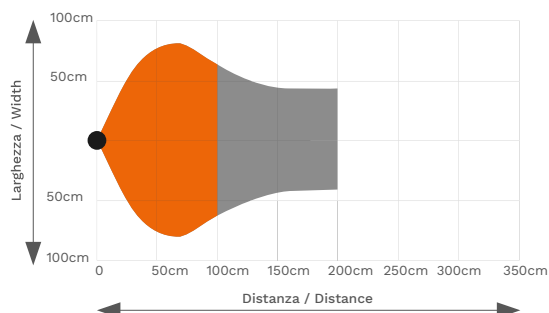


3 CLOSE OBSTACLE DETECTED,
INCREASED VISUAL AND
ACOUSTIC ALERTS

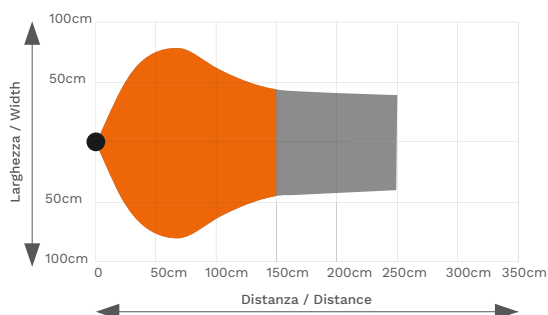
Reverse maneuver passive assistance system: **Safe&Alert** detects the presence of obstacles into the detecting range. Detection, provided by an ultrasonic sensor, produces visual and acoustic feedback alerting the operator about the risk. Feedback varies increasing as the distance from the obstacle decrease.

- ✓ **DETECTS PEDESTRIANS, OBJECTS AND STRUCTURES**
- ✓ **3 SELECTABLE PARAMETERS PRE-SETS**
- ✓ **QUICK AND EASY INSTALLATION**

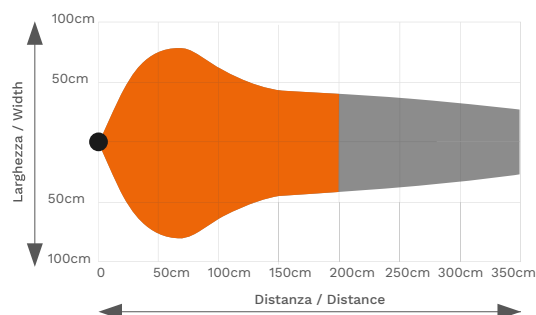
PRESET 1 Target:
Tubo/Tube ø8,5cm



PRESET 2 Target:
Tubo/Tube ø8,5cm



PRESET 3 Target:
Tubo/Tube ø8,5cm



System architecture is based on the display as main element. Once connected to the vehicle it provides power supply to the sensor and manages incoming and outgoing signals.

KIT CONTENTS

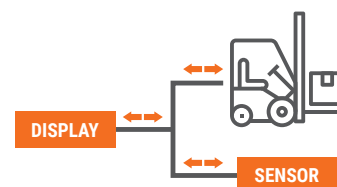
Display kit inclusive of:

- MiniMind advanced display and related brackets;
- connectors/contacts/seals kit.

Sensor kit inclusive of:

- CySens ultrasonic sensor;
- connecting cable;
- brackets, bolts, washers kit;
- connectors/contacts/seals kit.

User manual and CE Conformity Declaration



GENERAL FEATURES

Number of sensors	1
Operating voltage	10-36VDC
Activation trigger voltage	10-36VDC
Operating current	500mA max
Output	not available
Applied norms/directives	2006/42/CE - 2014/30/CE - UNI EN ISO 12100
Official normative definition	safety component

SENSOR TECHNICAL FEATURES

Technology	ultrasound
Operating Frequency	40kHz
Number of transmitters	1
Number of receivers	1
Response time	100ms
Dimensions	130mm x 80mm x 80mm
IP rating	IP62 min
Temperature range	-30°C / +80°C (electronic parts)

DISPLAY TECHNICAL FEATURES

Visual feedback type	not adjustable
Acoustic feedback type	Pulsing piezoelectric buzzer - variable frequency
Sound pressure level	85dB max (not adjustable)
IP rating	IP50
Temperature range	-30°C / +80°C (electronic parts)



1 NO OBSTACLES DETECTED,
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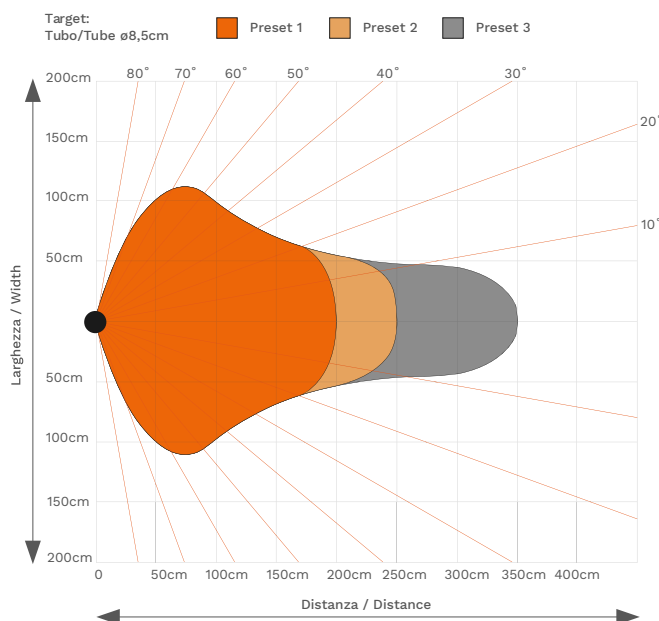


3 CLOSE OBSTACLE DETECTED,
INCREASED VISUAL AND
ACOUSTIC ALERTS

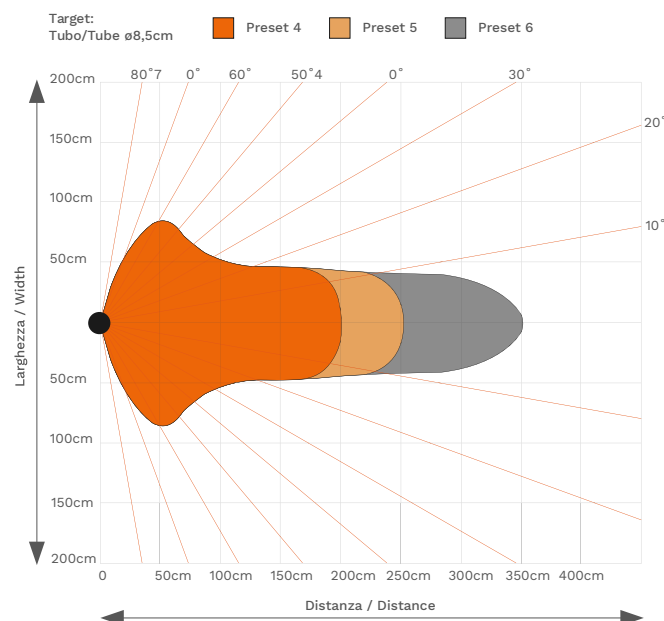
Safe&Alert+ suits to medium/large vehicles or, in general, when a wider detection is required. In case of presence of pedestrians, objects as well of structures in the detection range during the reverse maneuver the operator is alerted with visual and acoustic variable alerts.

- ✓ **DETECTS PEDESTRIANS, OBJECTS AND STRUCTURES**
- ✓ **6 SELECTABLE PARAMETERS PRE-SETS**
- ✓ **DETECTION WIDTH UP TO 2,5 M**
- ✓ **QUICK AND EASY INSTALLATION**

PRESETS 1 - 2 - 3



PRESETS 4 - 5 - 6



System architecture is based on the display as main element. Once connected to the vehicle it provides power supply to the sensor and manages incoming and outgoing signals.

KIT CONTENTS

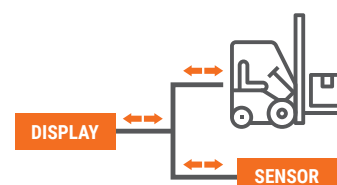
Display kit inclusive of:

- MiniMind advanced display and related brackets;
- connectors/contacts/seals kit.

Sensor kit inclusive of:

- CySens ultrasonic sensor;
- connecting cable;
- brackets, bolts, washers kit;
- connectors/contacts/seals kit.

User manual and CE Conformity Declaration



GENERAL FEATURES

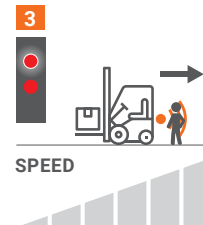
Number of sensors	1
Operating voltage	10-36VDC
Activation trigger voltage	10-36VDC
Operating current	500mA max
Output	not available
Applied norms/directives	2006/42/CE - 2014/30/CE - UNI EN ISO 12100
Official normative definition	safety component

SENSOR TECHNICAL FEATURES

Technology	ultrasound
Operating Frequency	40kHz
Number of transmitters	1
Number of receivers	3
Response time	100ms
Dimensions	130mm x 80mm x 80mm
IP rating	IP62 min
Temperature range	-30°C / +80°C (electronic parts)

DISPLAY TECHNICAL FEATURES

Visual feedback type	RGB LEDs (not adjustable)
Acoustic feedback type	Pulsing piezoelectric buzzer - variable frequency
Sound pressure level	85dB (not adjustable)
IP rating	IP50
Temperature range	-30°C / +80°C (electronic parts)



When the sensor, placed on the rear part of the vehicle, detects an obstacle **Safe&Stop**, immediately alert the operator through visual and acoustic alerts. In addition the system can intervene on the speed of the vehicle (*) in two steps strongly reducing the risk of collision and accident.

(*) to be confirmed according to the vehicle features

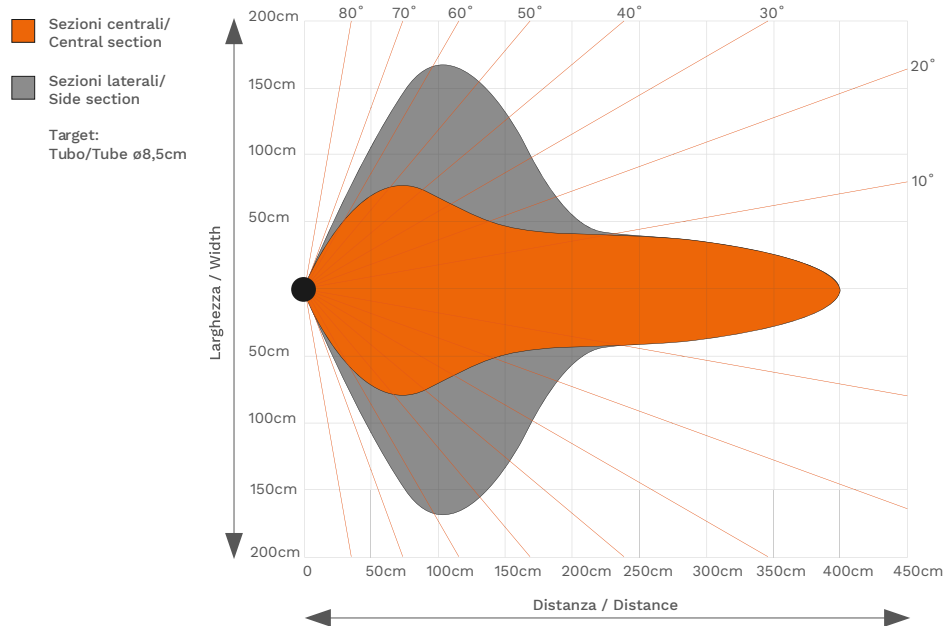
✓ **ULTRASONIC SENSOR**

✓ **DETECTION DISTANCE UP TO 4 M**
DETECTION WIDTH UP TO 3 M (SIDE RECEIVERS CAN'T BE DE-ACTIVATED)

✓ **MINIMIND ADVANCED DISPLAY**

✓ **COMPACTNESS FOR MAXIMUM INTEGRATION**

✓ **WIDE RANGE OF CUSTOMIZABLE PARAMETERS**



System architecture is based on the display as main element. Once connected to the vehicle it provides power supply to the sensor and the interfacing with the vehicle.

KIT CONTENTS

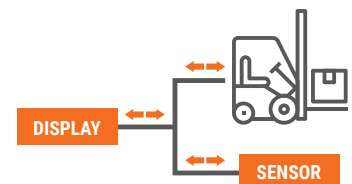
Display kit inclusive of:

- MiniMind advanced display and related brackets;
- connectors/contacts/seals kit.

Sensor kit inclusive of:

- CySens ultrasonic sensor;
- connecting cable;
- brackets, bolts, washers kit;
- connectors/contacts/seals kit.

User manual and CE Conformity Declaration



GENERAL FEATURES

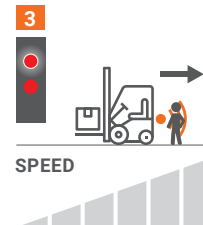
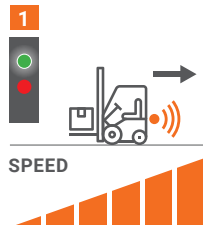
Number of sensors	1
Operating voltage	10-36VDC
Activation trigger voltage	10-36VDC
Operating current	500mA max
Outputs	1x relay out COM/NC/NO for A1 status (yellow alarm and optional sensor) 1x relay out COM/NC/NO for A2 status (red alarm)
Temperature range	-30°C / +80°C (electronic parts)
Applied norms/directives	2006/42/CE - 2014/30/CE - UNI EN ISO 12100
Official normative definition	safety component

SENSOR TECHNICAL FEATURES

Technology	ultrasound
Operating Frequency	40kHz
Number of transmitters	1
Number of receivers	3
Response time	100ms
Dimensions	130mm x 80mm x 80mm
IP Grade	IP62 min
Temperature range	-30°C / +80°C (electronic parts)

DISPLAY TECHNICAL FEATURES

Visual feedback type	RGB LEDs (adjustable brightness)
Acoustic feedback type	Piezoelectric buzzer
Sound pressure level	85dB max (adjustable)
IP Grade	IP50
Temperature range	-30°C / +80°C (electronic parts)



Safe&Stop+, suiting to vehicles wider than 1,5m, immediately alert the operator through visual and acoustic alerts. Detection is based on a pair of CySens sensors installed in the rear part of the vehicle. In addition the system can intervene on the speed of the vehicle (*) in two steps strongly reducing the risk of collision and accident.

(*) to be confirmed according to the vehicle features

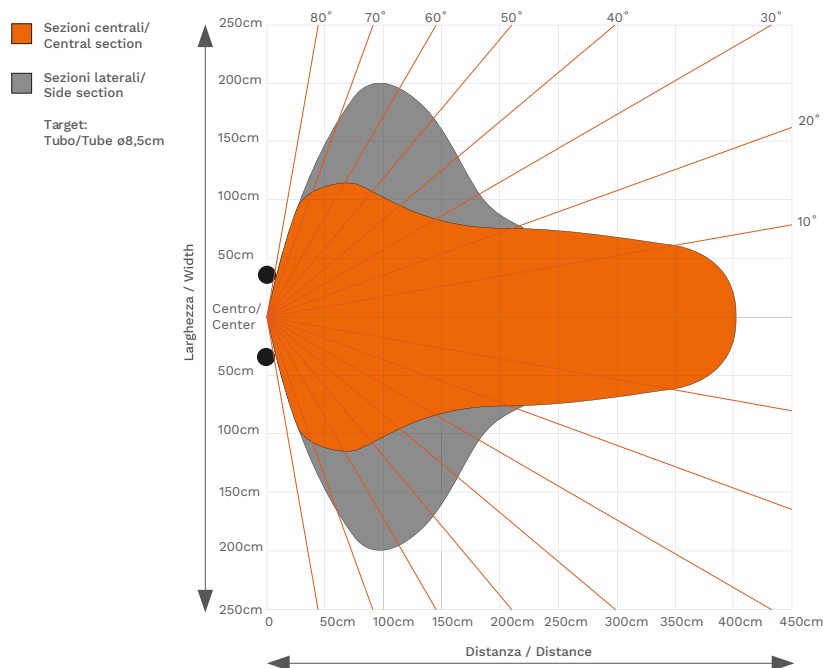
✓ **TWO ULTRASONIC SENSORS**

✓ **DETECTION DISTANCE UP TO 4 M**
DETECTION WIDTH UP TO 4 M (SIDE RECEIVERS CAN'T BE DE-ACTIVATED)

✓ **MINIMIND ADVANCED DISPLAY**

✓ **COMPACTNESS FOR MAXIMUM INTEGRATION**

✓ **WIDE RANGE OF CUSTOMIZABLE PARAMETERS**



System architecture is based on the display as main element. Once connected to the vehicle it provides power supply to the sensors and the interfacing with the vehicle.

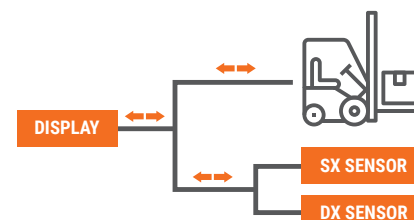
KIT CONTENTS

Display kit inclusive of:

- MiniMind advanced display and related brackets;
- connectors/contacts/seals kit;

Sensor kit inclusive of:

- CySens ultrasonic sensor pair;
- connecting cables;
- brackets, bolts, washers kit;
- connectors/contacts/seals kit.



User manual and CE Conformity Declaration

GENERAL FEATURES

Number of sensors	2
Operating voltage	10-36VDC
Activation trigger voltage	10-36VDC
Operating current	500mA max
Output	1x relay out COM/NC/NO for A1 status (yellow alarm and optional sensor) 1x relay out COM/NC/NO for A2 status (red alarm)
Applied norms/directives	2006/42/CE - 2014/30/CE - UNI EN ISO 12100
Official normative definition	safety component

SENSOR TECHNICAL FEATURES

Technology	ultrasound
Operating Frequency	40kHz
Number of transmitters	1
Number of receivers	3
Response time	100ms
Dimensions	130mm x 80mm x 80mm
IP Grade	IP62 min
Temperature range	-30°C / +80°C (electronic parts)

DISPLAY TECHNICAL FEATURES

Visual feedback type	RGB LEDs (adjustable brightness)
Acoustic feedback type	Piezoelectric buzzer
Sound pressure level	85dB max (adjustable)
IP Grade	IP50
Temperature range	-30°C / +80°C (electronic parts)



Professional double channel rear view kit for the surveillance of partially or totally blind areas. System provides a panoramic high resolution vision also in absence of light.

- ✓ **HIGH QUALITY IMAGE**
- ✓ **SUITS TO A WIDE RANGE OF INDUSTRIAL VEHICLES**
- ✓ **WATERPROOF IR BALL CAMERA**
- ✓ **COMPACTNESS FOR EASY ON-BOARD INTEGRATION**



System provides an integrated DC/DC converter for maximum versatility. The system architecture, with all the connection with the vehicle starting from the powerbox, makes installation quick and easy. The pre-made molded connection between the modules guarantee the maximum connection reliability.

KIT CONTENT

Monitor kit inclusive of:

- 5" monitor;
- universal bracket.

Camera kit inclusive of:

- IR Ball camera;
- 3 m connecting cable;
- bracket, screws, bolts, washers kit.

Powerbox kit inclusive of:

- powerbox/splitter with channel change and voltage reduction function.

GENERAL FEATURES

Operating voltage	12-48VDC
Triggering voltage	12-48VDC
Operating current	500mA max
Number of cameras (max)	2 (with automatic triggering)
Operating temperature	-30°C / +70°C

MONITOR TECHNICAL FEATURES

Screen dimensions	5"
TFT	TFT
Ratio	4:3
Resolution	307x200 pixels
Brightness	200 cd/m ²
Outline dimensions	126.5mm x 100mm x 15mm
IP rating	IP50

CAMERA TECHNICAL FEATURES

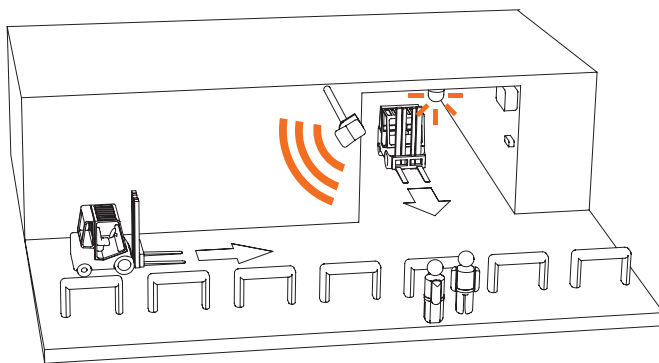
View angle	110°
Resolution	500x582 pixels
IP rating	IP68
Night view	15 infrared leds
Night view distance	8m max



The microwave sensors, placed before intersections or crossing areas, detect traveling vehicles revealing their presence through visual (flashing light) and acoustic (beacon) alarms.

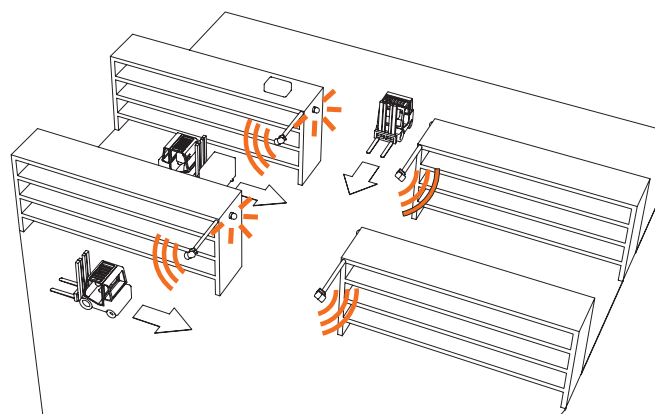
- ✓ **NO INSTALLATION ON THE VEHICLES REQUIRED**
- ✓ **FLEXIBLE TO FIT TO ANY LAYOUT CONFORMATION**
- ✓ **INTEGRABLE WITH TRAFFIC LIGHTS, ELECTRIC DOOR/GATE LOCKS AND OTHER DEVICES***

** requires specific technical evaluation*



SafeTraffic, in its minimum configuration, is made by a sensor (installed in proximity of the area to surveil), an alert unit, and a main control unit. Vehicles, acceding or not to the surveilled area, don't need any kind of installed device.

Everytime a truck enters the surveilled area SafeTraffic detects it through the microwave sensor. System is fully autonomous without the operator having to perform any operation. System automatically activates the related visual and acoustic alerts. Active areas can be freely defined according to specific needs.



Crossing, intersections, ends of long passages, blind spots always represent a risk in workplaces. In any industrial environment where vehicles and pedestrians simultaneously operate, accidents and injuries are likely to happen. **SafeTraffic** is an auxiliary system allowing to protect everyone operating in the workplace designed areas. **SafeTraffic** can detect incoming vehicles alerting other workers through visual and acoustic alerts.

KIT CONTENTS (minimum configuration)

- Control unit kit
- Sensor kit
- Alert unit kit

CONTROL UNIT TECHNICAL FEATURES

Operating voltage	230 VAC
Available inputs	4
Available outputs	4
Output type	ON/OFF
Dimensions	250mm x 150mm x 100mm
Customizable parameters	alarms duration, input/output pairing, output voltage

SENSOR TECHNICAL FEATURES

Operating voltage	12-24 VAC / 12-24 VDC
Detection range	from 1 to 10m (adjustable)
Detection speed	0.1 m/s min
IP rating	IP65
Dimensions	160mm x 95mm x 110mm
Customizable parameters	sensitivity, detection direction, alarm duration

ALERT UNIT TECHNICAL FEATURES

Operating voltage	12-24 VAC / 12-24 VDC
Technology	LED
Sound pressure level	65 db min - 105 db max
Type of visual feedback	constant or pulsing
Dimensions	90mm x 80mm
Customizable parameters	Type of visual feedback, volume, tone

SafeLed



SafeLight



SafeLed

Device for visual safety. SafeLed, based on LED technology, alerts pedestrians about the incoming vehicle through a elliptical light beam on the floor.

- ✓ **IDEAL FOR HIGHLY NOISY ENVIRONMENT**
- ✓ **WIDE VOLTAGE RANGE (9-110 V)**
- ✓ **SUITABLE FOR OUTDOOR USE**

SafeLight

Device for visual safety. SafeLight, based on LED technology, highlight the maneuver range of the vehicle through the projection of a red linear beam on its sides. Pedestrians are alerted about the minimum distance to be kept from the vehicle.

- ✓ **WIDE VOLTAGE RANGE (9-110 V)**
- ✓ **LED TECHNOLOGY**
- ✓ **EASY CONNECTION/INSTALLATION**

SafeLed

The die-casted aluminum outer body guarantees the maximum robustness. Compactness makes installation quick and easy.

KIT CONTENTS

Safety light kit inclusive of:

- LED light;
- bracket, screws, bolts, washers kit.

GENERAL FEATURES

Operating voltage	9-110VDC
Operating current	750mA max
Beam shape	elliptical
Beam color	blu
IP rating	IP68
Outline dimensions	130mm x 90mm x 80mm



SafeLight

Robustness is ensured by a die-casted aluminum outer body with plastic front cover. Compactness makes installation quick and easy.

KIT CONTENTS

Safety light kit inclusive of:

- LED light;
- IP67 connector;
- bracket, screws, bolts, washers kit.

GENERAL FEATURES

Operating voltage	9-110VDC
Operating current	750mA max
Beam shape	linear
Beam color	red
IP rating	IP67
Outline dimensions	180mm x 50mm x 50mm