



Classic and Classic-ELV

Pedestrian crossing lighting systems

Pedestrian crossing lighting systems

At night and in poor visibility hours, the pedestrian crossings must be properly illuminated and signaled:

SIGNAL

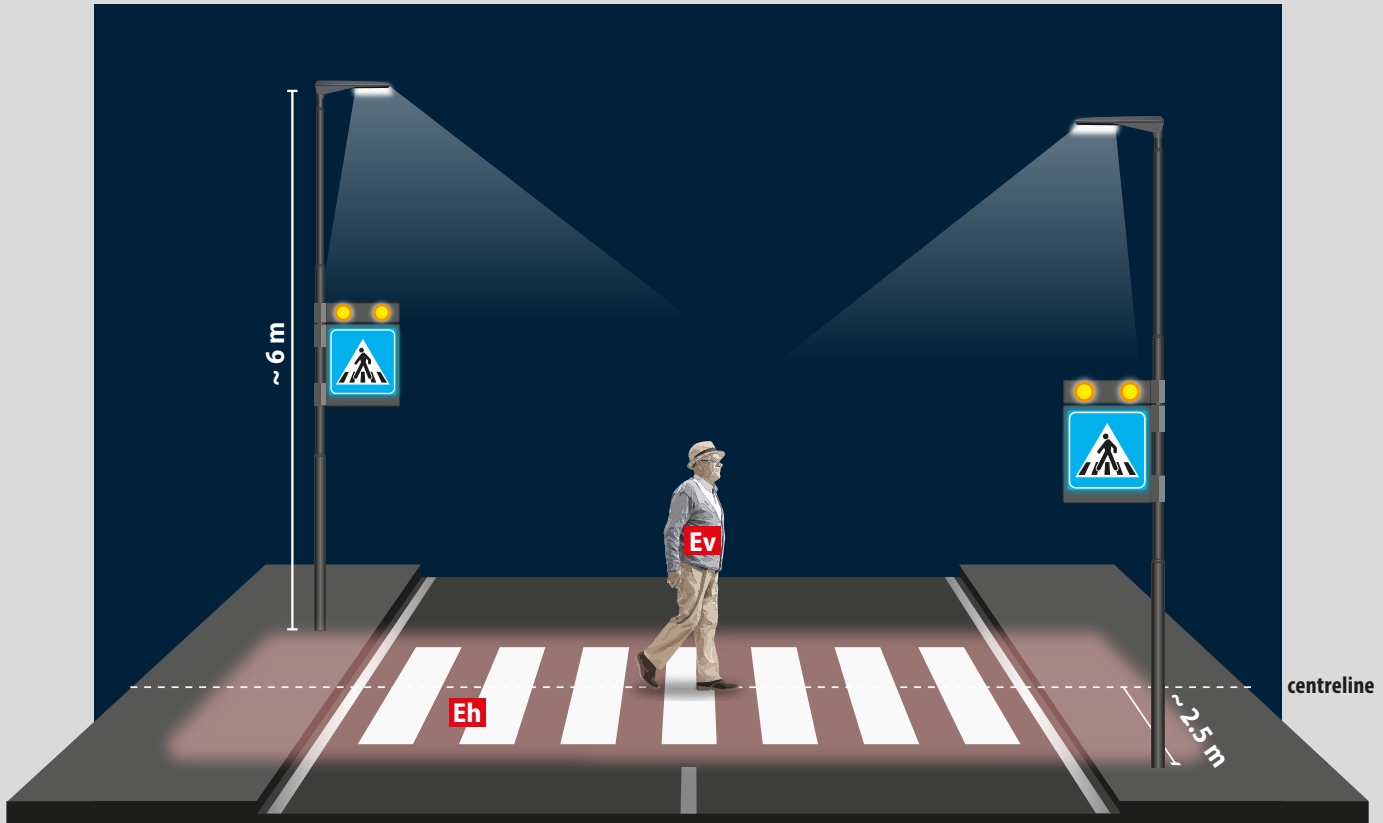
using LED flashers certified according to **EN 12352** and LED backlit signals according to **UNI 12899**.

ILLUMINATE

an horizontal plan, highlighting the crossing with a minimum recommended light level of 100 lux (average) **and a vertical plan**, lighting perfectly the body of pedestrians making them visible, starting from the waiting area, extremely important factor to prevent accidents on crossings.

*The LED luminaires **Talos G** and **Talos N** have been designed with a dedicated optic specifically to illuminate crossings, creating a positive contrast between the pedestrian and the surrounding environment, producing a **very high vertical illumination** level according to **EN13201**.*





Luminous flux [lumen]

The luminous flux is measured in lumens and represents the quantity of light produced from a fixture, hence it can't be measured on a point or surface.

It is a task of the optics to distribute this light properly on the crossing. For instance, a light fixture producing 15,000 lm, may provide less light on the crossing of a fixture producing 12,000 lm.

Illuminance [lux]

The illuminance is the quantity of light measurable on a plan of the crossing. It is measured in lux and in most of the cases the determining factor is the average illuminance and the overall uniformity (ratio between min lux and avg lux).

Horizontal illuminance E_h [lux]

Is the quantity of light measured on the horizontal plan [E_h] of the crossing. The high level achievable and the super concentrated beam allow an unmatched visibility and ease of **identification from distance of the crossing**.

Vertical illuminance E_v [lux]

Is the quantity of light measured on the vertical plan [E_v] of the crossing. The high level achievable allows the **maximum visibility of pedestrians**, creating a positive contrast with the surrounding environment.

APL Classic is the first **signalling and illuminating system for pedestrian crossings** designed to achieve the highest levels of safety for pedestrians using the latest technologies.

Without APL



With APL

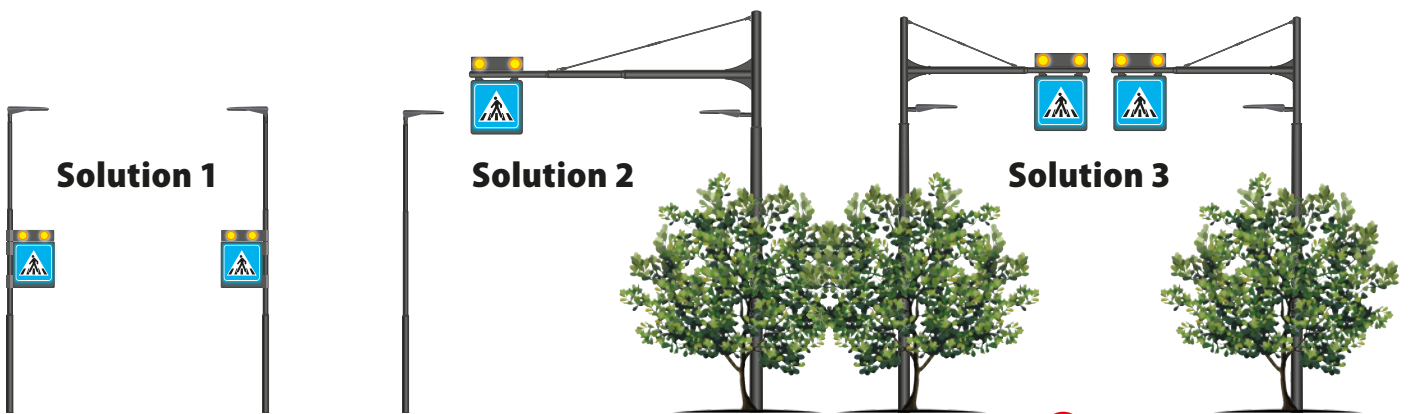
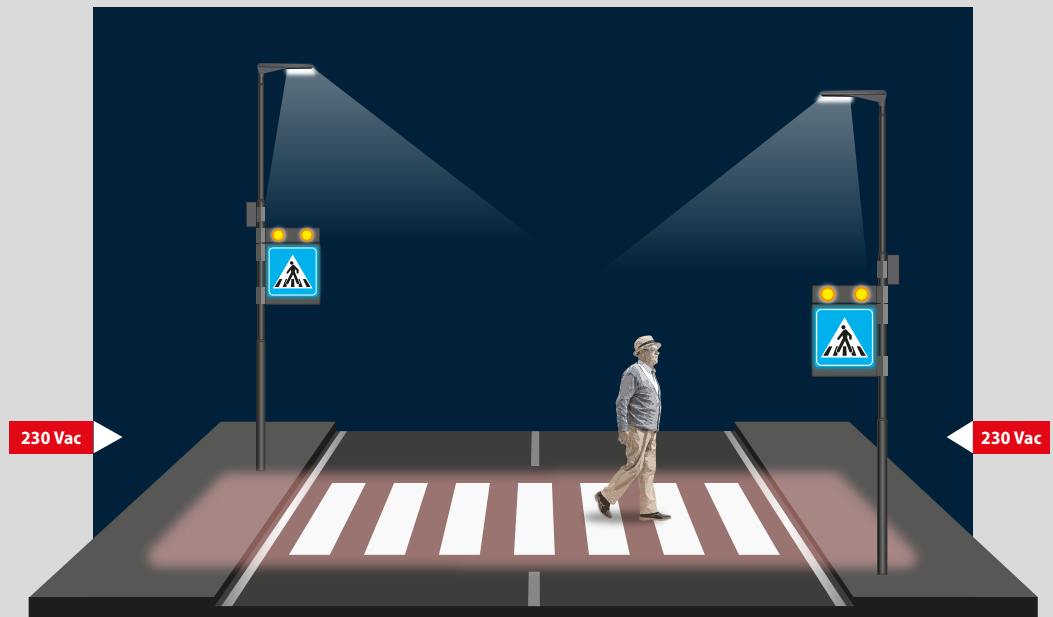


Components of APL Classic system

LED streetlights	LED backlit signs - double side		LEDBOX	
Talos G	60 x 60	90 x 90 slim	4 projectors Basic 102	2 projectors Basic 201
				
Talos N	Power supply		ELV control unit	
	Power supply/Battery kit		(Extra Low Voltage)	
				

APL Classic

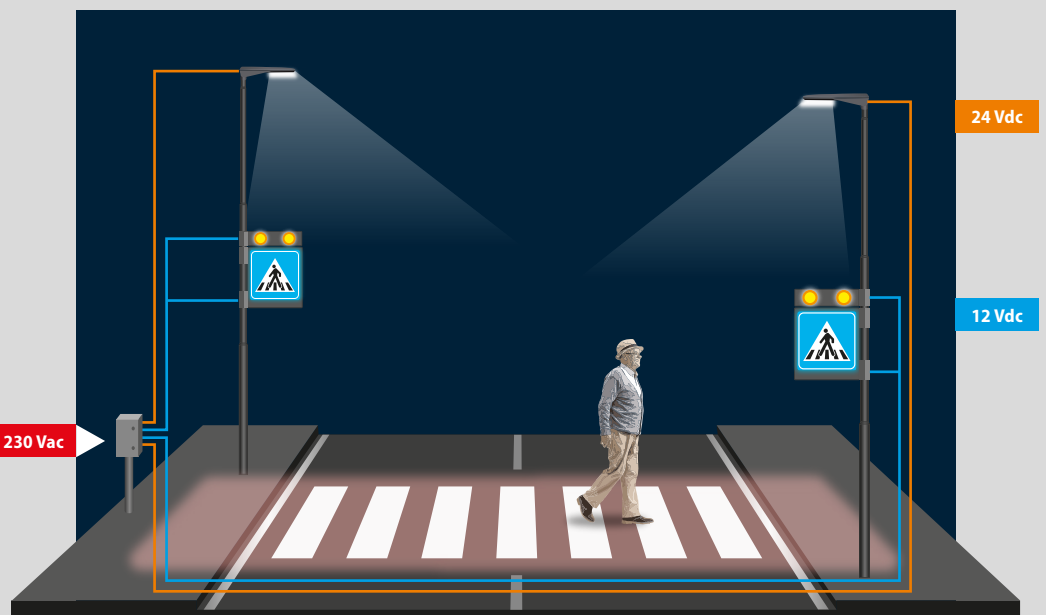
The flashing lights are always active while the street lights and backlit signs only work at night.



Solutions 2 and 3 are suitable for installations on roads with limits above 50 km/h (eg. )

APL Classic-ELV

(Extra Low Voltage) is the first system for the signaling and lighting of pedestrian crossings in extra low voltage which makes it ideal for installations where the 230V power supply is available only on one side of the road, making the installation procedure and the crossing of the street with cables, safer and easier.



Components



TALOS G



TALOS N



DOUBLE SIDE
90X90 SLIM



DOUBLE SIDE
60X60

LED Streetlights with dedicated double asymmetric optic targeting the highest classes **EV** of the **EN13201**.

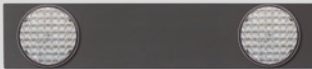
Our **backilluminated LED signs** are extremely important to make the pedestrian crossing visible from long distances. The perfect uniformity and luminance values of the signs are our competitive advantage. The backilluminated sign LED 90x90 can be equipped with lower LED Trilogy bar.

Compliance	EN13201	
Certification		
LED optics	Asymmetric L - R Specific for pedestrian crossing	
Input voltage	230 VAC	24 VDC
Power consumption	TALOS G TALOS N	137 W 68 W
Material	Die-cast aluminum SUPERCAS[®]	
Mounting	Ø60	
Dimensions	TALOS G TALOS N	690 x 360 x 225 mm 500 x 260 x 195 mm
Compliance	EN12899	
LED colour	○ Double side	
Input voltage	230 VAC - 12 VDC	
Light emission area	90 x 90 cm	60 x 60 cm
Power consumption	51 W	36 W
Mounting	Tilting system	Ø60 - Ø90 mm Band-it
Dimensions	1000 x 1000 x 62 mm (w/o bracket)	645 x 735 x 68 mm (w/o bracket)

Components




LEDBOX BASIC 102



LEDBOX BASIC 201

LEDBOXes are devices with certified LED projectors to be combined with our backlit to increase visibility of the pedestrian crossing especially during the day.

Certification	Basic 201 Basic 102	EN12352 - L8H EN12352 - L2H
LED colour		Basic 201 x 2 (single side) Basic 102 x 4 (double side)
Input voltage	230 VAC	12 VDC
Power consumption	Basic 201 Basic 102	15 W 15 W
Mounting	Pole	Ø60 - Ø90 Band-it
Box dimensions	600 x 160 x 60 mm 900 x 210 x 120 mm	

Control and power supply units



CONTROL UNIT
CLASSIC ELV

Fiberglass cabinet.
Pole with fixing
bracket.
Power supplies,
protections and
flashing control
module.



POWER SUPPLY/
BATTERY KIT

**Power Supply/
Battery Kit** has
been created for
connection of the
public lighting
network (available
only at night), in
addition to a flashing
module for the
LEDBox (L-50), it is
equipped with a
battery for operating
the lights also during
daytime.

Battery: 9Ah - 18Ah
Flashing: L50
Flash 10%
Mounting: band-it /
pole Ø90 mm









Classic - solution 4

Pedestrian crossing lighting system

Solution 4



Components of solution 4 - APL Classic

LED streetlights	LED backlit signs - double side		LEDBOX	Power supply/ Battery kit	Time Box Astro
Trilogy N	90 x 90 slim	90 x 90 bold	2 projectors Basic 201		
					



The **APL Classic Solution 4** originated from a need to offer a product that can be used as a retrofit on old installations and for some applications where it is not possible to lay a pole on one side of the road.

This solution, however, does not comply with the **UNI/TS 11726** because it only guarantees good horizontal illumination but not the vertical one that is necessary to make the pedestrian visible.

As you can see in **picture 1** a pedestrian crossing exactly on the axis is visible even if not illuminated correctly.

If the pedestrian crosses on another area (**picture 2**) for one traffic direction is going to be visible only thanks to the negative contrast that is created between its black shape and the background illuminated by the surrounding public lighting..

It is important to remember that, in order to prevent accidents, the pedestrian must be visible from the waiting areas and this solution does not reach an adequate level of vertical illuminance in such areas, especially on wide roads.



Solution 4

Power Supply/Battery Kit has been created for connection of the public lighting network (available only at night), in addition to a flashing module for the LEDBox (L-50), it is equipped with a battery for operating the lights also during daytime.

Time Box Astro has been created for connection to the 230V network (available 24 hours a day), and in addition to flashing module for the LEDBox (L-50), it is equipped with an astronomical switch that turns off the backlit sign and LED light fixtures during daytime

Solution 4 components



TRILOGY N

LED bar specifically designed for pedestrian crossing. The narrow optic is able to deliver very high horizontal values on the zebra crossing. It is used in combination with 90x90 backlit signs.

Compliance	EN13201
LED optics	Symmetric Specific for pedestrian crossing
Input voltage	230 VAC
Power consumption	45 W
Material	Aluminum - Adjustable bracket included
Dimensions	80 x 91 x 1000 mm (w/o bracket)

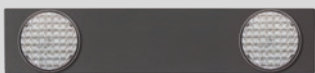


DOUBLE SIDE
90X90 SLIM

DOUBLE SIDE
90X90 BOLD

Our **backilluminated LED signs** are extremely important to make the pedestrian crossing visible from long distances. The perfect uniformity and luminance values of the signs are our competitive advantage. The backilluminated sign LED 90x90 can be equipped with lower LED Trilogy bar.

Compliance	EN12899	
LED colour	○ Double side	
Input voltage	230 VAC	
	SLIM	BOLD
Light emission area	90 x 90 cm	90 x 90 cm
Power consumption	51 W	46 W
Mounting	Tilting system	Tilting system
Dimensions	1000 x 1000 x 62 mm (w/o bracket)	1065 x 1103 x 200 mm (w/o bracket)



LEDBox BASIC 201

LEDBoxes are devices with certified LED projectors to be combined with our backlit LEDs in order to increase pedestrian crossing visibility especially during the daytime.

Compliance	Basic 201	EN12352 - L8H
LED optics	●	Basic 201 x 2 (single side)
Input voltage	12 VDC	
Power consumption	Basic 201	15 W
Mounting	Pole	Ø60 Band-it
Box dimensions	900 x 210 x 120 mm	

Control and power supply units



TIME BOX ASTRO

Time Box Astro has been created for connection to the 230V network (available 24 hours a day), and in addition to flashing module for the LEDBox (L-50), it is equipped with an astronomical switch that turns off the backlit sign and LED light fixtures during daytime.

Flashing: L50
Flash 10%
Mounting: band-it / pole Ø90 mm



POWER SUPPLY/
BATTERY KIT

Power Supply/Battery Kit has been created for connection of the public lighting network (available only at night), in addition to a flashing module for the LEDBox (L-50), it is equipped with a battery for operating the lights also during daytime.

Battery: 9Ah - 18Ah
Flashing: L50
Flash 10%
Mounting: band-it / pole Ø90 mm



Smart and Smart wireless

Pedestrian crossing lighting systems

Pedestrian crossing lighting systems

At night and in poor visibility hours, the pedestrian crossings must be properly illuminated and signaled:

SIGNAL

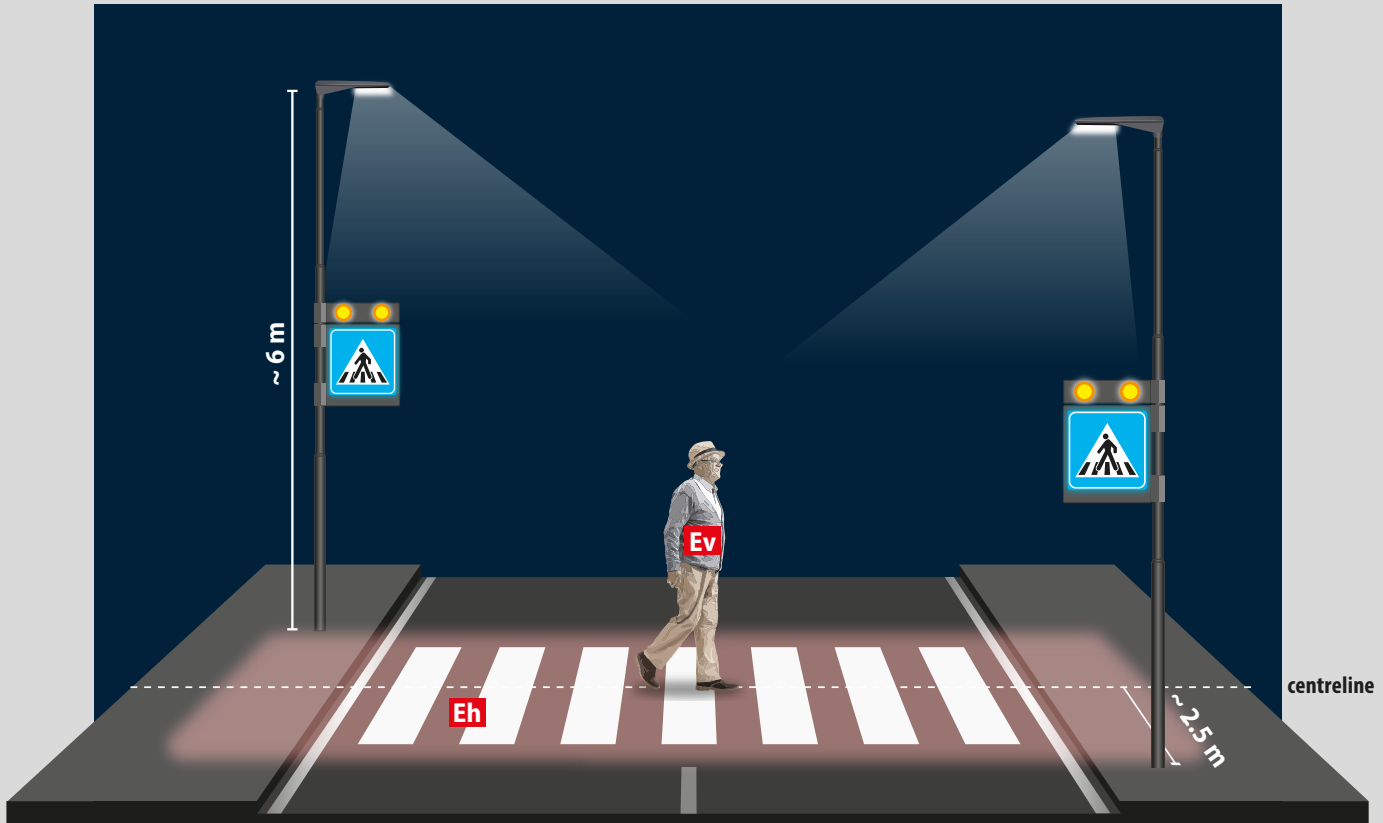
using LED flashers certified according to **EN 12352** and LED backlit signals according to **UNI 12899**.

ILLUMINATE

an horizontal plan, highlighting the crossing with a minimum recommended light level of 100 lux (average) **and a vertical plan**, lighting perfectly the body of pedestrians making them visible, starting from the waiting area, extremely important factor to prevent accidents on crossings.

*The LED luminaires **Talos G** and **Talos N** have been designed with a dedicated optic specifically to illuminate crossings, creating a positive contrast between the pedestrian and the surrounding environment, producing a **very high vertical illumination** level according to **EN13201**.*





Luminous flux [lumen]

The luminous flux is measured in lumens and represents the quantity of light produced from a fixture, hence it can't be measured on a point or surface.

It is a task of the optics to distribute this light properly on the crossing. For instance, a light fixture producing 15,000 lm, may provide less light on the crossing of a fixture producing 12,000 lm.

Illuminance [lux]

The illuminance is the quantity of light measurable on a plan of the crossing. It is measured in lux and in most of the cases the determining factor is the average illuminance and the overall uniformity (ratio between min lux and avg lux).

Horizontal illuminance E_h [lux]

Is the quantity of light measured on the horizontal plan [E_h] of the crossing. The high level achievable and the super concentrated beam allow an unmatched visibility and ease of **identification from distance of the crossing**.

Vertical illuminance E_v [lux]

Is the quantity of light measured on the vertical plan [E_v] of the crossing. The high level achievable allows the **maximum visibility of pedestrians**, creating a positive contrast with the surrounding environment.

APL Smart is the latest evolution of **signalling and lighting of pedestrian crossings** created to make them **interactive and safer**.






**1 -
Stand-by
40%**



**2 -
100%**



Components of APL Smart system

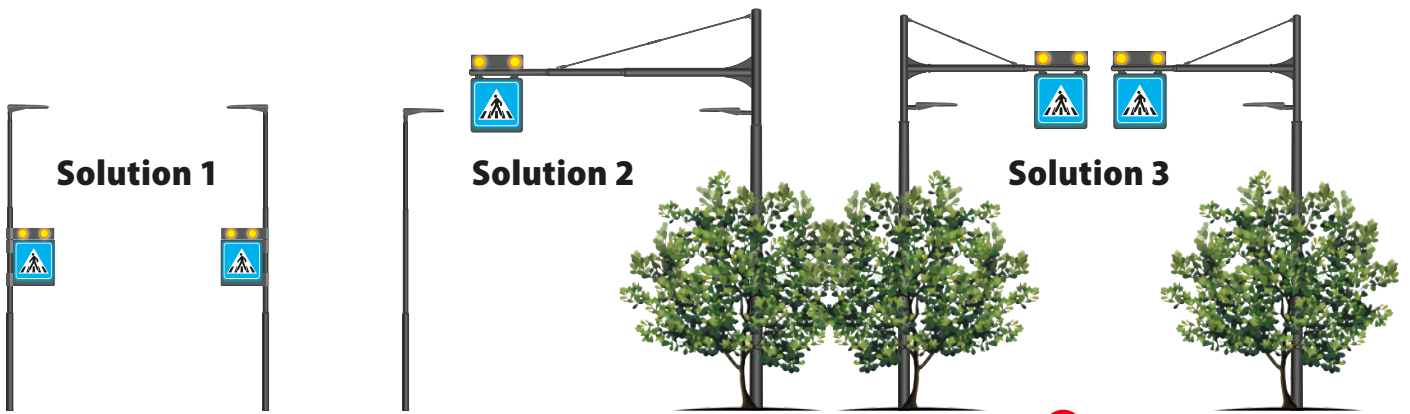
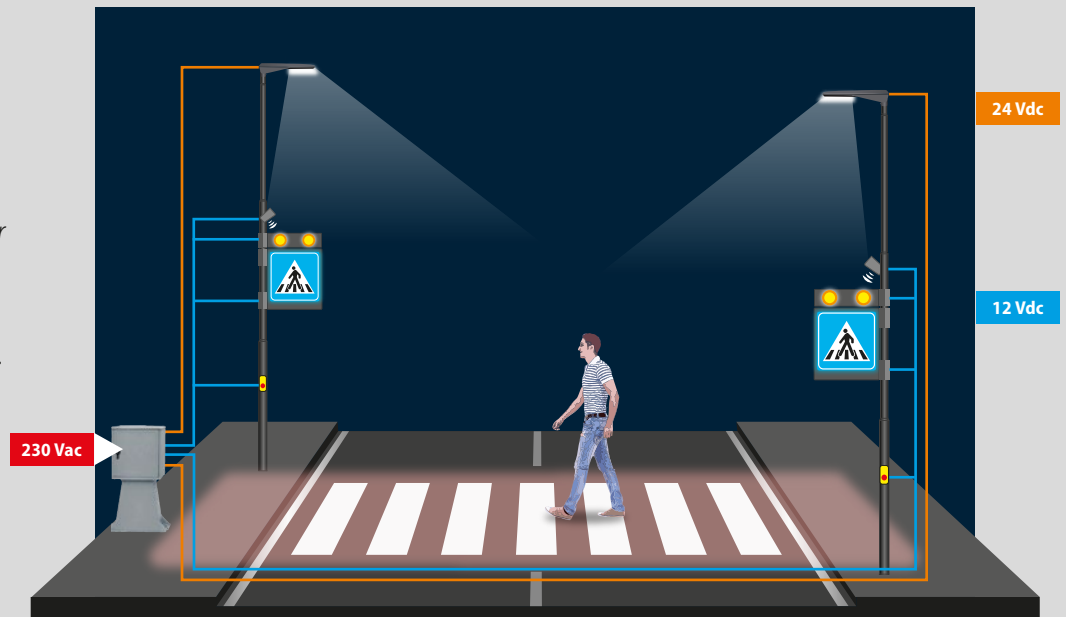
LED streetlights	LED backlit signs - double side		LEDBOX	
<p>Talos G</p> 	60 x 60	90 x 90 slim	4 projectors Basic 102	2 projectors Basic 201
				
	Control unit		Activation devices	
	APL Smart	APL Smart wireless	Sensor and push-button	Touch-button
				

APL Smart

1 - The system is activated by a **push-button** or by a **sensor**.

2 - Thanks to the intelligent dimming the lighting level for the pedestrian crossing goes **from 40% up to 100%**.

LED flashers start working.

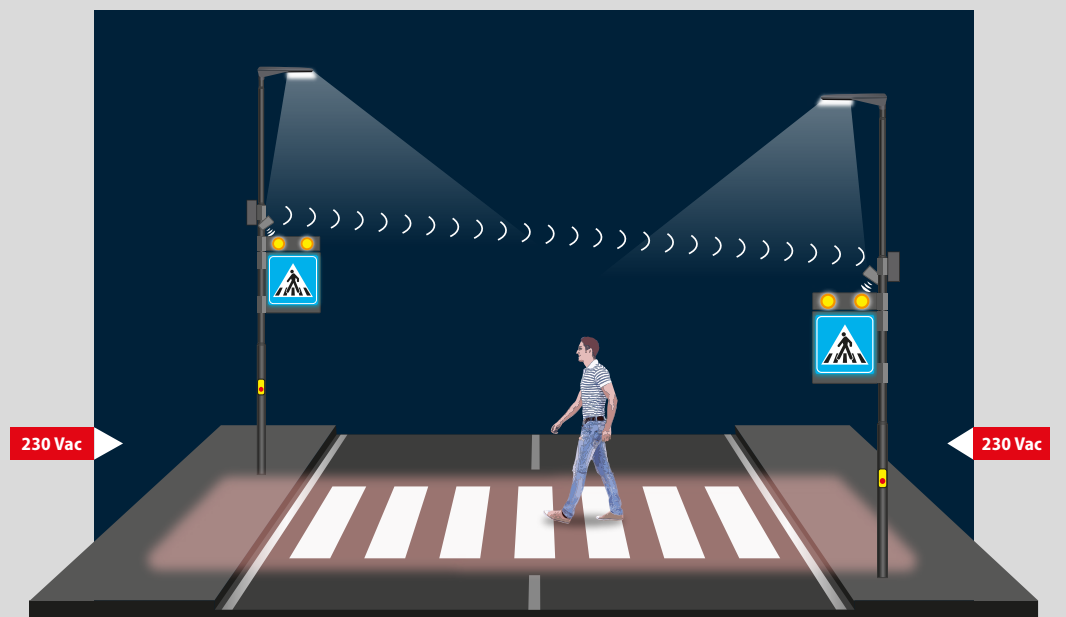


Solutions 2 and 3 are suitable for installations on roads with limits above 50 km/h (eg. **70**)

APL Smart wireless

Does not require wiring inside the road.

Available only with Talos G.



Components



TALOS G

LED Streetlights with dedicated double asymmetric optic targeting the highest classes **EV** of the **EN13201**.



DOUBLE SIDE
90X90 SLIM



DOUBLE SIDE
60X60

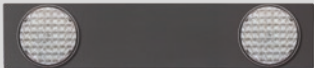
Our **backilluminated LED signs** are extremely important to make the pedestrian crossing visible from long distances. The perfect uniformity and luminance values of the signs are our competitive advantage. The backilluminated sign LED 90x90 can be equipped with lower LED Trilyon bar.

Compliance	EN13201	
Certification		
LED optics	Asymmetric L -R Specific for pedestrian crossing	
Input voltage	24 VDC - 230 VAC	
Power consumption	137 W	
Material	Die-cast aluminum SUPERCAS[®]	
Mounting	Ø60	
Dimensions	690 x 360 x 225 mm	
Compliance	EN12899	
LED colour	○ Double side	
Input voltage	12 VDC - 230 VAC	
Light emission area	90 x 90 cm	60 x 60 cm
Power consumption	51 W	36 W
Mounting	Tilting system	Ø60 - Ø90 mm Band-it
Dimensions	1000 x 1000 x 62 mm (w/o bracket)	645 x 735 x 68 mm (w/o bracket)

Components



LEDBOX BASIC 102



LEDBOX BASIC 201



SENSOR AND PUSH-BUTTON



TOUCH-BUTTON

LEDBOXes are devices with certified LED projectors to be combined with our backlit to increase visibility of the pedestrian crossing especially during the day.

	Certification	Basic 201 Basic 102	EN12352 - L8H EN12352 - L2H
	LED colour		Basic 201 x 2 (single side) Basic 102 x 4 (double side)
	Input voltage	12 VDC	
	Power consumption	Basic 201 Basic 102	15 W 15 W
	Mounting	Pole	Ø60 - Ø90 Band-it
	Box dimensions	600 x 160 x 60 mm 900 x 210 x 120 mm	
Activation devices. The sensor and the buttons make the system interactive and safer.	Certification		
	Input voltage	12 VDC	

Control and power supply units



CONTROL UNIT

Fiberglass cabinet, base, power supplies, timer, flashing control module, predisposition for Pb AGM battery, battery charging system.



POWER SUPPLY/
BATTERY KIT

Akzo900 powder coating metal cabinet, timer power supply, flashing/radio control module, battery charging system.

Battery: 9Ah Pb AGM
Mounting: band-it / pole Ø90 mm



Solar and Solar active

Pedestrian crossing lighting systems

Pedestrian crossing lighting systems

At night and in poor visibility hours, the pedestrian crossings must be properly illuminated and signaled:

SIGNAL

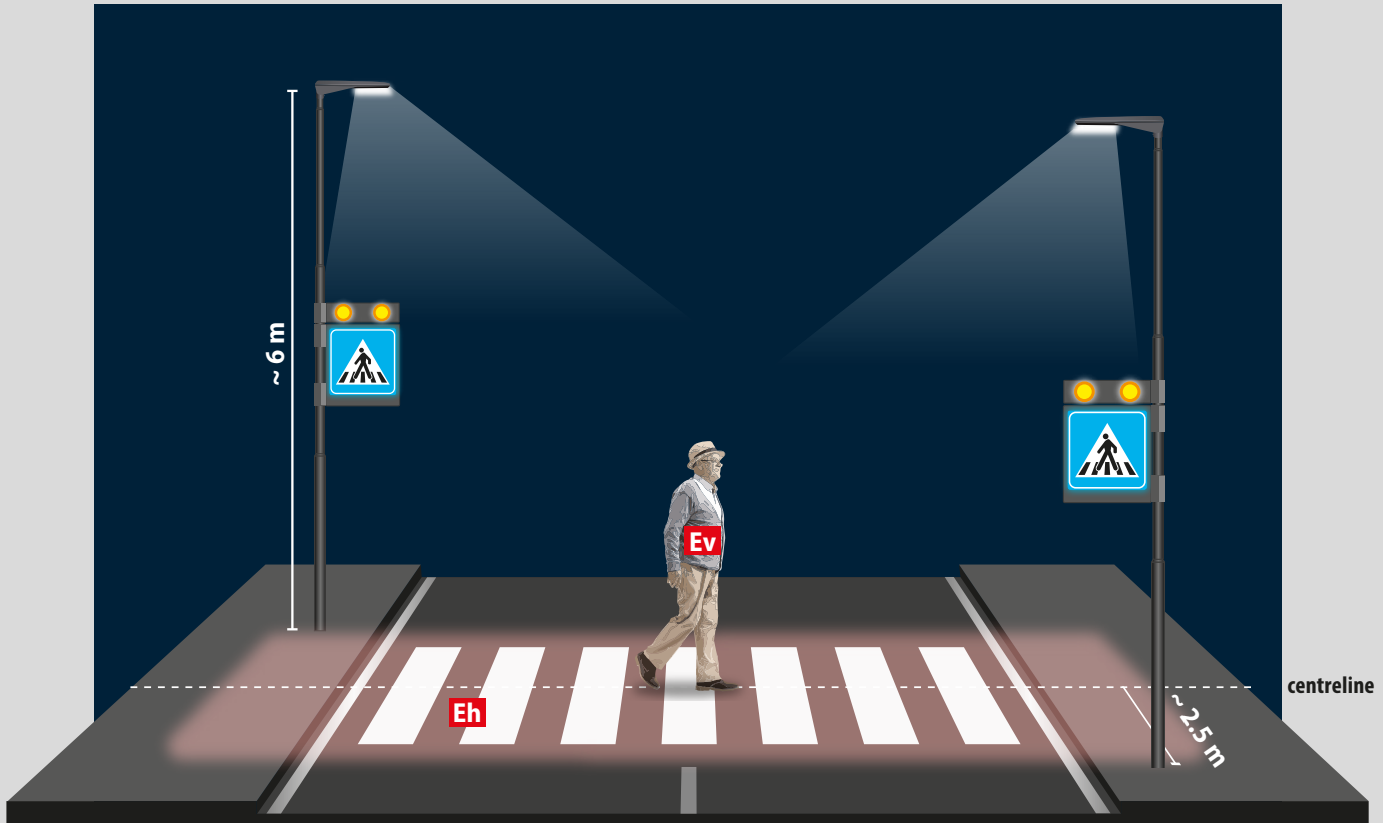
using LED flashers certified according to **EN 12352** and LED backlit signals according to **UNI 12899**.

ILLUMINATE

an horizontal plan, highlighting the crossing with a minimum recommended light level of 100 lux (average) **and a vertical plan**, lighting perfectly the body of pedestrians making them visible, starting from the waiting area, extremely important factor to prevent accidents on crossings.

*The LED luminaires **Talos G** and **Talos N** have been designed with a dedicated optic specifically to illuminate crossings, creating a positive contrast between the pedestrian and the surrounding environment, producing a **very high vertical illumination** level according to **EN13201**.*





Luminous flux [lumen]

The luminous flux is measured in lumens and represents the quantity of light produced from a fixture, hence it can't be measured on a point or surface.

It is a task of the optics to distribute this light properly on the crossing. For instance, a light fixture producing 15,000 lm, may provide less light on the crossing of a fixture producing 12,000 lm.

Illuminance [lux]

The illuminance is the quantity of light measurable on a plan of the crossing. It is measured in lux and in most of the cases the determining factor is the average illuminance and the overall uniformity (ratio between min lux and avg lux).

Horizontal illuminance E_h [lux]

Is the quantity of light measured on the horizontal plan [E_h] of the crossing. The high level achievable and the super concentrated beam allow an unmatched visibility and ease of **identification from distance of the crossing**.



Vertical illuminance E_v [lux]

Is the quantity of light measured on the vertical plan [E_v] of the crossing. The high level achievable allows the **maximum visibility of pedestrians**, creating a positive contrast with the surrounding environment.

APL Solar combines the technological advantages of our LED APL solutions with the need to install such systems in **areas not covered by AC network.**



Components of APL Solar system

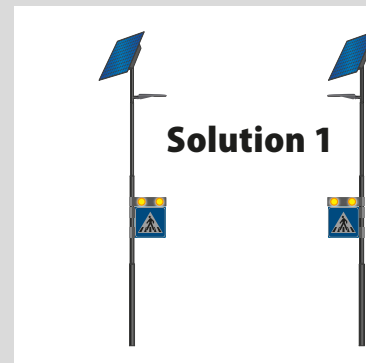
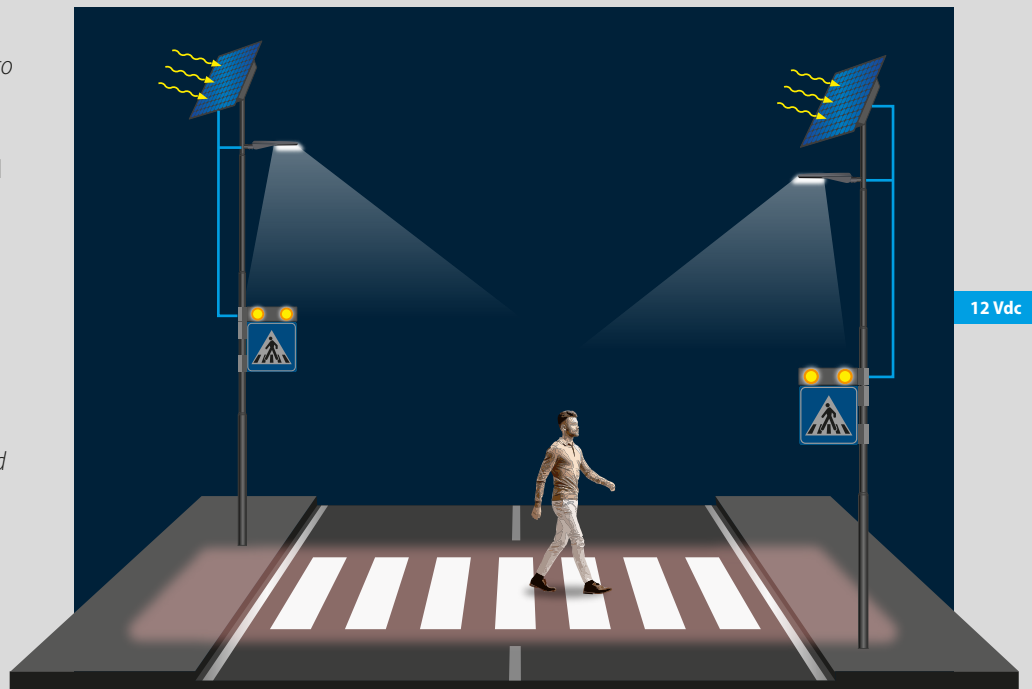
LED streetlights	LEDBOX	Photovoltaic kit	APL Solar active wireless module	APL Solar active activation devices
Talos N	4 projectors Basic 102	140 W		Sensor and push-button
				

APL Solar

Even if with lower power comparing to AC APL (APL Classic and APL Smart), the APL SOLAR (with Talos N 18W) can guarantee sufficient **horizontal and vertical illuminance** levels in compliance with the **EN 13201** and a good warning system thanks to the LED warning lights certified and approved according to **EN 12352**.

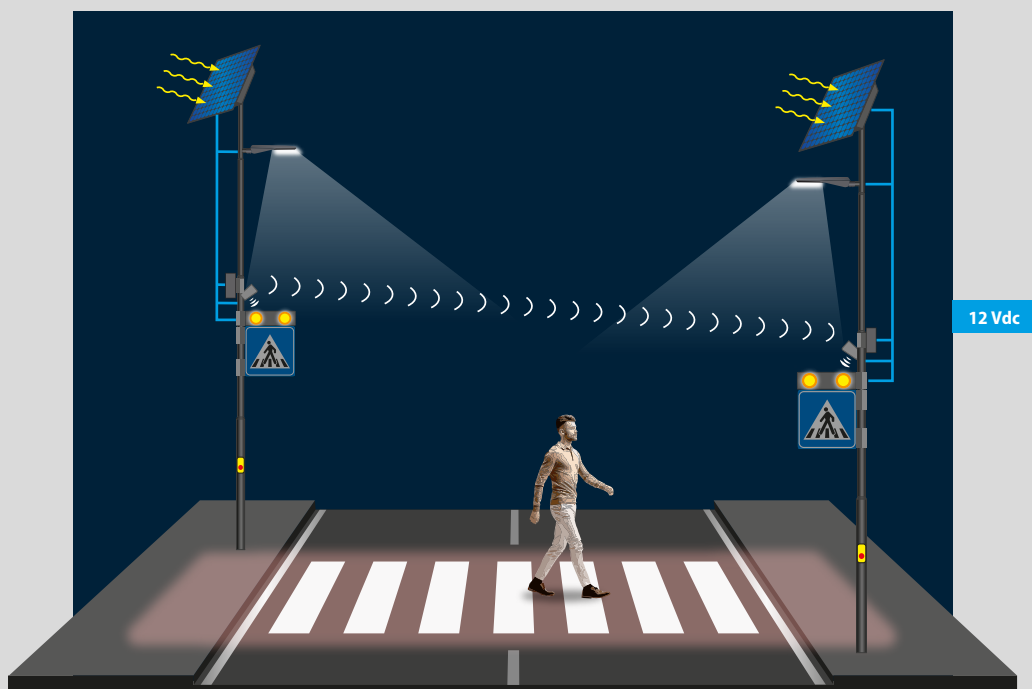
In the **Photovoltaic Kit** battery and charging regulator are integrated with the PV module. In this way we can avoid to use an external box.

Peak power **140 W**.



APL Solar active

- Lighting is activated automatically at night to allow a basic safety level and makes the crossing visible to drivers and pedestrians
- The LED flashers are activated by **push button or motion sensor**. A wireless connection activates immediately the flashers of the opposite side



Components



TALOS N

LED Streetlights with dedicated double asymmetric optic targeting the highest classes **EV** of the **EN13201**.

Compliance	EN13201
Certification	
LED optics	Asymmetric L - R Specific for pedestrian crossing
Input voltage	12 VDC
Power consumption	18 W
Material	Die-cast aluminum SUPERCAS[®]
Mounting	Ø60
Dimensions	500 x 260 x 195 mm



LEDBOX BASIC 102

LEDBOXes are devices with certified LED projectors to be combined with our backlit to increase visibility of the pedestrian crossing especially during the day.

Certification	UNI EN12352 - L2H
LED colour	Basic 102 x 4 (double side)
Input voltage	12 VDC
Power consumption	15 W
Mounting	Pole Ø60 - Ø90 Band-it
Box dimensions	600 x 160 x 60 mm



SENSOR AND PUSH-BUTTON

Activation devices. The sensor and the buttons make the system interactive and safer.

Certification	
Input voltage	12 VDC

Control and power supply units



WIRELESS CONTROL UNIT

Akzo900 powder coating metal cabinet, timer power supply, flashing/ radio control module, battery charging system.

Battery: 9Ah Pb AGM
Mounting: band-it / pole Ø90 mm



KIT FOTOVOLTAICO

The battery and the charging regulator are integrated with the PV module. In this way we can avoid to use an external box.

Peak power: 140 W
Battery: 90 Ah
Output voltage: 12 V
Mounting: pole Ø90 mm