

Velos

LED exit sign

Velos LED Exit Sign

Velos



Versatile emergency luminaire family with outstanding performance. Modern styling and high quality materials blend together perfectly to produce the Velos range of exit signs. Suitable for a wide variety of interiors with 2 options of legend panels that offer a maximum viewing distance of 30m up to 40m. The long life LED strip provides excellent uniform illumination of the legend, comfortably meeting the requirements of EN1838. Velos has an LED source with a rated life of more than 60.000 hours ensuring reliable operation and minimising onsite maintenance costs.

Specification:

Plastic white LED exit sign, maintained 1 or 3 hour duration, with 24 LED with manual, self-test or addressable testing capabilities and exit sign visible to 30 or 40 meters. As Cooper Velos.



Planning emergency signage

According to EN1838, exit signage should illuminate the definitive escape route to ensure that they can evacuate the building safely in the event of the mains power supply failure. Changes in levels, direction and at intersections along a corridor have to be taken into consideration when designing the emergency lighting scheme.

European law specifies that emergency signage should be visible at all times along an escape route, outlining the minimum size requirements, luminance levels and contrast ratios that have to be observed. In public spaces, exit signs must be lit whenever there are people in the building.

Legend:

Two exit sign legend types design to comply with current regulations:

- Legends according to European Health and Safety signs directive of 1996 requirements (Euro type).
- Legends according to ISO7010 & ISO3864 requirements (ISO type).



EURO type pictogram



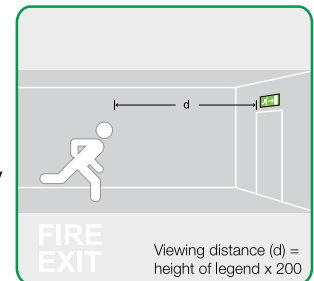
ISO type pictogram

Although both forms of legend are acceptable, only one type of design should be used in a building.

ISO type Legends are recommended for new installations.

Viewing distance:

- The viewing distance of an internally lit exit sign (ie. the distance from which the sign can be seen and understood) is calculated by multiplying the height of the legend by 200.
- Exit signs must be placed at any change in direction to indicate the route to the final exit door.



Solution

Velos complies with these requirements. Velos offers:

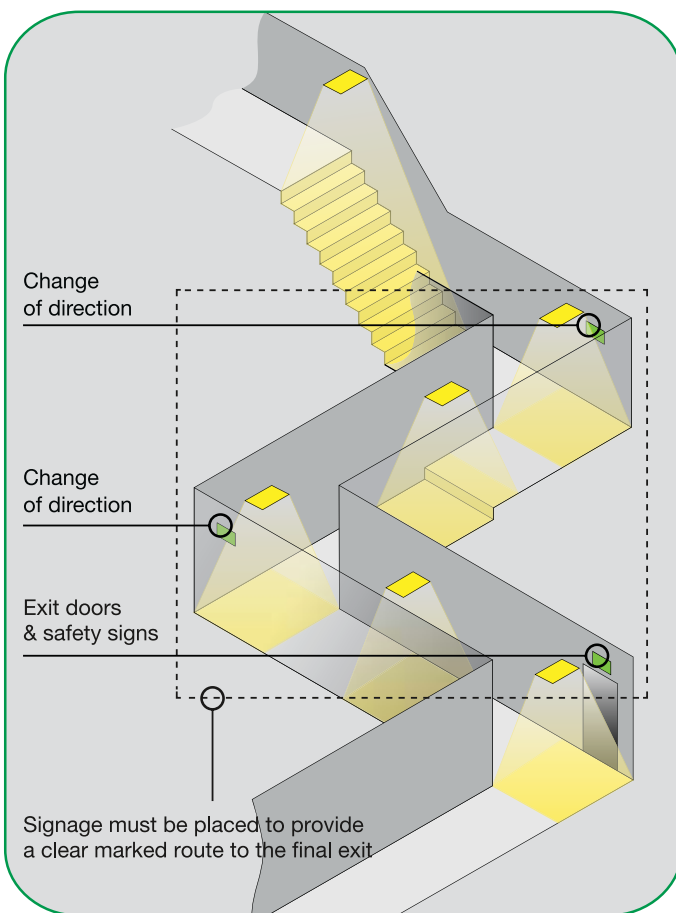
- A safety colour luminance of the exit legend performs at more than 240cd/m^2 on white surfaces.
- A viewing distance from 30 up to 40 metres.
- A choice of either EURO or ISO style legends.
- A wide variety of accessories (recessed base, suspension, wall mounting) making Velos applicable to all installations.

Delivering the right message

- Specific requirements have to be followed if the design and performance of the exit signage is to comply with European and UK standards.

Technical design:

- Mounting height: exit signs should be mounted at a minimum height of 2 meters above the floor.
- Luminance: the minimum safety colour luminance of the exit legend must be no less than 2cd/m^2 .



Find out more...

For detailed information on the planning of emergency lighting, please refer to Cooper Emergency Lighting catalogue.



Velos LED Exit Sign

Velos

CE IP20 Class II 

- Unit with innovative LED technology
- Certified family of emergency exit signs in accordance to EN 60598-2-22
- 3rd party certification
- Nickel Metal Hydride Batteries
- Push button for test operation
- Ceiling, wall, suspension, recessed and lateral installation
- Models of 30m and 40m visibility
- Test functions
- Complete range of accessories
- EasiCheck2 model available

Light Source:

- LED Strip with a lifetime of more than 60.000 hours
- 24 LEDs producing 140 lumens

Materials:

- Base and reflector unit in white Polycarbonate

Operation:

- Maintained and slave versions
- Autonomy from 1h up to 3h
- Adjustable brightness function to 50% in mains operation
- Functional test button
- Telocommand, Inhibition operation
- Autotest and EasiCheck2 models available

Installation:

- Ceiling, wall, recessed, suspended through rope or metal pipe and lateral installation
- No special tools required

Applications:

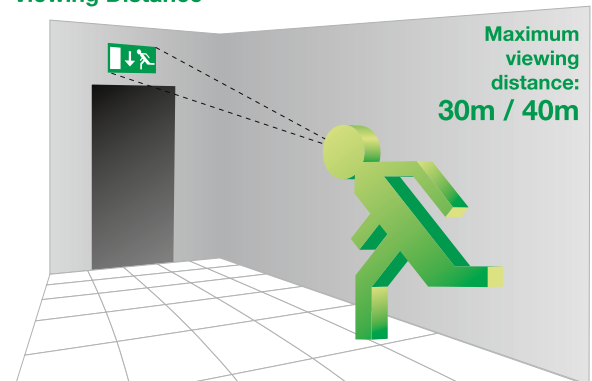
- Schools, universities, public administration, commercial environments
- Hotels, restaurants, meeting rooms, offices, shops, cinemas, theaters, museums
- Areas with large heights and long distance view requirements



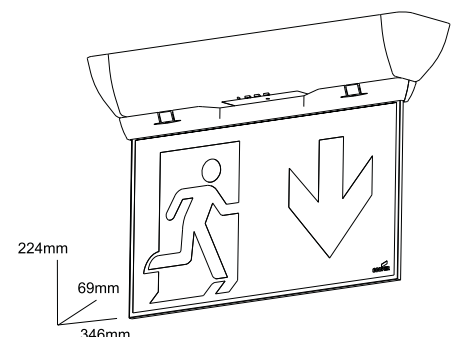
The new Velos family of emergency lighting is designed and equipped with technical solutions that make it suitable for a wide range of applications. A complete range of accessories such as the recessed base for false ceiling installations, lateral and back base as well as suspension options allow for a variety of mounting positions.

Together with the choice of ISO and EURO exit sign labels, the Velos LED range is appropriate for emergency lighting requirements in multiple e of places such as offices, restaurants, hotels, hospitals and general commercial applications.

Viewing Distance



Distance view of 30 / 40 meters provides the ability to use fewer products and less power consumption per coverage area of an application.



1 Power Supply Unit

- Easy to install with no use of special tools required.
- Environmentally friendly: no heavy metals and energy-optimized charging process due to low self-discharge.

2

- Easy to connect power cables via screwless connectors for up to 2.5mm² cables.

3

- Multiple entrance points for power cables through base and main body of the power supply unit.
- Construction Material: Polycarbonate.
- Large capacity NiMH batteries with small construction size for compact luminaire design.

4 Velos electronics

- Fully automatic function test (weekly) or duration test (every 10 weeks).
- Testing button for manual triggering of function test.
- Autotest models available with simple fault analysis with two LED indication of battery / LED test and status display (operation, function test, duration test, failure).
- Easily set the level in mains operation to 50% or 100%.
- Increased product reliability with LED matrix orientation. By groups of 3, if one of the 24 LEDs fails, the intact LEDs will illuminate more brightly.

5 Velos Exit Sign

- Design life time: exceeding 60.000 hours lifetime expectancy using an EN1838 standard plate of 4mm thickness with 24 LED producing 140lm with minimum 240 cd/m² on white surface.

6

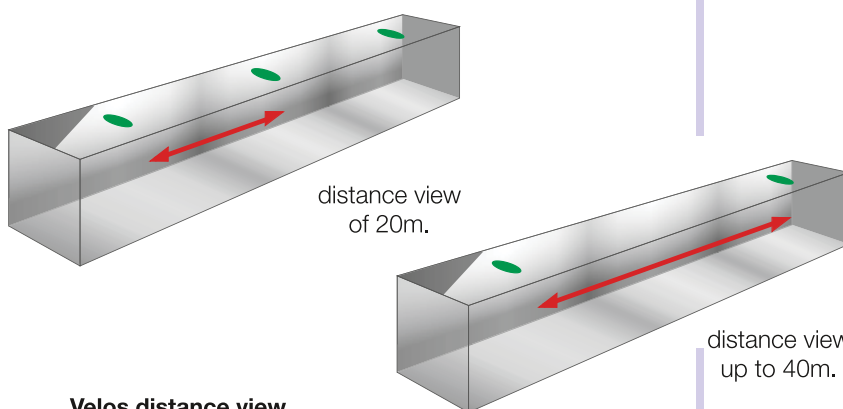
- Simple parts clicking with each other ensuring fast installation.



Velos optimal illumination

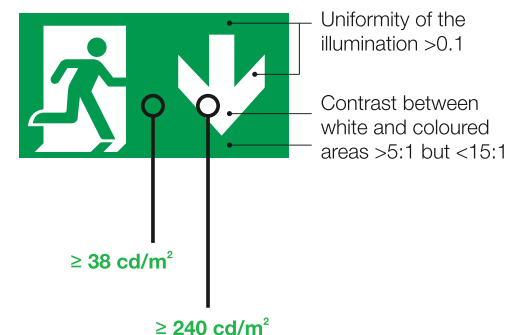
New exit sign plate used in Velos converts the high luminance of the LED into an illuminated surface with absolutely homogeneous brightness, with luminance of over 38 cd/m² on the white surface. As such the escape sign always remains easily recognisable even with poor visibility conditions or in bright surroundings.

Velos LEDs illuminate with a high efficiency of more than 112lm/W.



Velos distance view

- Velos provides a solution regarding distance view and emergency exit signs
- Distance view from 30 up to 40 meters, minimizing the number of lights into an installation, reducing the energy consumption of the emergency lighting in a building and installation and maintenance cost.
- Various accessories for ease of installation aiming to accommodate all possible applications and areas, with recessed base, wall mounting accessories, lateral direction base, suspended from ceiling either with rope or metal pipes.



Photometric requirements for escape sign

EN 1838 (1999), Emergency lighting operation:

$L_{min} = 2 \text{ cd/m}^2$ (green surface)

$L_{green} \geq 2 \text{ cd/m}^2$

$L_{white} \geq 10 \text{ cd/m}^2$

$5 \leq L_{white} / L_{green} \leq 15$

ISO 30061 (2007), When smoke is prime consideration:

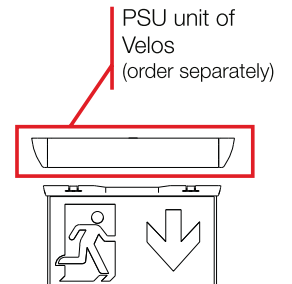
$L_{green} \geq 10 \text{ cd/m}^2$

$L_{white} \geq 50 \text{ cd/m}^2$

Velos order codes

Velos PSU self-contained

Order code			
O-ESC	Velos PSU 1,5h NiCD	1,5h	4VTCs NiCD 1600mA
O-ESC-3H	Velos PSU 3h NiCD	3h	4VTCs NiCD 1600mA
O-ESC-3H-EC2	Velos PSU 3h NiCD Easichck2	3h	4VTCs NiCD 1600mA
O-ESMAINS	Velos PSU Mains	-	-
O-ES-CG-S	Velos PSU Mains with V-CG-S2	-	-



Velos PSU Autotest

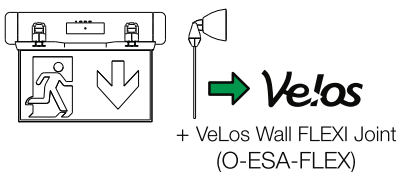
Order code			
O-ESM-AT	Velos PSU 1h NiMH Autotest	1h	4AA NiMH 1100mA
O-ESM-AT-3H	Velos PSU 3h NiMH Autotest	3h	4VTCs NiMH 2000mA

Mounting applications of Velos (order codes examples)

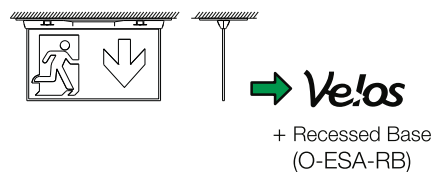
Ceiling mount



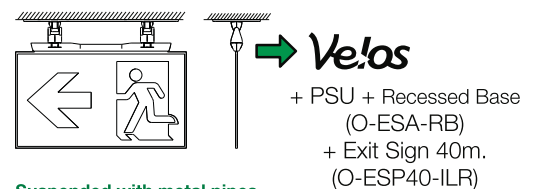
Wall mount



Recessed (30m)



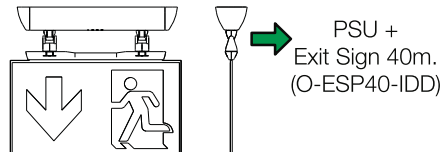
Recessed (40m)



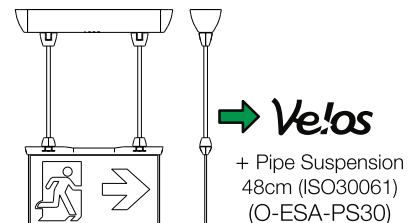
Back wall mount



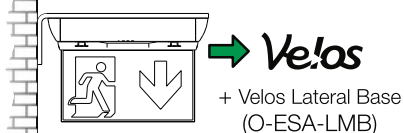
Ceiling mount (40m)



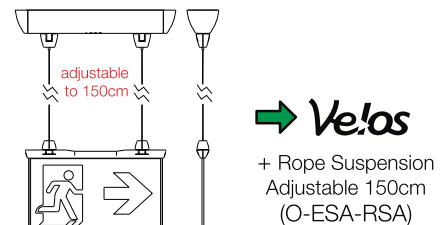
Suspended with metal pipes



Lateral mount



Suspended with adjustable rope



Velos Accessories

Order code	
O-ESA-RB	Velos Recessed Base
O-ESA-FLEX	Velos Wall FLEXI Joint
O-ESA-RSA	Velos Rope Suspension adjustable 150cm
O-ESA-PS30	Velos Pipe Suspension 48cm (ISO30061)
O-ESA-LMB	Velos Lateral Mounting Base
O-ESA-BMB	Velos Back Mounting Base

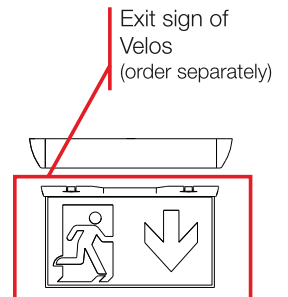
Velos ordering

Velos exit sign consist of 2 parts, the PSU unit and the Exit sign.

In order to make your choice you need to add 2 lines in your ordering for both parts of Velos Exit Sign.

Velos Exit Signs

Order code	Description	Light	Dimensions	Signs
O-ESP-ELR	Velos pictogram EURO LEFT/RIGHT 30m	24 LEDs	288x165mm	
O-ESP-ED	Velos pictogram EURO DOWN/BLANK 30m	24 LEDs	288x165mm	
O-ESP-EDD	Velos pictogram EURO DOWN/DOWN 30m	24 LEDs	288x165mm	
O-ESP-EU	Velos pictogram EURO UP/BLANK 30m	24 LEDs	288x165mm	
O-ESP-EUU	Velos pictogram EURO UP/UP 30m	24 LEDs	288x165mm	
O-ESP-E2R	Velos pictogram EURO Lateral to Room	24 LEDs	288x165mm	
O-ESP-E2W	Velos pictogram EURO Lateral to Wall	24 LEDs	288x165mm	
O-ESP-ILR	Velos pictogram ISO LEFT/RIGHT 30m	24 LEDs	288x165mm	
O-ESP-ID	Velos pictogram ISO DOWN/BLANK 30m	24 LEDs	288x165mm	
O-ESP-IDD	Velos pictogram ISO Down/Down 30m	24 LEDs	288x165mm	
O-ESP-IU	Velos pictogram ISO UP/BLANK 30m	24 LEDs	288x165mm	
O-ESP-IUU	Velos pictogram ISO UP/UP 30m	24 LEDs	288x165mm	
O-ESP-I2R	Velos pictogram ISO Lateral to Room	24 LEDs	288x165mm	
O-ESP-I2W	Velos pictogram ISO Lateral to Wall	24 LEDs	288x165mm	
O-ESP-RUS	Velos Pictogram Russian Exit 30m	24 LEDs	288x165mm	
O-ESP40-ILR	Velos pictogram ISO LEFT/RIGHT 40m	24 LEDs	370x220mm	
O-ESP40-IDD	Velos pictogram ISO Down/Down 40m	24 LEDs	370x220mm	
O-ESP40-IU	Velos Pictogram ISO UP/BLANK 40m	24 LEDs	370x220mm	
O-ESP40-IUU	Velos Pictogram ISO UP/UP 40m	24 LEDs	370x220mm	
O-ESP40-ID	Velos Pictogram ISO DOWN/BLANK 40m	24 LEDs	370x220mm	
O-ESP-H	Velos Hydrant pictogram 30m	24 LEDs	370x220mm	
O-ESP-FHD	Velos Fire hose down 30m	24 LEDs	370x220mm	
O-ESP-FH-EXT	Velos Fire hose & extinguisher 30m	24 LEDs	370x220mm	



Cooper Univel S.A.

Komyos Korinou
60100 Katerini
Greece

Tel: +30 23510 59900
Fax: +30 23510 59901

Web: www.univel.gr

Cooper Safety Ltd

Jephson Court, Tancred Close
Leamington Spa,
Warwickshire, CV31 3RZ
United Kingdom

Tel: +44 1926 439200
Fax: +44 1926 439240

Web: www.cooper-safety.com

Cooper Industries Plc
Unit F10, Maynooth Business Campus
Maynooth, Ireland
Ireland
www.cooperindustries.com

**COOPER** Safety