

THORN

Voyager Sigma

Versatile exit sign with
low-maintenance LED option



For emergency exit signage that's simple to install with energy-saving LED options, choose Voyager Sigma

Voyager Sigma enables designers to satisfy International safety standards while using the latest LED technology for economical operation and low maintenance. Also available with standard 8W T16 fluorescent lamps.



- Voyager Sigma single sided exit signs are made from polycarbonate and are available in white (RAL9010) or silver (RAL 9006).
- Both the EU as well as the ISO style legends are screen printed and available with the arrow pointing upwards, downwards, to the right and to the left. They are available separately and can easily be updated if exit route direction changes.
- The legends are clipped into the luminaire body, below the diffuser.
- Suitable for surface mounting Voyager Sigma has pre-drilled holes for use with different wall recessed boxes, plus a knock-out cable entry on the top for surface mounted wiring.
- A hinged steel gear tray makes installation and maintenance easy.
- LED versions provide self-contained emergency light for a duration of three hours, using NiMH batteries.
- Standard 8W/T16 fluorescent versions deliver three hours of emergency lighting using NiCd batteries.

Testing

E3M Manual Test

The E3M models are basic emergency signs and have no automatic test feature but can be wired for use in the maintained or non-maintained mode.

E3TX SelfTest

Explorer SelfTest technology can be added to emergency lighting fittings to provide simple and reliable stand-alone automatic testing. Incorporated in E3TX versions of Voyager Sigma luminaires, it contains an intelligent diagnostic processor that automatically performs the testing and uses a Bi-colour LED to show the test results.

Compliance with regulations requires a simple visual check of the luminaires at monthly intervals, with results recorded in a central log book and listing any failures.

Explorer SelfTest technology delivers:

- Easy installation, with automatic self-commissioning and no additional cabling
- Simple monthly visual monitoring by staff
- Fast recharge cycles for batteries of 10 to 15 hours (24 hours for manual test fittings)
- Bi-colour LED (red and green) status indication
- Intelligent scheduler learns to test while the building is unoccupied

Explorer SelfTest is an ideal testing solution for small applications or building refurbishments. Key applications include small shops, offices and public buildings.

Making life easy using E3TX Addressable Test and Explorer Project

Explorer Project is a centrally-addressable testing system that provides fully automatic monitoring, testing and fault logging for up to 256 emergency fittings

It delivers:

- Ultimate convenience for emergency lighting testing
- Automatic, paper-free storage of results for two years
- A reporting function that identifies each luminaire, its location and details of the fault
- Coverage up to 900 metres from the local controller
- Flexible scheduling of tests to suit local requirements
- Staggered testing to minimise the risk of depleted batteries
- Simple installation and commissioning
- Simple connection of E3TX Voyager Sigma luminaires using polarity-free twin DALI wire and standard mains-rated installation materials

Explorer Project is particularly suitable for small-to-medium projects requiring an easy and convenient way of maintaining an emergency lighting installation. Schools, colleges, small offices, surgeries, libraries and public buildings are typical user groups.

Find out more...

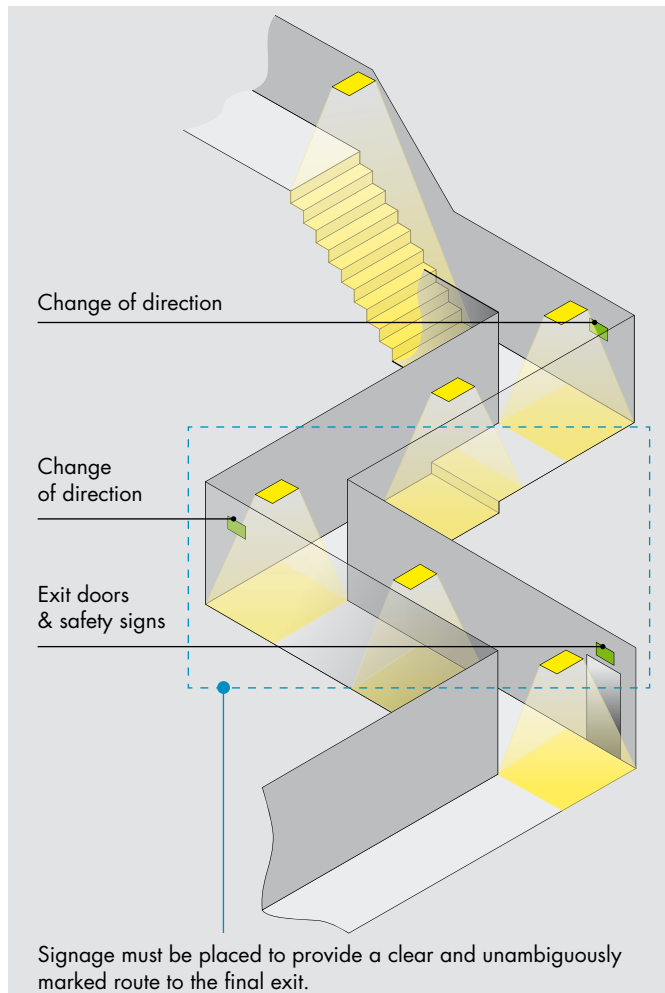
For further information on Explorer please refer to the 'Explorer' brochure.



Exit signage in Escape routes and Open areas

Planning emergency signage

According to EN 1838, exit signage along escape routes should let people see the way out and ensure that they can evacuate the building safely if needed. Escape routes can also be 'notional' in open spaces such as a large office. Changes in levels, direction and at intersections along a corridor itself 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 and lays down minimum size requirements, luminance levels and contrast ratios to be observed. In public spaces, exit signs must be lit whenever there are people in the building.



Delivering the right message

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

Technical design:

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

Legend:

Only two designs of exit sign comply with legislation:

- The pictogram from the European Safety Signs Directive
- The pictogram conforming to ISO 6309 (EN 5499, part 1)

Although both forms of legend are in use, only one choice should be used in a building.



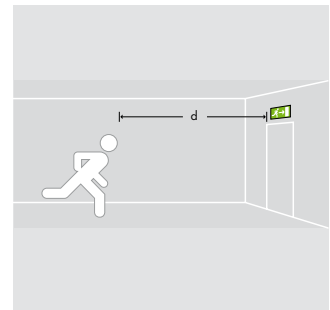
EU legend



ISO legend

Viewing distance:

- The viewing distance 'd' of an internally lit exit sign (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



Viewing distance (d) = height of legend x 200

Solution

Voyager Sigma signs comply with these requirements. They offer:

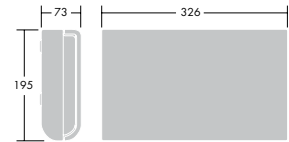
- A safety colour luminance of the exit legend change is at least 8cd/m^2
- Sigma can be viewed from up to 30m distance
- A choice of either EU or ISO style legends

Find out more...

For detailed information on the planning of emergency schemes please refer to the Emergency Lighting Design Guide.



Product Features



Lamps

⇨ 8W T16 (FDH) compact fluorescent or multiple LED strip version.

Materials/Finish

Body: polycarbonate with alternative finishes in either RAL9010 white or RAL9006 metallic silver
Diffuser and legend panel: polycarbonate

Installation/Mounting

Wall mounting with 20mm conduit or rear back box entry.

Standards

Designed and manufactured to comply with EN 60 598.2-22, EN 55015, EN 501838

Ⓢ Class I electrical
IP40

Specification

To specify state: Sign for viewing up to 30m distance, maintained operation, available as manual or self/addressable test capability. 3 hours emergency duration with either 8W T16 lamp or LED strip. With choice of European or International format Exit legends. As Thorn Voyager Sigma.

Ordering Guide Supplied complete with lamp for complete luminaire order body + legend

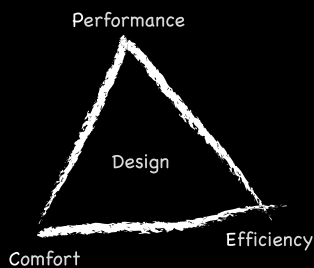
SAP Description	ILCOS code	Socket	Weight (kg)	SAP code
VOYAGER SIGMA 1X8W T16 E3M WHI	FDH	G5	2.1	96233809
VOYAGER SIGMA 1X8W T16 E3M SIL	FDH	G5	2.1	96233810
VOYAGER SIGMA 1X8W T16 E3TX WHI	FDH	G5	2.0	96233811
VOYAGER SIGMA 1X8W T16 E3TX SIL	FDH	G5	2.0	96233812
VOYAGER SIGMA LED E3M WHI			1.4	96233813
VOYAGER SIGMA LED E3M SIL			1.4	96233814
VOYAGER SIGMA LED E3TX WHI			1.4	96233815
VOYAGER SIGMA LED E3TX SIL			1.4	96233816

E3M - 3 hour emergency manual test maintained, E3TX - 3 hour emergency SelfTest, or Addressable Test if connected to Explorer Project/Vision, SIL - silver, WHI - white
Both versions can be wired to operate as Non-maintained or Maintained.

Legends		SAP code
VOYAGER SIGMA LEG EU UP	EURO LEGEND SCREEN PRINTED ARROW UP	96233875
VOYAGER SIGMA LEG EU DOWN	EURO LEGEND SCREEN PRINTED ARROW DOWN	96233876
VOYAGER SIGMA LEG EU LEFT	EURO LEGEND SCREEN PRINTED ARROW LEFT	96233877
VOYAGER SIGMA LEG EU RIGHT	EURO LEGEND SCREEN PRINTED ARROW RIGHT	96233878
VOYAGER SIGMA LEG ISO UP	ISO LEGEND SCREEN PRINTED ARROW UP	96236785
VOYAGER SIGMA LEG ISO DOWN	ISO LEGEND SCREEN PRINTED ARROW DOWN	96236786
VOYAGER SIGMA LEG ISO LEFT	ISO LEGEND SCREEN PRINTED ARROW LEFT	96236787
VOYAGER SIGMA LEG ISO RIGHT	ISO LEGEND SCREEN PRINTED ARROW RIGHT	96236788

Performance, Efficiency and Comfort (PEC) – for a better lit environment

Voyager Sigma evokes the spirit of Thorn Lighting's dynamic, results-orientated PEC programme



The programme is based on the principle that Performance, Efficiency and Comfort determine the effectiveness of lighting, its impact on the people using it, and its impact on the natural environment. Voyager Sigma delivers the right performance on the right place at the right time.

Performance: providing the best visual effectiveness

- The ease of altering the signage ensures the legend can be easily altered to suit changing requirements.
- Fast recharge cycle options provide minimum system downtime due to battery discharge during testing.
- Crisp and clear legend illumination enhances detection of escape routes in an emergency situation.

Efficiency: conserving energy and effort, reducing CO₂ emissions and waste providing lighting that is practical and efficient to install, operate and maintain

- The availability of LED technology provides for reduced power demand and conserving energy.
- The LED option uses environmentally friendly NiMH battery technology
- The hinged gear tray makes the luminaire easy to install and service, reducing the cost of ownership. The option for Thorn Explorer Project provides automatic monitoring and testing of luminaire status, providing test reports fulfilling statutory requirements.

- The option of both ISO and EU style legends and the quality optical design of the fitting ensure the luminaire meets all relevant regulations.

Comfort: giving people satisfaction and stimulation

- The styling of the luminaire gives a neat appearance, blending luminaire style with the need to meet statutory requirements.
- A well-designed emergency installation using good quality luminaires gives reassurance to users of the space.



THORN

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