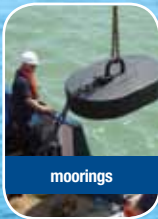




data buoy platforms



moorings



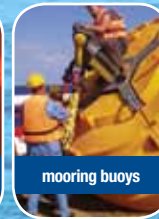
navigation buoys



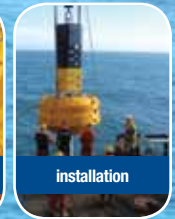
hydrosphere



navigation lights



mooring buoys



installation

the UK's leading supplier of aids to navigation

# Hydrosphere traffic light systems

Hydrosphere is able to supply a range of LED lights that are suitable for use as port traffic signals based on IALA recommendation E-111 for the control of traffic movements in ports and port approaches.

Choosing a suitable light depends on a number of factors, such as the required day and night ranges and the field of view. In addition, signals can be 'all round' when intended for all vessels simultaneously or 'directional' where messages will not be the same in every direction. For this reason a port may require one or multiple sets of lights.

To control these lights Hydrosphere supply an electronic control system, custom designed for each installation. This can handle complete or restricted light combinations over one or more sets of lights. Light repeaters are included to verify correct operation of remote lights. The system utilises a 240v a.c. power supply with optional 24hr battery backup.

The control system communicates with a lamp control unit at each light signal site. Remote sites can be connected by cable, up to 1000m in length, or a radio connection can be used for distances up to 10Km.

At each light signal site the lamp control unit drives the lights and output can be monitored and fed back to the main control system. Lights can be powered with a mains power supply situated on the site with optional battery backup available. Alternatively, solar power can be used depending on which lights are employed.

## features:

- A wide range of LED lights
- Complete or restricted light combinations
- Custom designed electronic control system
- Cable or radio communication with remote sites
- One or multiple light signal sites
- Mains power with battery back-up option
- Solar power option available depending on lights required
- IALA Recommendation E-111 compliant



navigation lights

# Hydrosphere traffic light systems

## specifications

### control system

- » Custom designed enclosure, normally to at least IP66
- » Complete or restricted light combinations
- » Light repeaters to verify correct operation of remote lamps
- » 240v a.c. power supply
- » Optional 24hr battery backup
- » Indication of mains failure at remote sites where battery backup option has been specified
- » Indication of battery status where battery backup option has been specified

### communication

#### Wired

- » Industry standard CAN bus communication
- » Up to 1000m cable length, shielded twisted pair cable

#### Radio

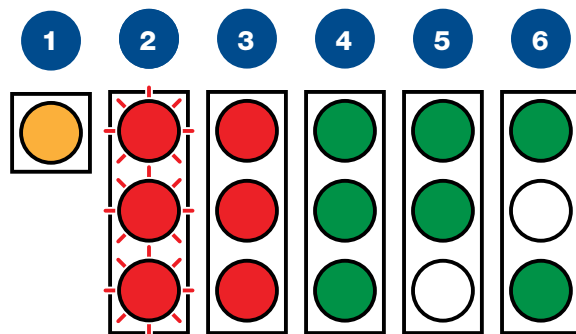
- » Up to 10Km using licensed, Satel radio equipment. Subject to site survey
- » Up to 4Km using licence-free, Satel radio equipment. Subject to site survey
- » Either dual Single Point-to-Point or PC controlled Master-to-Multiple Remote Stations
- » Alarm indication of a failed radio link

### lamp control units (for remote sites)

- » Single or multiple light systems for any installation
- » Each output monitors lamp function when selected
- » Optional 24hr battery backup
- » Optional solar power supply depending on lights required

### environmental

- » All assemblies normally rated at IP66
- » Operating temperature range: -10°C to +70°C



### Light combinations to comply with IALA Recommendation E-111

(amber may be shown with states 3 & 6)

- 1 Exemption. Vessels outside the main navigation channel may ignore the main signal.
- 2 Emergency. All vessels to stop or divert according to instructions.
- 3 All vessels stop.
- 4 Vessels may proceed. One-way traffic.
- 5 Vessels may proceed. Two-way traffic.
- 6 Vessels may proceed when instructed to do so.



## tips for choosing lights

The output required approximately doubles for each additional mile of visibility. Always consider the lighting of the site itself; a navigation light viewed against a background of shore-based lights will seriously affect a mariner's ability to detect the aid, so the output will need to be increased.



**hydrosphere**

### about Hydrosphere

Hydrosphere is the UK's leading supplier of aids to navigation and has been providing cost-effective solutions to the marine industry for more than 18 years. We offer a wide range of navigation and mooring buoys, LED navigation lights, sector lights, rotating beacons, leading lights, jetty masts, beach and zone marking products and associated moorings. Rental, installation and maintenance services are also available for all our products and systems.

For more information please contact us.

data buoy platforms | moorings | navigation buoys | navigation lights | mooring buoys | installation

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Compliant with all IALA recommendations.

