



Navigation Light Control



Navigation Light Control

Features

The Mega-Guard Navigation Light Control (NLC) controls up to 48 navigation lamps. The system has two outputs for each navigation lamp: a Main lamp output and a Spare lamp output. Each navigation lamp has its own on/off button. A number of navigation lamps can be grouped together (e.g. free sailing, towing) for simultaneous on/off control.

The Mega-Guard NLC supports the following lamp types:

- ▶ LED; 19~32VDC; Max. 60W
- ▶ Bulb; 19~32VDC; Max. 60W

The Spare lamp is automatically activated in case of failure of the Main lamp. The Mega-Guard NLC is powered by two 19~32VDC power supplies: one main supply and one back-up supply and switches automatically to the back-up supply in case of failure of the main supply.



Mega-Guard NLC Operator Panel	
Touchscreen	5,7"
Pushbuttons	6
Front	metal or glass
Microprocessor	ARM
Ethernet ports	4
NLC Controller support	up to 4

Mega-Guard NLC Controller	
Main lamp outputs	12 (max. 60W)
Spare lamp outputs	12 (max. 60W)
Power supply	24VDC (-25% ~+30%) main and back-up

NLC environmental and approvals	
Ambient temperature	-25 ~ 70°C
IMO approval	✓
Class approval	LRS,DNV-GL, ABS RINA, BV, RMRS, CCS, NKK, PRS, KR

System lay-out and operation

The Mega-Guard NLC consists of the following items:

- ▶ **NLC Operator Panel** for flush panel mounting in bridge console
- ▶ **NLC Controller** for din-rail mounting inside bridge console
- ▶ **I/O Cable** connecting the NLC Operator Panel with NLC Controller

The NLC Operator Panel is operated through a user friendly 5,7" touchscreen for intuitive operation and monitoring. This Operator Panel is available in two different versions, a panel with a metal front for commercial and navy ships and a panel with glass front for mega yachts.

The NLC Controller is DIN rail mounted inside bridge console and the navigation lamps and power supplies are directly connected to this Controller. In addition, the NLC Controller is equipped with manual on/off switches for Main and Spare lamps. The NLC Controller should be mounted in such a way that it can be reached without using tools in order to fulfill class requirements.

The I/O Cable with length of 3 or 5 meter, inter-connects the NLC Operator Panel with the NLC Controller.

NLC Operator Panel functions

- ▶ Touch buttons for group lamp control (under way, NUC, RAM, anchor etc.)
- ▶ Touch buttons for individual lamp control
- ▶ Mimic page of vessel and navigation mast displayed on touchscreen
- ▶ Ack button for acknowledging alarms
- ▶ Stop Horn button for deactivating the external horn and the internal buzzer
- ▶ System on and fault indication
- ▶ Main and back-up supply indication
- ▶ Touch buttons used for dimming and entering installation mode
- ▶ USB port to load configuration from memory stick
- ▶ Redundant Ethernet port to connect to other Mega-Guard Operator Panels
- ▶ I/O Bus connector to connect to I/O Cable
- ▶ Supports up to 48 lamps with 4x NLC Controller

NLC Controller functions

- ▶ 12 pcs navigation lamp Main output
- ▶ 12 pcs navigation lamp Spare output
- ▶ 24 pcs switch manual override: Main lamp On/Off, Spare lamp On/Off
- ▶ Main power supply input: 19~32VDC
- ▶ Back-up power supply input: 19~32VDC
- ▶ Power supply output: 19~32VDC connected to the NLC Operator Panel
- ▶ I/O Bus connector to connect to I/O Cable

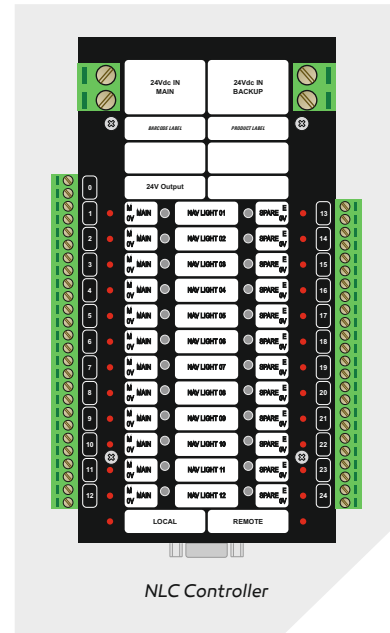
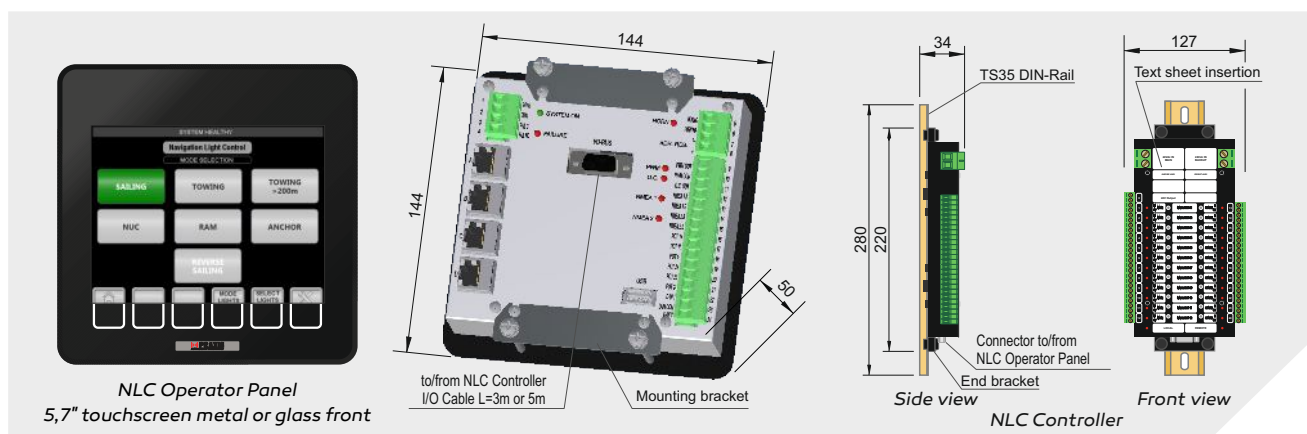
IMO Colreg 72

The Mega-Guard NLC is compliant with IMO Colreg 72 and supports the following vessels:

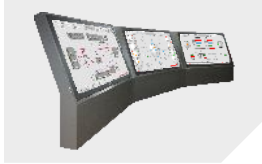
- ▶ 12-20 meter length
- ▶ 20-50 meter length
- ▶ More than 50 meter length
- ▶ Towing and pushing
- ▶ Double ended ferries
- ▶ Fishing vessels
- ▶ Dredging and underwater works

Lamps are supported with different visibility (2NM, 3NM, 5NM and 6NM) in accordance with Colreg 72 legislation.

Mounting & dimensions



Vessel
Management System



Power
Management System



Fire
Alarm System



CCTV
Video Distribution



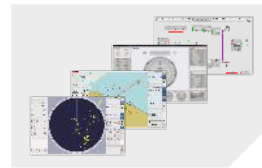
Ship
Performance Monitor



Fleet
Management System



Integrated
Navigation System



Heading
Control System



Propulsion
Control System



Dynamic
Positioning System



BNWAS
Watch Alarm System



Navigation
Light Control



Wiper
Control System



Energy
Management System



Electric
Propulsion Motor



Electric
Steerable POD



High
Power Inverter



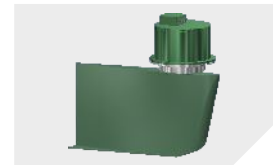
DC bus
Generator



Electric
Energy Storage



Electric Fin
Stabilizer



*Ship automation,
navigation and
electric propulsion*