NORMA.AFF

Navigation lights monitoring and control system

PRESENTATION

▶ NORMA is a navigation lights alarm system. It allows the monitoring and control of up to 48 24VDC/230VAC navigation lights with a power ranging from 0.5W to 65W*.

▶ The navigation lights are controlled by a NORMA.AFF touchscreen which must be associated with NORMA.CPU and NORMA.PWR.

▶ NORMA.CPU enables the control and monitoring of 8 navigation lights.

▶ NORMA.PWR provides power management from 2 different sources, with associated alarms, automatic and manual switchover.

▶ NORMA.AFF has an integrated software allowing you to customize your interface (ship silhouette, control buttons, status lights, etc.).
(*65W max. at 230VAC, 40W max. at 24VDC)

FUNCTIONAL CHARACTERISTICS

Functions

▶ Power supply: manual or automatic switchover with alarm.

▶ Bipolar protection and control of navigation lights. (No common wire authorized).

▶ Compatible with filament or LED navigation lights under 24 VDC, 230VAC (I min./max. see manual), other voltages available as option.

▶ Lifetime alarm for LEDs navigation lights.

▶ Detection of navigation lights failures: filament breakage, short-circuit, power supply failure and fuse failure.

▶ Day/ night mode

▶ Serial connections to control panel, AMS, VDR.

▶ Up to 48 (24*) navigation lights (up to 6 NORMA.CPU)

▶ Emergency control switches directly on the board.

*Limitation with a 7" touch screen

NORMA CPU inputs

▶ 1 control power supply (24VDC).

▶ 1 acknowledgement input (N.O. push button).

▶ 1 dimming input (N.O.push button).

▶ 1 test input (N.O.push button).

▶ 1 local/remote switch input.

▶ 1 ON/OFF switch input.

▶ 1 main/emergency switch input.

▶ 8 navigation lights control inputs.

NORMA CPU outputs

▶ 8 navigation lights outputs.

▶ 8 navigation light status indication outputs.

▶ 3 relay outputs (buzzer, navigation light fault, power supply fault) (N.O. 24VDC /1A).

▶ 1 «system fault» relay output (N.C. 24VDC/1A).

▶ 4 signalling outputs (power suplies + lifetime alarm).

NORMA CPU serial outputs

▶ NORMA.CP control panel output (RJ45): RS485, 9600 bauds, 8 bits, 1 stop bit; Modbus RTU

▶ VDR (Voyage Data Recorder) output : RS485, 4800 bauds, 8 bits, 1 stop bit; IEC61162-1

▶ AMS(Alarm Monitoring System) output: RS485, 9600 bauds, 8 bits, 1 stop bit; Modbus RTU

Software tool NORMA AFF

▶ Creation of your lights (mode of operation, color, size, location)

▶ Creation of up to 8 (6*) grouped controls of 8 lights

▶ Creation of your ship silhouette (import image, size, location)

▶ Library of predefined silhouettes

▶ Import your silhouette via USB key

▶ Export/Import of the panel configuration for sistership duplication

APPROBATIONS

▶ Bureau Veritas

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MECHANICAL CHARACTERISTICS

	Dimensions	weight	Mounting
NORMA.AFF (touchscreen)	7" (187x147x35 mm)	0,6 kg	built-in
	10" (282x197x35 mm)	1 kg	
	15" (422x267x64 mm)	4,1 kg	
	21" (552x347x65 mm)	6,1 kg	
NORMA.CPU	331x127x67 mm	1 kg	DIN rail
NORMA.PWR	111x128x57 mm (DC)	0,5 kg	DIN rail
	146x128x57 mm (AC)	0,5 kg	

ELECTRICAL CHARACTERISTICS

NORMA.PWR

► Control supply voltage: 24VDC -25%/+30% (1A max.)

► Power supply voltage : 24VDC -25%/+ 30% 230VAC + -10%, 50-60Hz (*other voltage, contact us)

► Power supply current consumption :

    ► 30A maximum if switching directly to the NORMA.CPU_DC card

    ► 10A maximum if switching directly to the NORMA.CPU_AC card

NORMA.CPU DC

► Limitation of 200W by NORMA.CPU (e.g. 5 lights of 40W or 8 lights of 25W)

NORMA.AFF

Consumption :

► 7":   24 VDC   0,3 A
► 10":   24 VDC   0,38 A
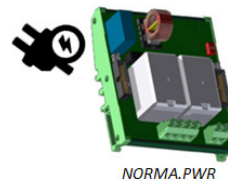► 15":   24VDC   1,2 A
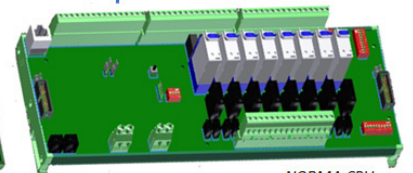► 21":   24VDC   1,7 A

(via NORMA.CPU card)

CONNECTION OVERVIEW

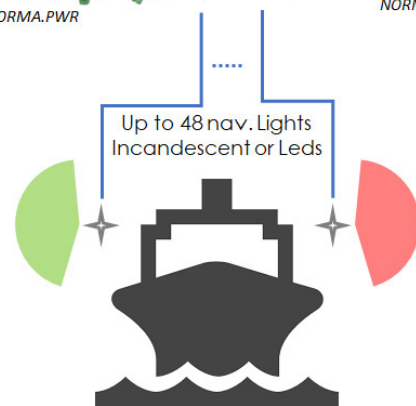customized page for touch screen « AFF »

Power 24Vdc or 230Vac main+ emer.

serial port RS485

NORMA.PWR

NORMA.CPU

Up to 48 nav. Lights Incandescent or Leds

ENVIRONMENTAL CONDITIONS

Temperature limits

► 0°C to 55°C (functioning)

► 0°C to 70°C (storage)

Humidity

► 95% Humidity max.

IP **Ingress protection rating**

► IP 65 (touchscreen front)

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sail safely