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 naviga tion 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 (24VDC/24VAC/115VAC 230VAC – 65W max.) or LEDs navigation lights (24VDC).
- ▶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 navigation lights (up to 6 NORMA.CPU)
- ▶Emergency control switches directly on the board.

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 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

MANTAGUA Led Lighting Innovations

MARINELEC TECHNOLOGIES

MECHANICAL CHARACTERISTICS

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

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)

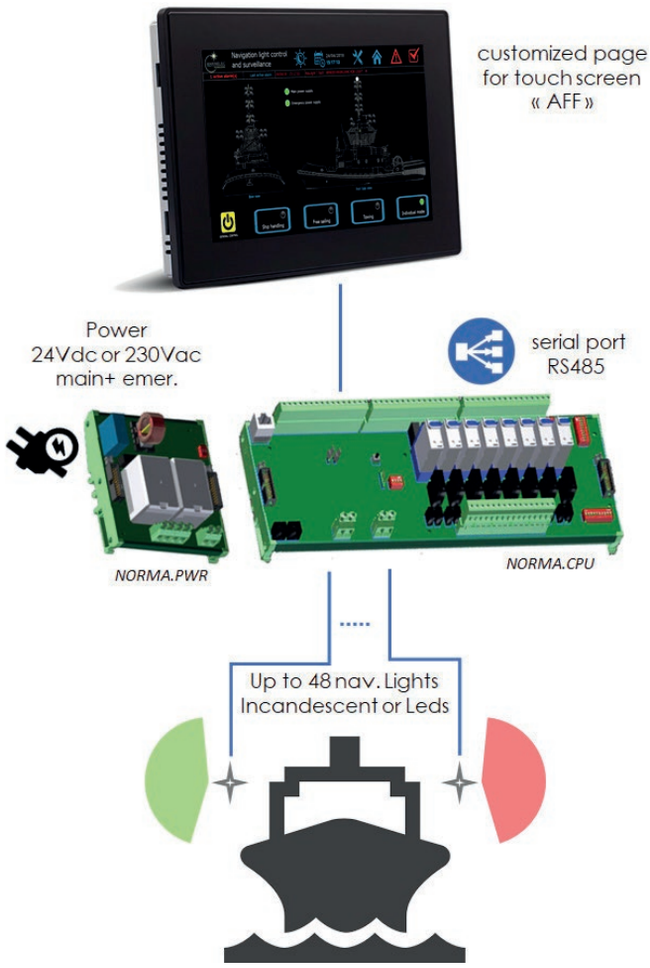
NORMA.AFF

Consumption :

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

(via NORMA.CPU card)

CONNECTION OVERVIEW



ENVIRONMENTAL CONDITIONS

Temperature limits
- 0°C to 55°C (functioning)
- 0°C to 70°C (storage)

Humidity
- 95% Humidity max.

Ingress protection rating
- IP 65 (touchscreen front)

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