





# HXK 航行信号灯控制器 Navigation and signal lights controller

#### ▶ 概述 Overview

HXK型航行信号灯控制器应用于对船舶航行灯、信号灯的控制和状态显示。控制 器设有调光、试灯、消音等按钮,具有主备电源自动转换、主电失电报警、航行信号 灯故障报警等功能。

产品满足国内外船级社规范、国际海上避碰规则以及内河避碰规则。

HXK Navigation and signal light controller is used to control the navigation lights and signaling lights on ships and display their status. It is provided with buttons for dimmer, lamp test, silence and so on, with main and standby power supply automatic switching, main power failure alarm, navigation and signal light failure alarm and other functions.

The product meets the requirements of specifications of domestic and foreign ship classifications, international regulations for preventing collisions at sea and regulations for preventing collisions at inland waters.

#### ▶ 产品特点 Product features

- 控制面板采用LED指示、按键操作,按照实船布置模拟显示航行信号灯的位置, 外形美观,指示清晰,便于观察、操作与维护; The control panel is provided with LED display and key operation, simulate the location of the navigation and signal light based on the real ship layout, with nice appearance, clear indication, and easy to operate and maintain;
- 控制面板具有本地调光功能,同时具有远程统一调光的CAN接口; The panel has a local dimming function, and has a CAN interface for remote unified dimming;
- ■具有航行信号灯故障报警功能;
- With navigation and signal failure alarm; ■具有主备电源自动转换功能及主、备电失电报警功能;
- With main and standby power supply automatic switching and failure alarm;
- ■具有对外通信接口和VDR接口,并具有综合报警输出接口; With external communication interface and VDR interface, and with integrated alarm output interface;
- 支持外接LED类型的航行信号灯;
- Support external navigation and signal lights of LED;
- O LED灯应能自我监控,并能给出当发光强度不满足COLREGs的要求时所对应的工 作电流临界值,以通知控制器发出报警;

LED lights shall be self-monitored and give the critical value of current when the luminous intensity of the light reduces below the level required by COLREGs, to notify the controller to give an alarm;

O LED灯应有规定的使用寿命,控制器可通过监测记录LED灯的工作时间和开关次 数来进行灯的寿命周期管理,以提醒用户及时更换新的LED灯(选配)。 LED lights shall have specified lifespan, operating hours and the number of switching cycles can be recorded by controller for life cycle management, to remind users to replace the new LED lights in time(optional).

### ▶ 产品组成

Product composition

■ 航行信号灯控制面板 Navigation and signal light control panel

# ▶ 技术指标

#### Technical index

■工作电压:

主电源: 单相AC220V±10%, 50/60Hz 备用电源: 单相 AC220V±10%, 50/60Hz或 DC24V±20%(如航行信号灯电压等级为AC220V

备电为DC24V时,则需配置逆变器)

Working voltage:

Main power supply: single-phase AC220V± 10%, 50/60Hz

Standby power: single-phase AC220V ±10%, 50/60Hz or DC24V ±20%

(If the power supply of lights are AC220V,but the standby power is DC24V, inverter is needed)

- 控制器功耗: 10W Controller power dissipation: 10W
- 负载功率: ≤60W/路(航行信号灯路数) Control power: ≤ 60W/way (number of ways of navigation and signal light)
- 输出路数:按照实际需求配置 Number of output ways: configure according to the actual use
- 输入信号:外部消音信号(无源常开) Input signal: external silence signal (passive normally open)
- ■产品标准尺寸见下表:

Product standard sizes are shown in the following table:

设备名称 Equipment name	路数 Number of ways	外形尺寸mm Outline dimensions (mm)			安装尺寸mm Installation dimensions (mm)		备注
		宽 A	一 同 B	深 C	宠 D	一 同 E	Remarks
航行信号灯控制面板 navigation and signal light control panel	≤18	192	288	50	167	263	Fig.1
	19~26	192	384	50	167	359	
航行信号灯控制箱 navigation and signal light control box	≤18	600	600	210	480	640	Fig.2
	19~26	600	700	210	480	740	



■ 航行信号灯控制箱 Navigation and signal light control box

■输出信号:综合报警信号(无源常开触点、 AC220V/2A) Output signal: general alarm signal (passive normally open contact, AC220V/2A) ■通信接口: 2路CAN、2路RS485 注: RS485信号满足"海上导航和通信系统2的标准串 行接口" IEC61162规范 Communication interface: 2-way CAN and 2-way RS485 Note: RS485 signals meet 'standard serial interface of maritime navigation and communication system 2' IEC61162 specification ■环境温度: -10°C~55°C

Working temperature: -10°C~55°C

■安装方式: 航行信号灯控制面板 嵌入式 航行信号灯控制箱 壁挂式

Installation:

Navigation and signal light control panel flush-type Navigation and signal light control box wall-mounted

■ 防护等级: 航行信号灯控制面板 IP20 航行信号灯控制箱 IP23 Protection grade: Navigation and signal light control panel IP20 Navigation and signal light control box IP23





# ▶ 型号命名

Model naming

产品型号:航行信号灯控制器 Product model: Navigation and signal light controller	НХК	- 🗌	/ 🗆
航行信号灯路数 Number of ways of navigation and signal light			
安装方式(系指主控面板的安装方式): Q:嵌入式,B:壁挂式 Installation(means the installation of control panel): Q: Flush-type, B: Wall-mounted			

## ▶选型说明

Selection description

- 例: HXK-16/Q
- 表示: 16路的航行信号灯控制器 (主控面板安装形式为嵌入式)
- For example: HXK-16/Q
- It means: 16-way navigation and signal light control panel(flush type of the control panel)

▶ 系统图 System diagram

		Naviga	航行信号灯控制面板 Navigation and signal light cont			
				自带电缆 Own cable		
		Navig		弓灯控制箱 ignal light cor		
<u>主电源输入 (AC220V输入)</u> Main power supply input(AC220V input)	备用电源输入(AC220V输入) Standby power supply input(AC220V input)	输入信号(无源常开触点) Input signal (passive normally open contact)	输出信号(无源常开 <u>触点)</u>	至VDR (RS485信号) To VDR (RS485 signal) — — — — — —		



ontrol panel

ontrol box

至船上各灯 (按照实际用途配置) To the lights on the ship (Configure according to the actual use)