

AHD-DPS02

Navigation and Signal Lights Control and Monitoring System

Control and monitoring of up to 42 lights

Conventional or LED lights monitorable

Maintenance-free (no need to replace fuses after a short circuit)

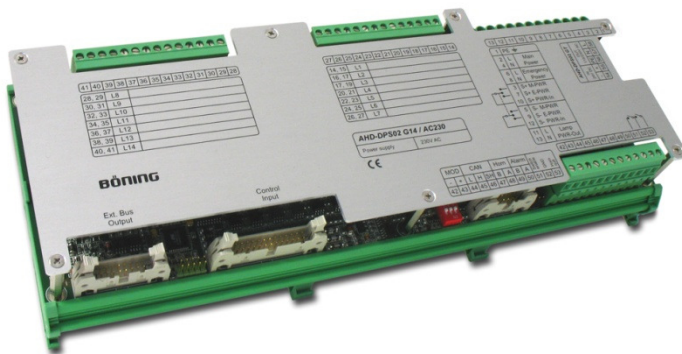
Operation via customized control panel and touchscreen or standard PC

Approval: GL, LR

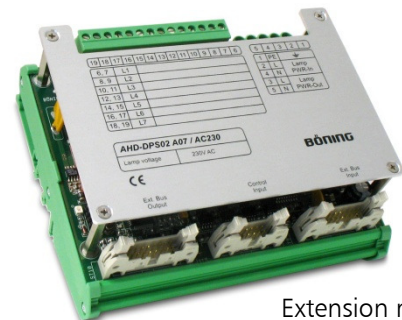
Colour display with individual graphic and touchscreen operation



Customized control panel



Basic module for 14 lights



Extension module for 7 lights

LED light



Light bulb



Introduction

The modular-designed *AHD-DPS02* controls and monitors navigation and signal lights on vessels. In darkness, or under bad light conditions, these lights give information over sailing direction. They are internationally obligatory for the identification of vessels and serves to avoid collisions. The unit can be adapted to prevailing conditions due to its modular construction.

Flexible configuration

The system comprises:

- **Basic module (14 lights)**
- **Up to 4 extension modules (7 lights each)**
- **Control panel (various designs possible)**

The minimum configuration comprises a basic module for 14 lights and a standard control panel. Depending on requirements, the number of lights can be extended to 42 by adding extension modules of 7 lights each. By applying more than one basic modules, an arbitrary number of lights can be controlled and monitored. The modules are encased in housings, suitable for rail mounting. The lights are controlled by means of a control panel with LED status lamps. Depending on requirements, control panels can be supplied either in the standard size (144/192/288x144mm) or to customer's order. Additional control via touchscreen display or PC is possible.

Reliable supply

The System is available in different versions on voltages common to vessels, e.g. 24 VDC, 115 VAC and 230 VAC. Power is either drawn from main or emergency supply. In case of power failure, the emergency supply is switched on manually. In either case, the power supply is monitored permanently. Regardless of power source, the internal voltage is automatically generated and transmitted to the extension modules. When switched

off, both light contacts are separated from the power supply by means of relays. The inputs are short-circuit proof and maintenance-free. There is no need to replace fuses. Function of the lights is guaranteed, even at failure of the electronic.

Ease of operation & reliable monitoring

Each light circuit is represented on the control panel by a button and an indicator LED. In the event of short-circuit or wire break within a circuit, an alarm message is signalled at the affected channel.

The control panel indicates the following information:

- **Light off (LED off)**
- **Light on (LED on)**
- **Light defective (flashing LED)**

In the event of an alarm being triggered, in addition to the respective LED an integrated buzzer is activated. (external buzzer optional). The buzzer is deactivated by pressing 'horn quit'. The LED continues to flash until the affected channel is switched off or repaired. There is an automatic dimmer controlled by a photo cell for all LEDs on the control panel.

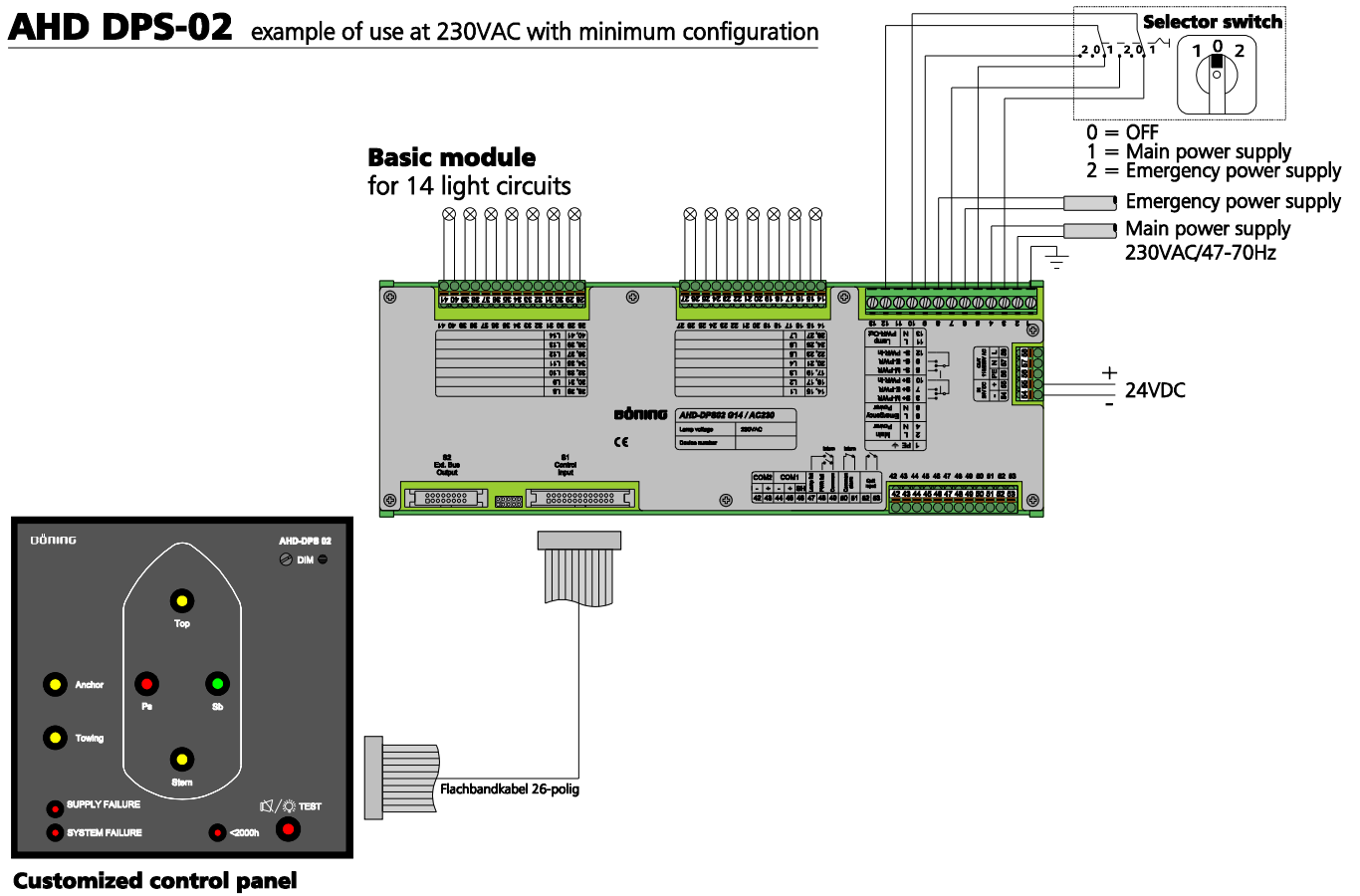
Service monitoring

An additional feature is that the operating hours and the number of switching cycles can be recorded. Thus displays information on service life of lights and need for replacement. This function is prescribed for LED lights.

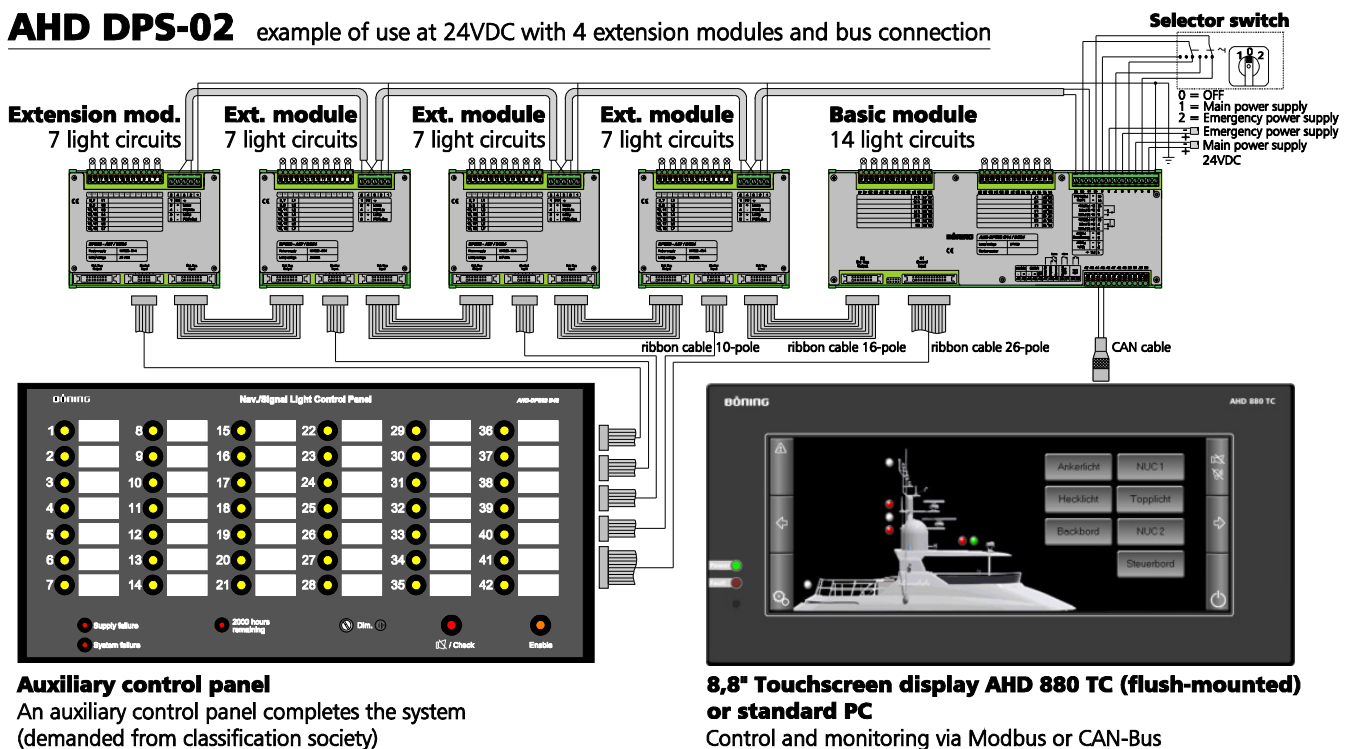
Connection to other systems

A collective alarm (opener) contact is available for integration within an alarm system. The basic module is designed with three interfaces for the connection of control panels. The standard control panel or custom variations can be connected via the serial interface. The CAN bus or Modbus enables connection of complementary systems for enhanced visualization.

AHD DPS-02 example of use at 230VAC with minimum configuration

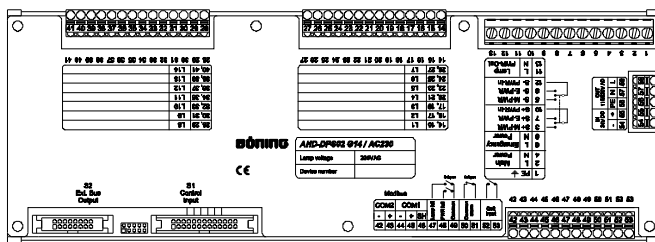
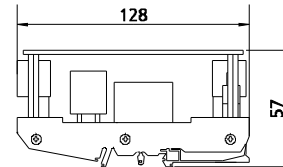
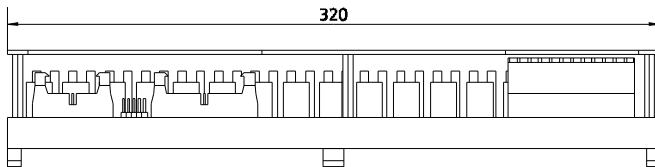


AHD DPS-02 example of use at 24VDC with 4 extension modules and bus connection



Dimensions

Basic module versions: AHD-DPS02 G14 ... /DC24 /DC24LED /AC115 /AC230

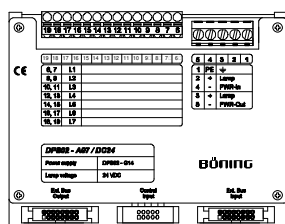
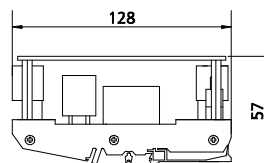
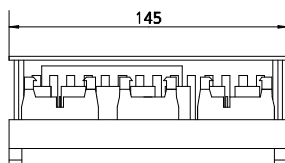


Technical Data

Power supply:	24VDC (18...32VDC)
	115VAC
	230VAC
Power consumption:	100...420mA (24VDC)
Operating temperature:	-25°C...70°C
Storage temperature:	-30°C...85°C
Weight:	0.98 kg
Degree of protection:	IP 20
External dimensions:	320 x 128 x 57 mm
In-/outputs:	1 x serial
	1 x panel communication
	1 x CAN-Bus
	14 relay inputs
	14 lights
Assembly:	on rail TS 32 and TS 35

Dimensions

Extension module versions: AHD-DPS02 A07 ... /DC24 /DC24LED /AC115 /AC230



Technical Data

Power supply:	24 VDC (18...32 VDC)
	115 VAC
	230 VAC
Power consumption:	120...380 m A
Operating temperature:	-25°C...70°C
Storage temperature:	-30°C...85°C
Weight:	0.54 kg
Degree of protection:	IP 20
External dimensions:	145 x 128 x 57 mm
In-/outputs:	7 relay inputs
	7 lights
Assembly:	on rail TS 32 and TS 35