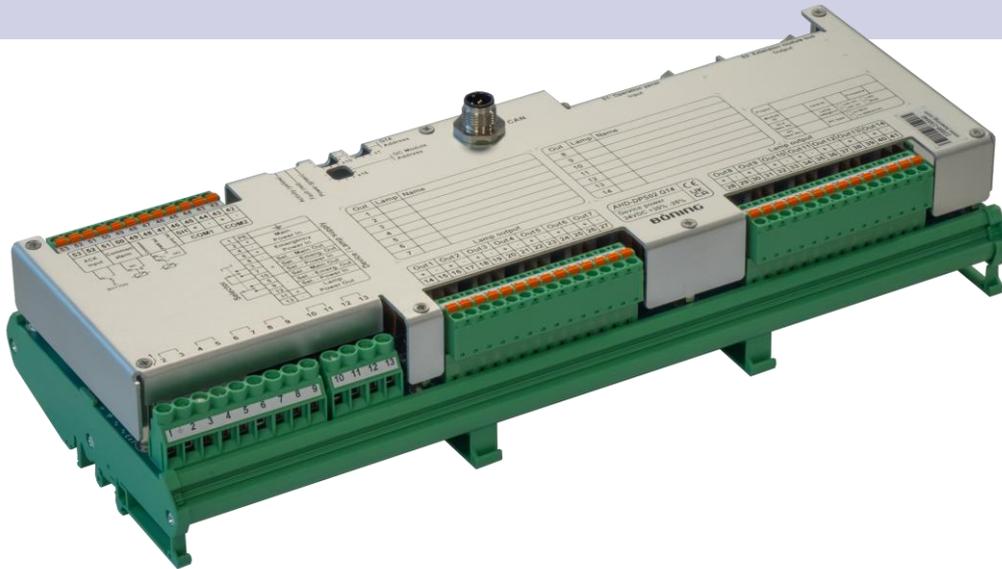


AHD-DPS02 G14 Basic Module

Navigation and Signal Lights Control and Monitoring



- **AHD-DPS02 G14 central basic module for controlling and monitoring navigation and signal lights with 14 integrated lamp circuits**
- **Expandable with a maximum of 4 AHD-DPS02 A07 expansion modules for controlling and monitoring a total of 42 lamp circuits**
- **Each lamp circuit is individually fused; in the event of a short circuit or wire break an alarm is triggered**
- **Integrated fail-safe feature: in the event of an electronic malfunction, the lamp switching function remains fully operational via the conventional control units AHD-DPS02 BS / B14...42 or emergency control AHD-DPS02 E14**
- **Permanently monitored main and emergency power supply, switchable via external selector switch**
- **Storage of operating time and switching cycles per lamp circuit with warning message when lamp life is reached**
- **Integrated CAN bus for remote control via Böning-SAS system**
- **Additional CAN bus or RS485/RS422 interface for processing external protocols through optional integration of an AHD-DPS02 GC interface module (various versions available)**
- **Versions for 115 VAC or 230 VAC as well as 24 VDC available**
- **Direct serial connection for control units AHD-DPS02 BS / B14...42 or emergency control AHD-DPS02 E14 via ribbon cable**
- **Module housing for installation on standard mounting rails in desks, consoles, switchboards, or switch boxes**
- **Approvals: ABS, BV, CRS, DNV, LR, PRS, RINA**

Description

The AHD-DPS02 G14 is used to control and monitor navigation and signal lights on ships. Multiple safety circuits allow it to be used as a classified system:

- Dual power supply for main and emergency power with separate voltage monitoring.
- All lamp circuits with 2-pole shutdown and integrated overload protection
- Monitoring of all lamp circuits, alarm in case of short circuit or wire break.
- Internal direct connection for all navigation and signal lights, so that they can still be controlled even if the electronics fail.
- Operating hours monitoring for LED lanterns with early replacement warning.

The system has a modular design and can therefore be easily adapted to specific requirements. Seven versions are available to accommodate different lamp voltages (24 VDC, 115 VAC, or 230 VAC) and lamp types (filament or LED). A complete system consists of:

- Basic module AHD-DPS02 G14 with 14 integrated lamp circuits
- up to 4 AHD-DPS02 A07 expansion modules (each with 7 lamp circuits)
- AHD-DPS02 BS / B14...42 control unit (various versions)
- Optional switch units for basic and expansion module (emergency control)

The lamps are controlled as standard via separate Böning control units of type AHD-DPS02 BS / B14...42. The CAN bus integrated in the basic module allows alternative lamp control via the touchscreen of a Böning display or PCs of the AHD series.

When using remote control, we recommend using the optional switch unit AHD-DPS02 E14. This is connected directly to the basic module AHD-DPS02 G14 and serves as an emergency control in the event of a communication failure.

AHD-DPS02 G14 is supplied in a profile housing for top-hat rail mounting.

Minimum configuration

The minimum configuration consists of an AHD-DPS02 G14 base module with a maximum of 14 lamp channels and an AHD-DPS02 BS or AHD-DPS02 B14 control unit.

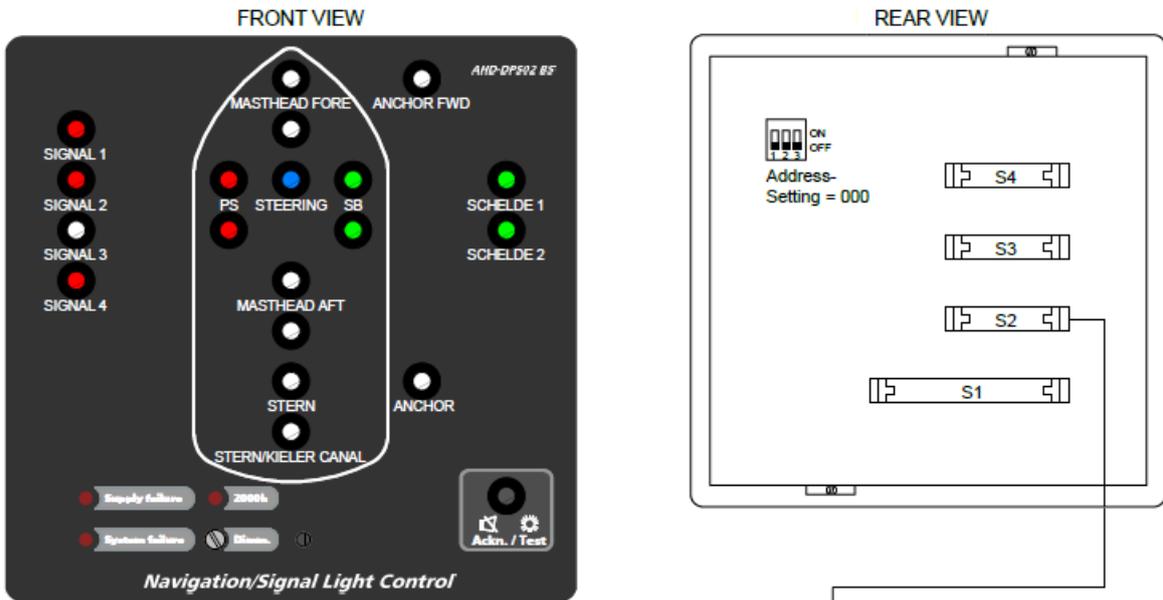
External interfaces

On request, the AHD-DPS02 G14 basic module can be expanded with an interface module. This is plugged directly onto the circuit board and allows external components to be connected. Depending on the type, the AHD-DPS02 GC module supports various protocols, including Modbus / NMEA 0183 (RS485/422) for controlling a VDR (Voyage Data Recorder). External lamp control and monitoring is also possible via ModBus or CAN.

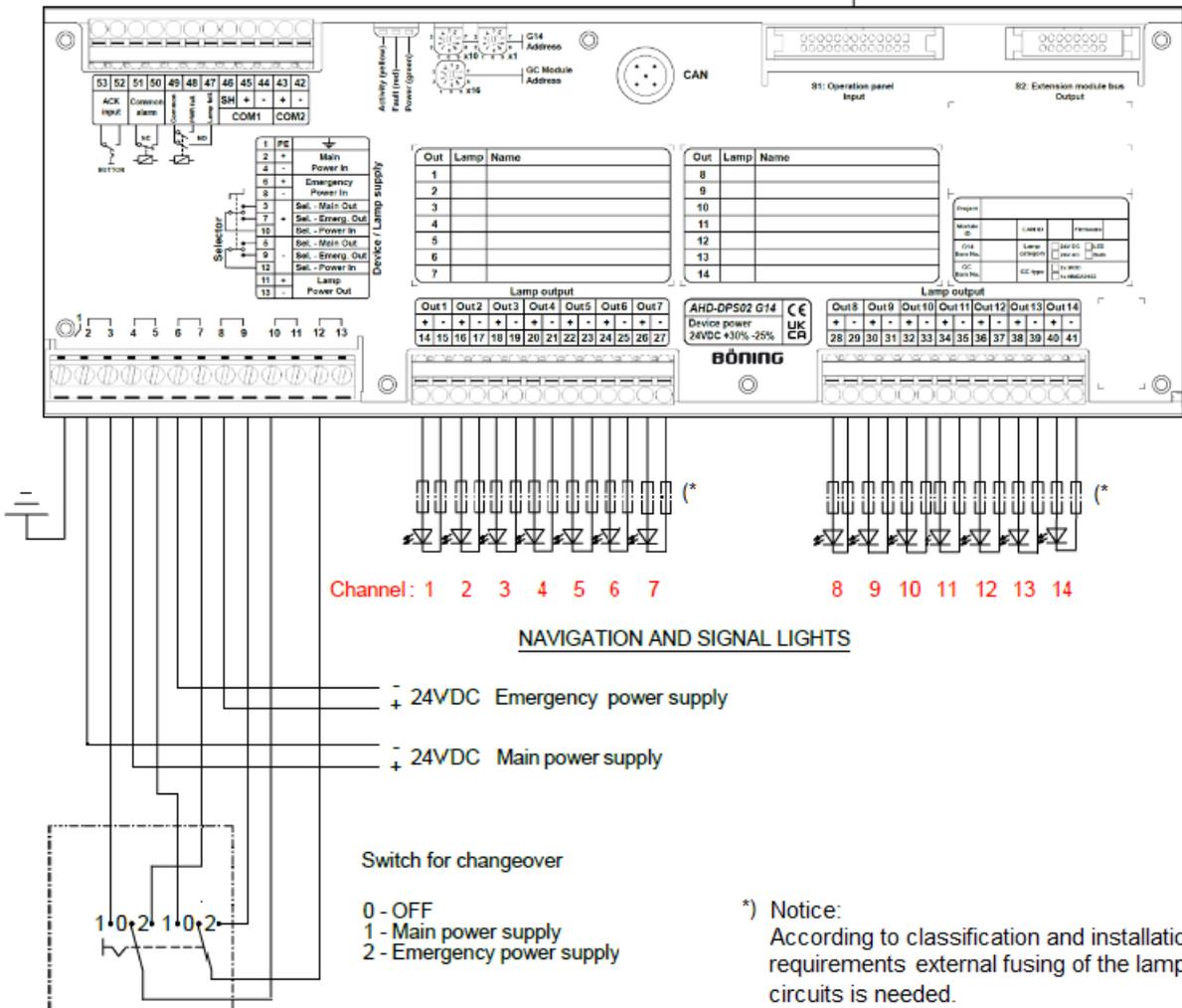
Alarm contacts

For the direct forwarding of fault messages to a higher-level alarm system, additional relay contacts for collective alarm (1x NC contact) and voltage and lamp faults (2x NO contacts) are integrated.

Application AHD-DPS02 G14 - Minimum configuration with 14 lamp circuits



2m, 26-pole ribbon cable



AHD-DPS02 G14

Navigation light monitoring – basic module with 14 lamp channels

7 versions for 24VDC, 115VAC, 230VAC (incandescent or LED lamp) and 24VAC (incandescent lamp)

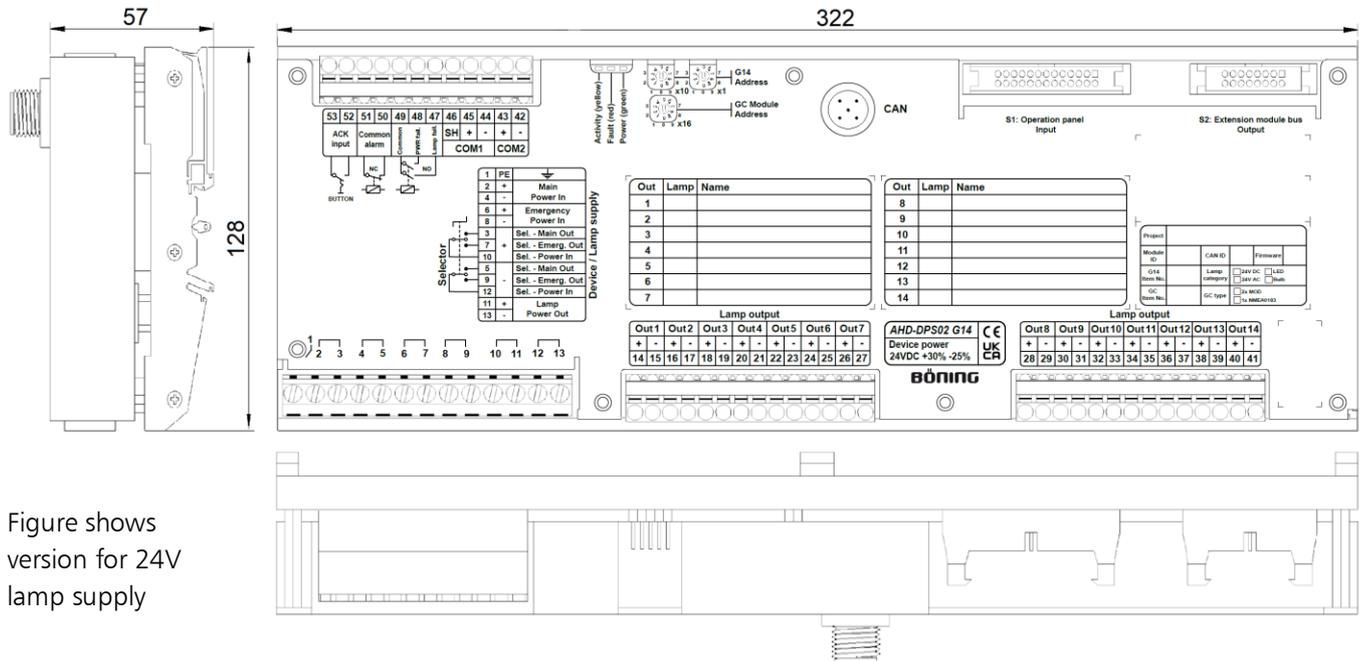


Figure shows version for 24V lamp supply

Technical data

AHD-DPS02 G14 (V2) basic module

Power supply (electronic unit)	24 V DC (+30% / -25%)
Current consumption	100...420 mA (24 VDC)
Lamp voltage (depending on model)	24 V DC (+30% / -25%) 115 V AC / 47...65 Hz 230 V AC / 47...65 Hz
Operating temperature	-25 °C...70 °C
Storage temperature	-30 °C...85 °C
Weight	0.98 kg
Protection class	IP 20
External dimensions	322 x 128 x 57 mm
Inputs/outputs	14x lamp output, 2-pole switched and fused 3x output (relay contact, switching voltage max. 32 VDC)
Interfaces	2x internal communication bus (control unit, stacking module) 1x CAN bus Optional via AHD-DPS02 GC: Modbus RS485/422/CAN
Installation	On TS 32 and TS 35 rail
Approvals	ABS, BV, CRS, DNV, LR, PRS, RINA

Item no.	Voltage / Lamp type
22893	24 VDC bulb
22894	24 V AC bulb
22892	115 VAC bulb
22891	230 VAC bulb
22895	24 V DC LED
22914	115 VAC LED
22913	230 VAC LED