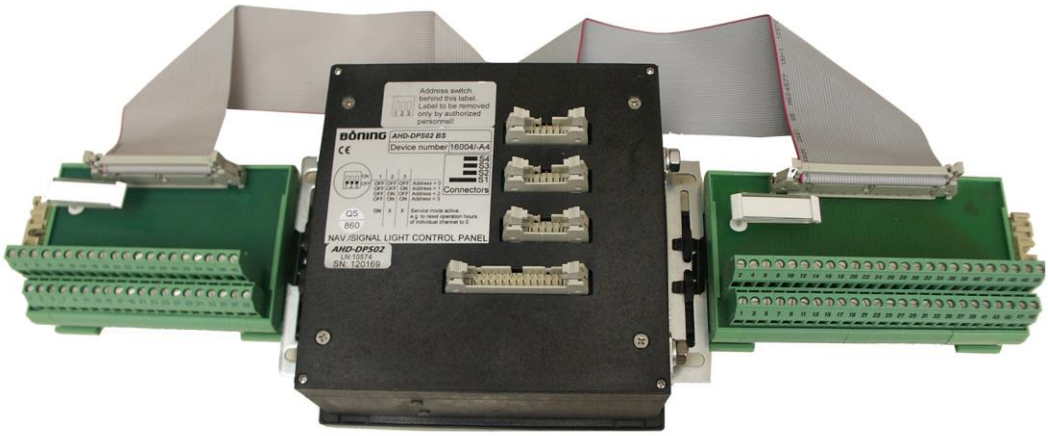
AHD-DPS02 BS Adapter
Position and Signal Light Control and Monitoring



- ***Mimic Panel Adapter for Position and Signal Light Control AHD-DPS02 G14 / AHD-DPS02 A07***
- ***Module for connecting a custom control panel for control and monitoring of up to 35 position and signal lights***
- ***Free terminal connections for control elements and LED indicators (lamp feedback and error indicators)***
- ***Direct connection to the AHD-DPS02 G14 base module and the AHD-DPS02 A07 expansion module via a pre-assembled ribbon cable***
- ***Automatic dimming of the LED indicators, adjustable***
- ***Integrated alarm buzzer and acknowledgment button***
- ***Module housing mounted on a top-hat rail, including terminal blocks***
- ***Approvals: ABS, BV, CRS, DNV, LR, PRS, RINA***

Description

The AHD-DPS02 system is used to control and monitor position and signal lights on ships.

The AHD-DPS02 BS Adapter is a module for connecting a customer-specific mimic panel to control and monitor up to 35 lamp channels.

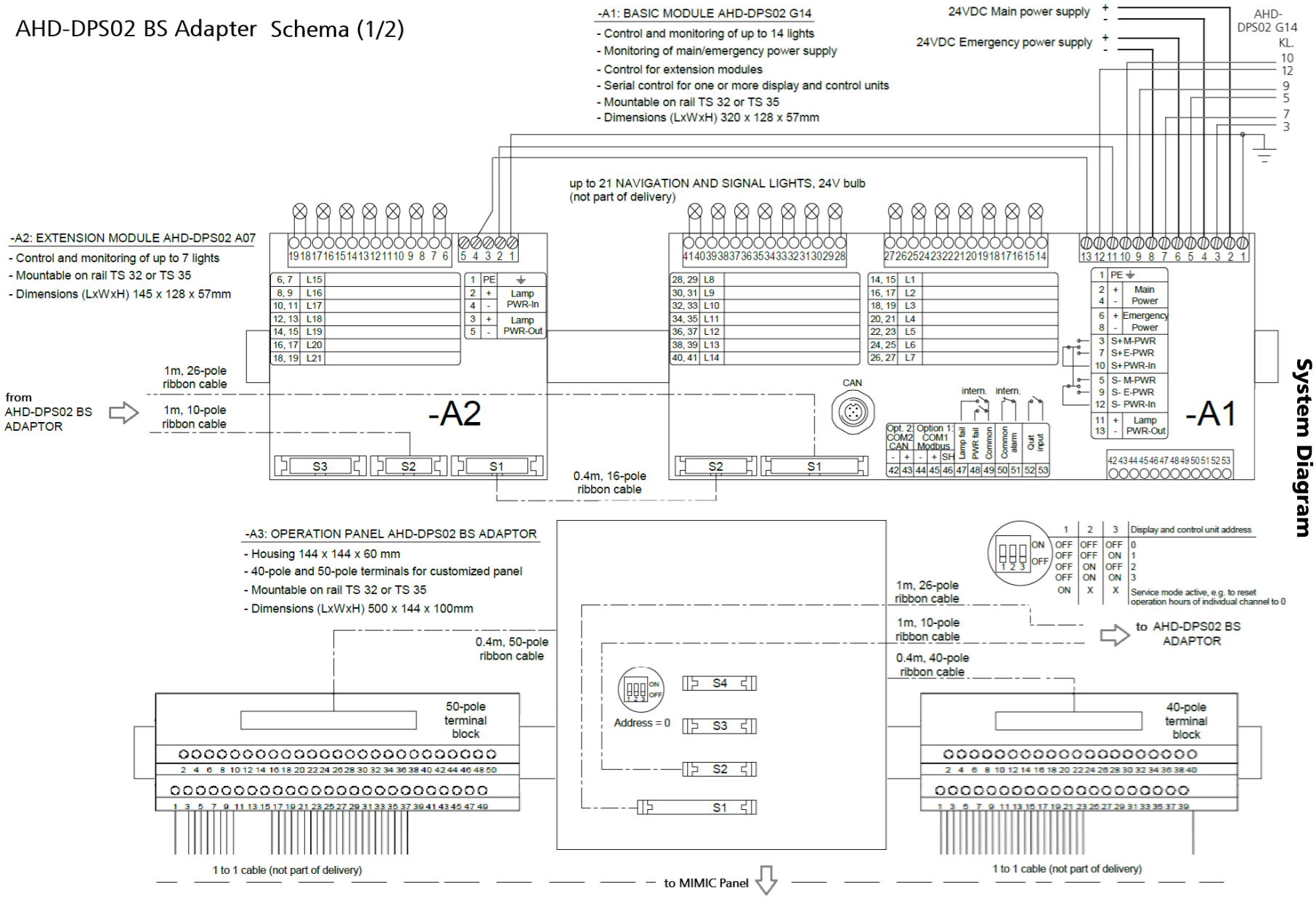
All control elements and LED indicators required for the position and signal lights can be freely arranged at the factory, for example, according to a customer-specific mimic panel layout.

All functions of the standard control units (AHD-DPS02 BS) are available via two terminal blocks (40- and 50-pin), and wiring to the Mimic panel is carried out via screw-type terminal connections. The range of functions includes LED feedback in case of lamp failure, a dimming function for LED indicators, an alarm buzzer, and a quitter function, as well as other error messages.

The device is connected directly via ribbon cables to the base module AHD-DPS02 G14 and the expansion modules AHD-DPS02 A07.

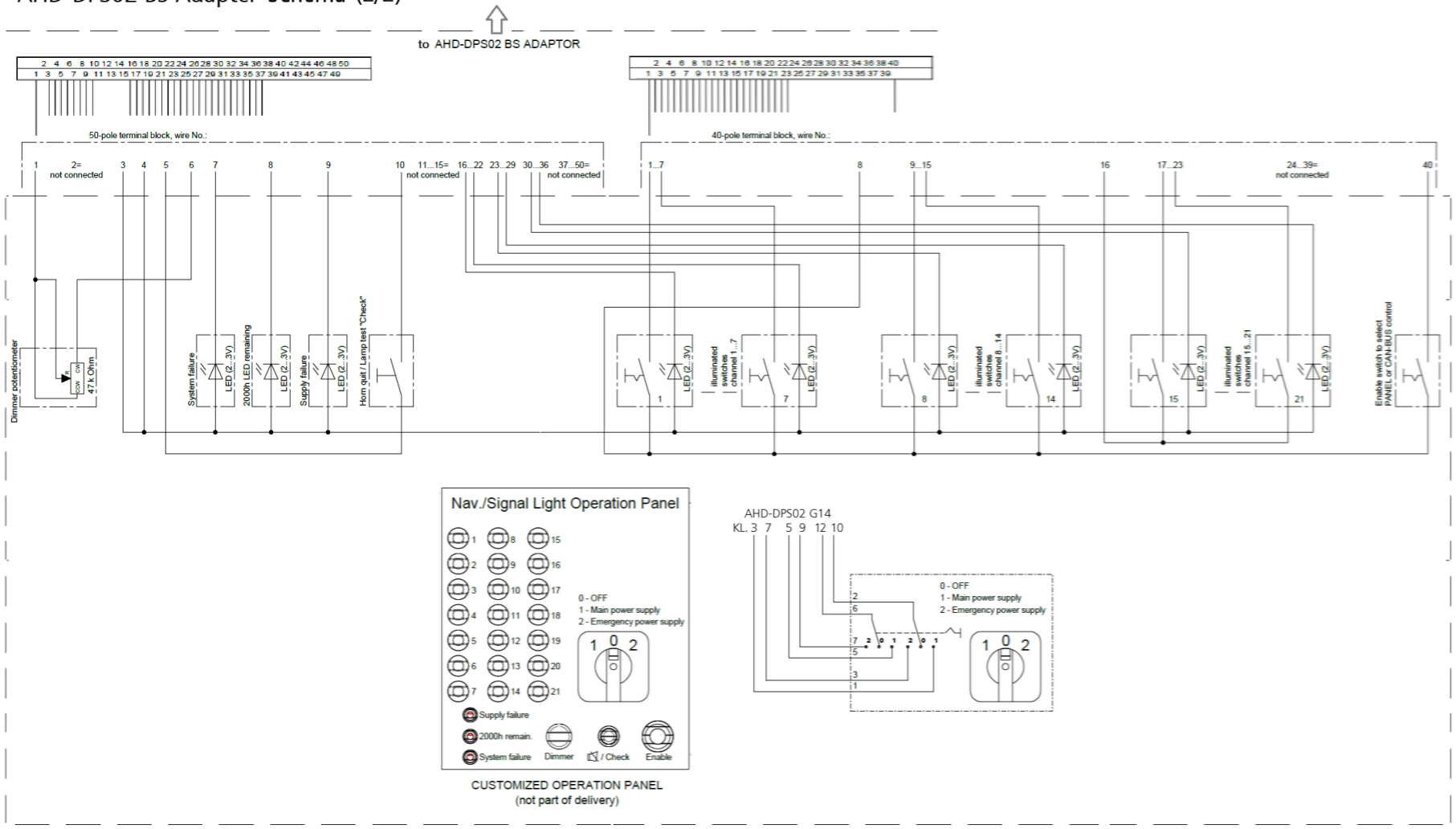
BÖNING
SHIP AUTOMATION

AHD-DPS02 BS Adapter Schema (1/2)



System Diagram

AHD-DPS02 BS Adapter Schema (2/2)



Terminal blocks

A) Wiring for 40-pin ribbon cable

Wire	Description
1	Switch 1
2	Switch 2
3	Switch 3
4	Switch 4
5	Switch 5
6	Switch 6
7	Switch 7
8	Common Minus Switches 1–14
9	Switch 8
10	Switch 9
11	Switch 10
12	Switch 11
13	Switch 12
14	Switch 13
15	Switch 14
16	Common Negative Switches 15–21
17	Switch 15
18	Switch 16
19	Switch 17
20	Switch 18
21	Switch 19
22	Switch 20
23	Switch 21
24	Common Negative Switches 22–28
25	Switch 22
26	Switch 23
27	Switch 24
28	Switch 25
29	Switch 26
30	Switch 27
31	Switch 28
32	Common Negative Switches 29–35
33	Switch 29
34	Switch 30
35	Switch 31
36	Switch 32
37	Switch 33
38	Switch 34
39	Switch 35
40	ENABLE switch (connected to wires 40 and 8) [1]

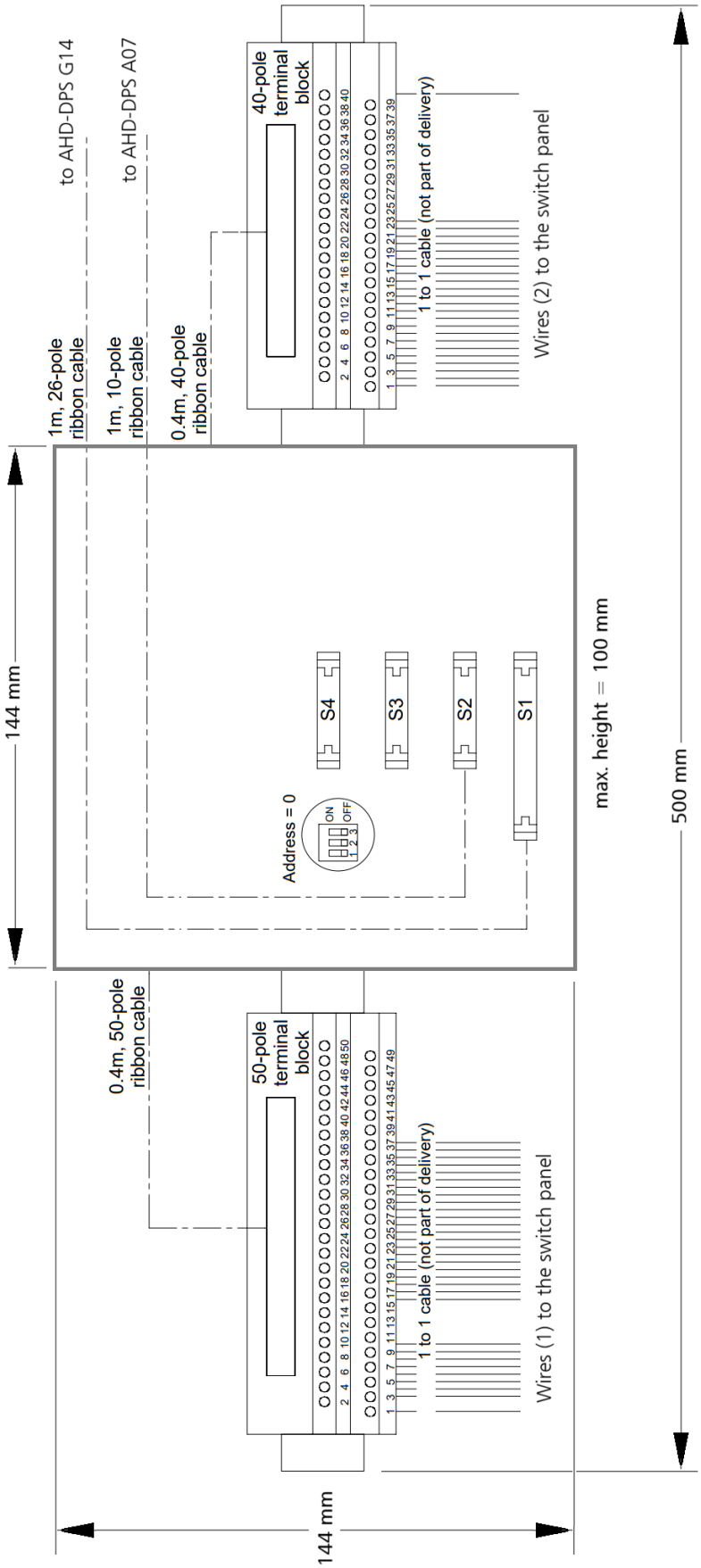
[1]) The ENABLE switch is only required if the system can be remotely controlled via an interface. If this is not the case, jumper JP1 must be set on the backplane.

B) Wiring: 50-pin ribbon cable

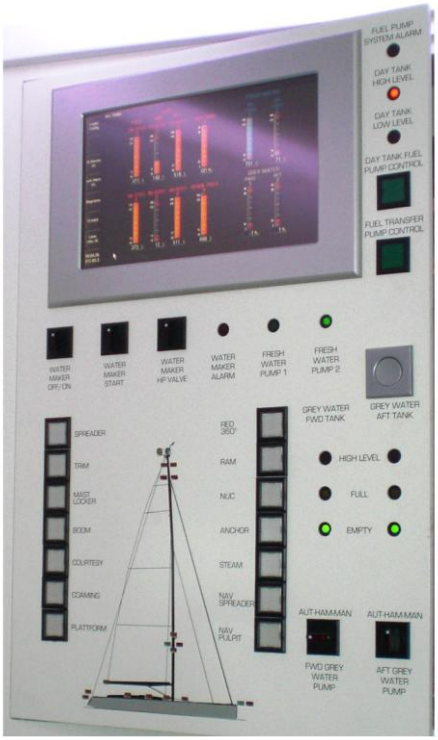
Wire	Description
1	LDR / Dimmer potentiometer (connected in parallel) [2]
2	Not used
3	Common LED Plus (+)
4	Common LED Plus (+)
5	Horn Confirmation / Light Test (Test Button)
6	LDR / Dimmer Potentiometer (connected in parallel) [2]
7	LED Negative (GND) System Error
8	LED Negative (GND) 2,000 hours remaining
9	LED Negative (GND) Main or emergency power failure
10	Horn Acknowledgment / Light Test (Test Button)
11	Not used
12	Not used
13	Not used
14	Not used
15	Not used
16	LED Minus Lamp X1
17	LED Minus Lamp X2
18	LED Minus Lamp X3
19	LED Minus Lamp X4
20	LED Minus Lamp X5
21	LED Minus Lamp X6
22	LED Minus Lamp X7
23	LED Minus Lamp X8
24	LED Minus Lamp X9
25	LED Minus Lamp X10
26	LED Minus Lamp X11
27	LED Minus Lamp X12
28	LED Minus Lamp X13
29	LED Minus Lamp X14
30	LED Minus Lamp X15
31	LED Minus Lamp X16
32	LED Minus Lamp X17
33	LED Minus Lamp X18
34	LED Minus Lamp X19
35	X20 LED Minus Lamp
36	LED Minus Lamp X21
37	LED Minus Lamp X22
38	LED Minus Lamp X23
39	LED Minus Lamp X24
40	LED Minus Lamp X25
41	LED Minus Lamp X26
42	LED Minus Lamp X27
43	LED Minus Lamp X28
44	LED Minus Lamp X29
45	LED Minus Lamp X30
46	LED Minus Lamp X31
47	LED Minus Lamp X32
48	LED Minus Lamp X33
49	LED Minus Lamp X34
50	LED Minus Lamp X35

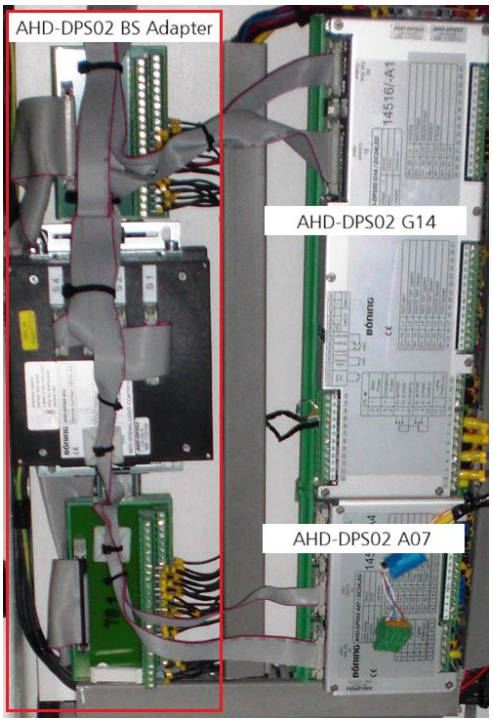
[2]) The "CCW" potentiometer contact (low resistance to the potentiometer's center contact when turned counterclockwise) is connected to wire 1 together with the potentiometer's center contact and one wire from the photoresistor. The remaining "CW" potentiometer contact is connected to wire 6 together with the remaining free connection from the photoresistor.

Dimensions


to AHD-DPS G14
to AHD-DPS A07
1m, 26-pole ribbon cable
1m, 10-pole ribbon cable
0.4m, 40-pole ribbon cable
40-pole terminal block
1 to 1 cable (not part of delivery)
Wires (2) to the switch panel
144 mm
S4
S3
S2
S1
Address = 0
ON
OFF
1 2 3
max. height = 100 mm
500 mm
0.4m, 50-pole ribbon cable
50-pole terminal block
1 to 1 cable (not part of delivery)
Wires (1) to the switch panel
144 mm

Mimic Panel (application example)





Technical Specifications for the AHD-DPS02 BS Adapter

Power Supply (via AHD-DPS02 G14)	24 V DC (+30% / -25%)
Current Consumption of Adapter	50–150 mA (typ.)
Operating temperature	-25 °C ... 70 °C
Storage temperature	-30 °C ... 85 °C
Weight	0.54 kg
Protection class of electronics module	IP 20
External dimensions	500 x 144 x 100 mm
Inputs / Outputs	35 x control elements (switches) 1 x Horn Quit / Lamp Test 1 x System failure 1 x Lamp life reached 1 x Power supply failure 35 x Lamp status (LED)
Interfaces	1 x connector to the base module (14 lamp control channels) 3 x connector to the expansion modules (3 x 7 lamp control channels)
Installation	Control cabinet / DIN rail
Approvals	ABS, BV, CRS, DNV, LR, PRS, RINA
Part No.:	16953