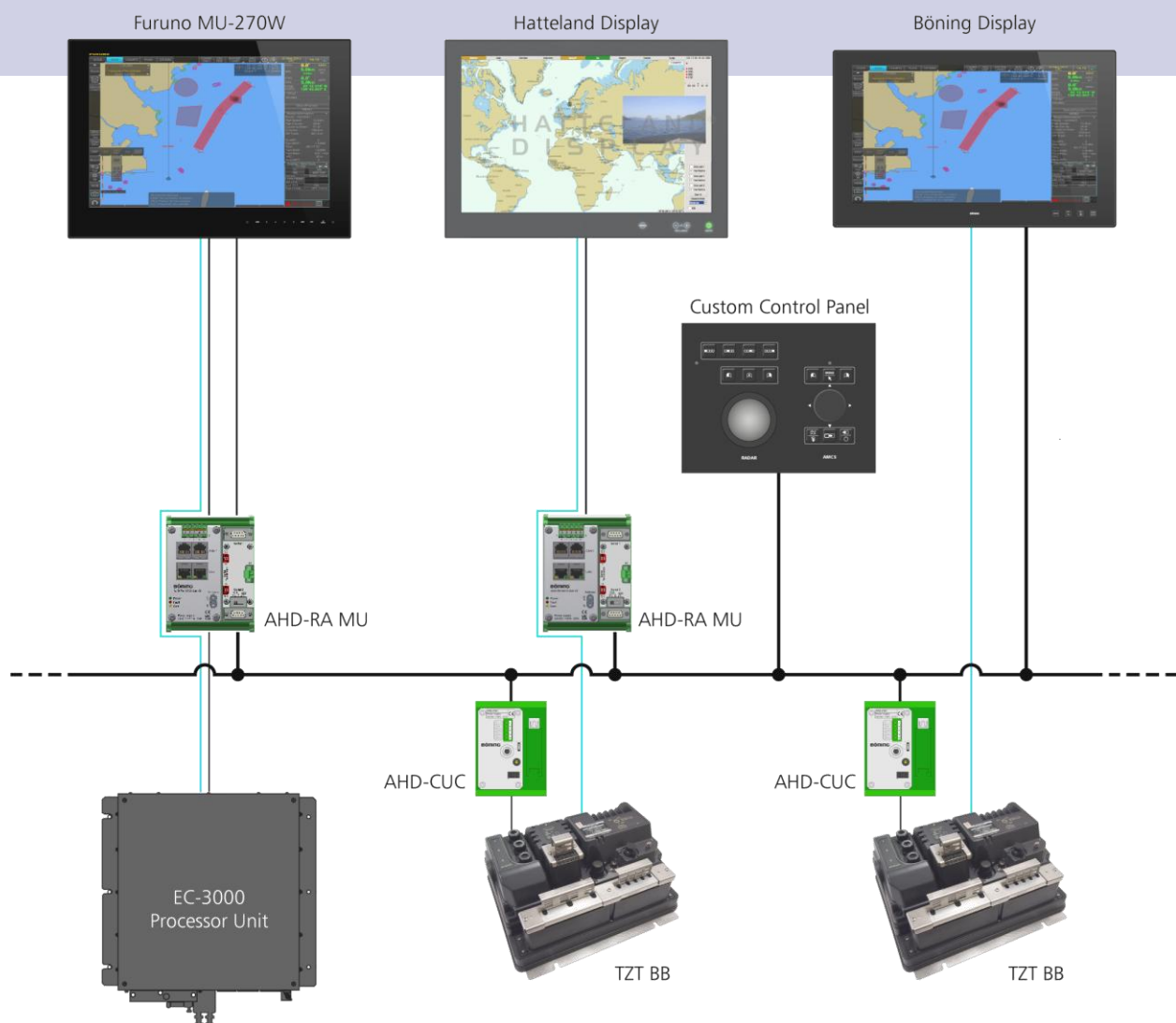


AHD-RA MU Clamp V2 / AHD-RA MU D-Sub V2 Display Remote Control



- **Integration and remote control of displays from third-party manufacturers**
- **Switching, control, and dimming via the Böning Remote-CAN**
- **AHD RA MU D-Sub V2 with integrated fail-safe control allows operation via original controllers in the event of a device malfunction or CAN bus failure**

AHD RA MU The AHD RA MU Clamp V2 and AHD RA MU D-Sub V2 are protocol converters designed for remote control of third-party displays (such as Hatteland, Furuno, Seada, or Neovo) via the Böning Remote CAN. Control commands are converted into the appropriate format and forwarded to the displays; communication occurs via RS232/485 by default.

The AHD RA MU D-Sub V2 (for peer-to-peer control) features an integrated emergency control function. In the event of a malfunction, data is rerouted via the "Serial 2" port, which is connected to the manufacturer's original controller.

The AHD RA MU Clamp V2 enables simultaneous control of multiple displays via a shared bus.

Provided that the protocols are implemented in the displays used, the following functions can be controlled via the Remote-CAN:

- Turning the displays on and off
- Automatic or manual dimming of the backlight
- Selecting the video source (depending on the display type)
- General control commands (depending on the display type)

Views and dimensions

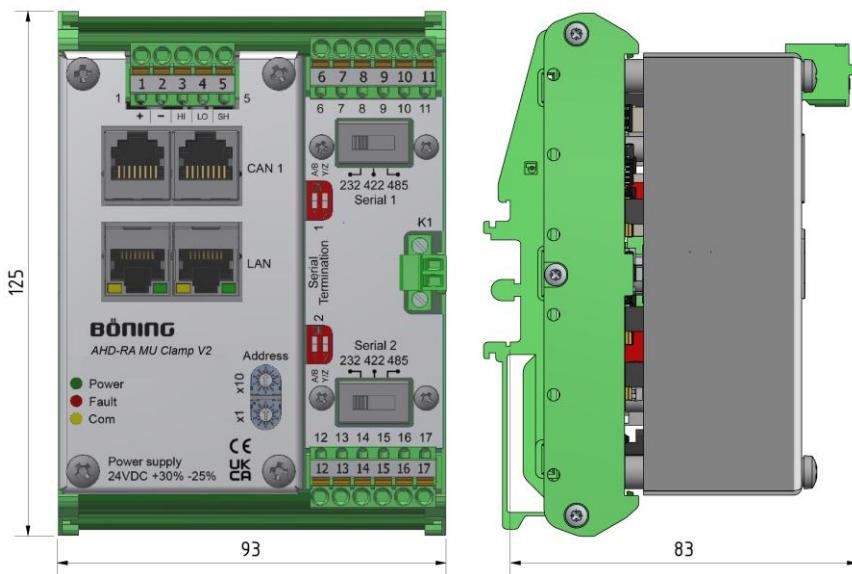


Fig. AHD-RA MU Clamp V2

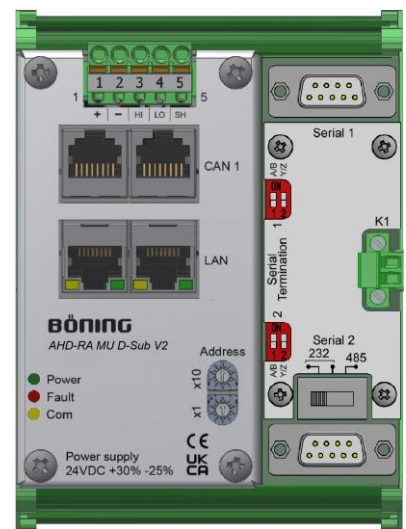


Fig. AHD-RA MU D-Sub V2

Pin assignment AHD-RA MU Clamp V2

Serial 1	6	7	8	9	10	11	Serial 2	12	13	14	15	16	17
RS232	TX	RX	GND	NC	NC	-	RS232	TX	RX	GND	NC	NC	-
RS422 (4wire)	Y+(Tx)	Z-(Tx)	GND	A+(Rx)	B-(Rx)	-	RS422 (4wire)	A+(Rx)	B-(Rx)	GND	Y+(Tx)	Z-(Tx)	-
RS485 (2wire)	NC	NC	GND	A+/Y+	B-/Z-	-	RS485 (2wire)	NC	NC	GND	Y+/A+	Z-/B-	-

Pin assignment AHD-RA MU D-Sub V2 (Mode switch 232/485 applies to Serial 1 and 2)

Serial 1	1	2	3	4	5	6	7	8	9	Serial 2	1	2	3	4	5	6	7	8	9
RS232	-	Rx	Tx		GND				-	RS232	-	Tx	Rx		GND				-
RS485 (2wire)	-					B-/Z-		A+/Y+	-	RS485 (2wire)	-					Z-/B-		Y+/A+	-

Technical Data

Dimensions 93 mm x 125 mm x 83 mm
(Allow additional depth of approximately 80 mm for connectors and wiring)

Weight Ca. 0.35 kg

Ambient temperature -20°C ... +60°C

Storage temperature -30°C ... +80°C

Protection class IP 22 (front)

Power supply 24 V DC (+30% / -25%)

Current consumption Max. 140 mA (24 V DC)

Installation DIN rail

Item number

21377 AHD-RA MU D-Sub V2

21378 AHD-RA MU Clamp V2

Interfaces 1 x CAN:
CAN1- connection via 2 x RJ45 (In/Out) or terminals no. 3-5

1 x LAN:
Connection via 2 x RJ45 (pass-through via integrated switch)

2 x serial (NMEA 0183)
- Depending on version, routed out to SUB-D9 or clamp
- Depending on version and interface, RS232, RS485, or RS422 mode can be selected via a switch, termination is selectable on device

Output (NO) 1 x relay contact (on K1, pin 1-2)