

Front and rear view of the device

## PA Systems | Product family CURA

# IP PA System with integrated amplifiers - Expansion Unit

The CURA expansion unit with two 100 W amplifiers complements the CURA system to more PA output circuits. An existing CURA base unit can be expanded with up to 7 CURA expansion units. On the basis of this modularity, the CURA system can be set up with up to 16 x 100 W amplifiers (2 x 100 W amplifiers in each CURA unit). The CURA expansion unit allows customizing the CURA system for different sizes of stations and number of loudspeaker circuits. The available interfaces ports in a CURA unit can be supplemented by optional expansion modules. The CURA system integrates smoothly into our customer's environment.

- Impedance monitoring for speaker lines to detect short circuits, disconnection and defective loud speakers
- Configurable types of redundancy for output amplifiers (mutual take-over, N+1 redundancy or full redundancy)
- Power supply with 230 VAC and/or +48 VDC
- High availability, maintenance-free
- Qualified for railway application
- Optional use in voice alarm systems according to EN 54-16 with interface to fireman's microphone

## Functional Features

- Full digital signal processing
- 2 x 100 W output power per device at 100 V, electrically isolated with insulation monitoring
- Audio output
- Audio functions: delay, compressor, automatic level adjustment, optional: equalizer
- Monitoring of announcements on 100 V outputs via signal comparison

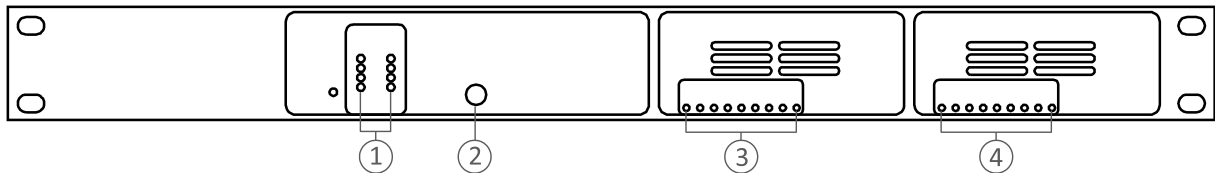
## Technical Description

General Properties	
Range of application	The expansion unit with two 100 W amplifiers to CURA IP PA System with integrated announcement device
Power Supply	200 – 260 V AC / 100 – 130 V AC (selectable), 47 – 63 Hz and / or 46 – 53 V DC
Power consumption	max. 260 W standby: ca. 25 W
Dimension (LxWxH)	483 x 320 x 44 mm 19 inches, 1 U
Weight	approx. 7 kg
Installation instructions	Installation in racks with 19 inches standard profile
Cable feed	Generally from back side
Degree of protection	IP20
Temperature range	Operation: -5 °C ... +55 °C
Cooling	passive, fanless
Front side display elements	LED indicators: <ul style="list-style-type: none"> <li>▪ voltage supply AC/DC</li> <li>▪ operation</li> <li>▪ voice alarm condition</li> <li>▪ failures (intern and extern malfunctions, power supply malfunction, amplifier/ loud speaker malfunctions)</li> </ul> Piezo buzzer
Front side operating elements	address switch
Extension slots	3 module slots optionally extendable with: <ul style="list-style-type: none"> <li>▪ audio-In module, 4 analog inputs</li> <li>▪ audio-Out module, 4 analog outputs</li> <li>▪ module with 8 digital inputs and 8 digital outputs</li> </ul>
Compliance	CE, RoHS, electrical safety and EMC EN 50121-4 (railway application) option: EN 54-16 (voice alarm system)

Interfaces	
AF output	2x audio output (onboard): <ul style="list-style-type: none"> <li>▪ electrically symmetrical</li> <li>▪ output level: 0 dBu</li> </ul> 4x audio output (extension module): <ul style="list-style-type: none"> <li>▪ features like audio inputs of the mainboard</li> </ul>
Fault message contact	see digital outputs

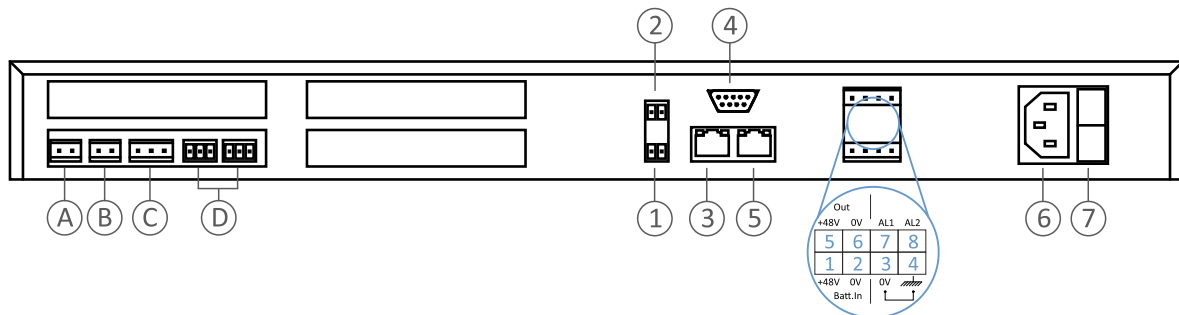
# Technical Description

Amplifier	
Amount, class	2, Classe D
Output power	100 W at 100 V
Distortion factor	< 1 % at nominal capacity
Galvanic isolation	Yes
Front side display elements	Voltage supply, defect on speaker line, short to ground, amplifier overload, amplifier error, input level, channel assignment



- |   |                        |   |                                |
|---|------------------------|---|--------------------------------|
| 1 | General status display | 3 | Status display for amplifier 1 |
| 2 | Address selector       | 4 | Status display for amplifier 2 |

Figure 1 Connection designation of the front view



- |   |                                      |   |                  |     |   |
|---|--------------------------------------|---|------------------|-----|---|
| A | Slot 2 (X1) 100 V output amplifier 1 | 1 | NF Out 1         | 7   | Power switch                              |
| B | Slot 2 (X2) 100 V output amplifier 2 | 2 | NF Out 2         | 1/2 | DC power supply +48 V                     |
| C | Slot 2 (X3) accident input           | 3 | Audio bus In     | 3/4 | Potential equalization, ground connection |
| D | Slot 2 (X4-X5)                       | 4 | reserved         | 5/6 | DC voltage output +48 V, max. 200 mA      |
|   |                                      | 5 | Audio bus Out    | 7/8 | Collective error alarm contact            |
|   |                                      | 6 | 230 V AC voltage |     |   |

Figure 2 Connection designation of the rear view

Order No.	
42.41001-0010 Cura - 2Ampl.100W+Ext	Cura Expansion unit with 2x100W amplifier (type CURA 23)
<i>Extensions module:</i>	
42.41002-0011 Cura – 4AudioIn	4x Audio-In module
42.41002-0012 Cura – 4AudioOut	4x Audio-Out module
42.41002-0013 Cura – 8/8GPIO	module with 8 digital inputs and outputs

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