

## IP PA System

# EXPANSION DEVICE



front view CuraG3 expansion device (preliminary)

The expansion unit with 2 x 250 W amplifiers supplements a 3rd generation IP PA system from the Cura® product family with additional power amplifiers and output lines. A 3rd generation PA system can consist of up to 20 devices that work together and are controlled and monitored by the base device.

## FUNCTIONAL FEATURES

- » full digital signal processing
- » redundant cabling between the devices with Ethernet patch cables
- » 2 x 250 W output power per device at 100 V
- » galvanically isolated speaker lines in pairs with insulation monitoring and separately monitored A/B line outputs
- » up to 40 amplifiers and 80 monitored line outlets possible
- » additional audio outputs
- » audio functions: delay, parametric equalizer, high/low control, limiter, automatic level adjustment
- » announcement monitoring at the signal feeds and the amplifier outputs by signal comparison
- » impedance monitoring for speaker lines to detect short circuits, disconnection and defective loud speakers
- » automatic disconnection of short-circuited line feeders
- » integrated average switching (various methods available depending on the application)
- » background music possible
- » supply with 230 V AC and/or +48 V DC
- » maintenance-free design due to fanless operation
- » optimized for use in standard rail environments
- » optional use as part of a voice alarm system in accordance with EN 54-16

## TECHNICAL DATA

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### GENERAL PROPERTIES

Range of application	Expansion device with 2 x 250 W amplifiers as part of a PA system
Power Supply	90 – 250 V AC, 47 – 63 Hz and/or +46 – 53 V DC
Protection class according to DIN EN 61140	Protection class I
Power consumption	max. 600 W Stand by: ca. 25 W
Dimension (L x W x H)	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 the rear side with optional cable trap plate
Degree of protection	IP20
Temperature range	Operation: -5 °C to +55 °C
Cooling	passiv, fanless
Front side display elements	LED indicators: - power supply AC/DC - Audio-bus link 1 and 2

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## TECHNICAL DATA

### GENERAL PROPERTIES

Extension slots	<p>4 module slots:</p> <ul style="list-style-type: none"> <li>- of these used: 1 x measurement and line cards</li> <li>- 3 slots free for: <ul style="list-style-type: none"> <li>- 4 x audio-in card</li> <li>- 4 x audio-out card</li> <li>- 8 x/8 x GPIO card with optional monitored input contacts</li> <li>- Card for expanding the parametric equalizer</li> </ul> </li> </ul>
Compliance	<p>CE, RoHS, electrical safety and EMC  EN 50121-4 (railway application)), for more see CE Declaration of Conformity  Option: EN 54-16 (voice alarm system))</p>

### GENERAL PROPERTIES

AF inputs	<p>no onboard  retrofittable with 4 x Audio-In card or parametric equalizer card</p>
AF output	<p>2 x audio output (onboard):</p> <ul style="list-style-type: none"> <li>- electrically symmetrical</li> <li>- output level up to +8 dBu</li> </ul> <p>further retrofittable with 4 x audio-out card or parametric equalizer card</p>
Switch inputs	<p>no onboard  retrofittable with 8 x/8 x GPIO card</p>
Switch output	<p>no onboard  retrofittable with 8 x/8 x GPIO card</p>

## TECHNICAL DATA

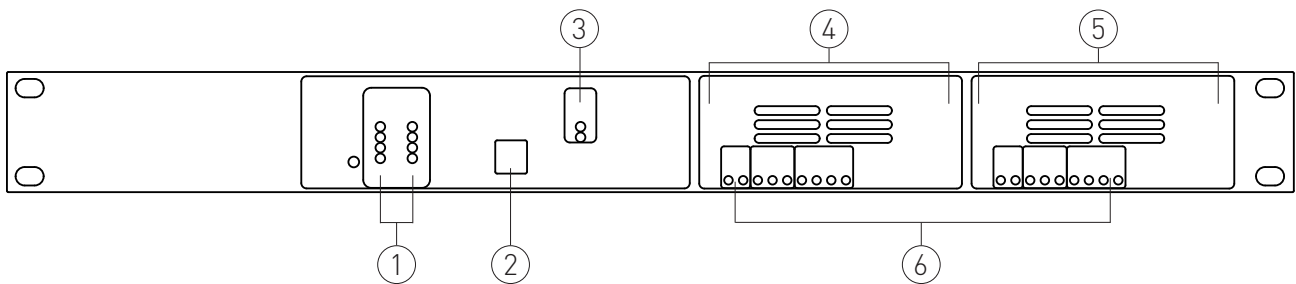
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AMPLIFIER	
Amount, class	2 amplifiers, class D
Output power	250 W per amplifier at 100 V
Distortion factor	< = 1 % at nominal capacity
Monitored output lines	8 (4 x amplifiers with A/B line outputs)
Galvanic isolation	one galvanic group per amplifier, the amplifiers are galvanically isolated from each other and from all other circuits
Front side display elements	Voltage supply, defect on speaker line, short to ground, amplifier overload, amplifier error, input level, channel assignment

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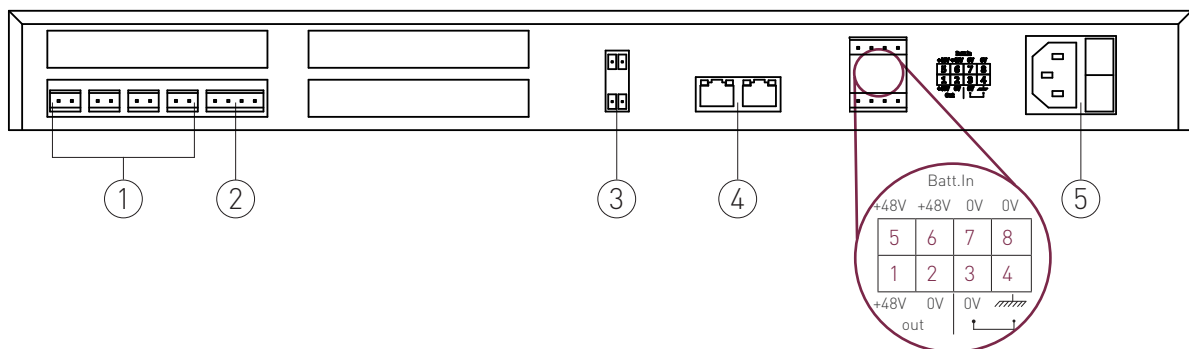
## TECHNICAL DATA

Figure 1 Connection designation of the front view



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|--------------------|------------------------------|
| 1 Status display   | 4 Amplifier 1                |
| 2 Address selector | 5 Amplifier 2                |
| 3 AudioBus Status  | 6 Amplifier status indicator |

Figure 2 Connection designation of the rear view



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|-----------------------|------------------------------|-----------------------------------------------------|
| 1 100 V Speaker lines | 4 AudioBus connections       | 1/2 +48 V DC auxiliary voltage output (max. 200 mA) |
| 2 Accident input      | 5 230 V input + power switch | 3/4 Potential equalisation, earth connection        |
| 3 AF outputs          |                              | 5-8 +48 V DC input                                  |

### ARTICLE NO.

3611.000-00101	CuraG3 expansion device with 2 x 250 W amplifier, expandable
(CuraG3 – 2Ampl.250W+Ext)	(Type Cura42C)