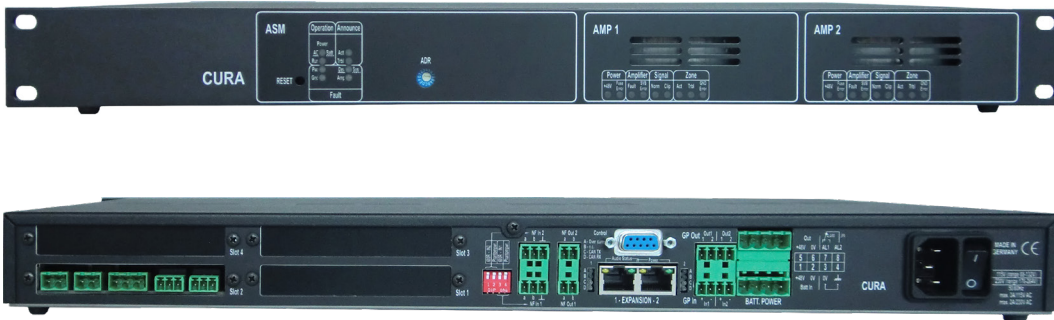


PA Systems | Product family CuraG2

## CURAG2



IP PA System with integrated announcement device and amplifiers – Basic device

### CURAG2 BASIC DEVICE

The IP PA System with integrated announcement device and two 250 W amplifiers is a compact and scalable PA system of the product line Cura. It combines all features of an announcement device as well as a PA system in one device. One PA system can consist of up to 8 devices, which operate together via audio bus and can be controlled by one single device.

### FUNCTIONAL FEATURES

- » Full digital signal processing
- » 2 x 250 W output power per device at 100 V, electrically isolated with insulation monitoring
- » Extensible up to 16 output channels
- » Audio in- and outputs
- » Digital in- and outputs
- » Audio functions: delay, compressor, automatic level adjustment, optional: equalizer
- » Monitoring of announcements on 100 V out-puts via signal comparison

## FUNCTIONAL FEATURES

- » 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)
- » Control and monitoring of announcements via IP network or AF + contacts
- » Priority management configurable
- » Speech synthesis (TTS, multilingual) streaming and VoIP available
- » Web-based configuration and diagnosis
- » 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

## TECHNICAL DESCRIPTION

### GENERAL PROPERTIES

Range of application	IP PA System with integrated announcement device and 2x 250 W amplifiers as part of a PA system on railway stations
Power Supply	200 - 260 V AC / 100 - 130 V AC (selectable), 47 - 63 Hz and/or 46 - 53 V DC
Protection class	Protection class I according to DIN EN 61140
Power consumption	max. 560 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 Front side: USB diagnostic port (micro-USB A/B), network
Degree of protection	IP20
Temperature range	Operation: -5 °C ... +55 °C

## TECHNICAL DESCRIPTION

### GENERAL PROPERTIES

Cooling	<p>passive, fanless</p> <ul style="list-style-type: none"> <li>» voltage supply AC/DC</li> <li>» operation</li> </ul>
Front side display elements	<ul style="list-style-type: none"> <li>» voice alarm condition</li> <li>» failures (intern and extern malfunctions, power supply malfunction, amplifier/ loud speaker malfunctions)</li> </ul>
Front side operating elements	<p>inspection of display elements alarm deactivation fault acknowledgement customer-specific functions</p> <p>3 module slots</p>
Extension 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	<p>CE, RoHS, electrical safety and EMC EN 50121-4 (railway application) option: EN 54-16 (voice alarm system)</p>

### INTERFACES

AF inputs	<p>2x audio input (onboard):</p> <ul style="list-style-type: none"> <li>» electrically symmetrical</li> <li>» input sensitivity: 50 mV to 10 V, controlled electronically</li> <li>» Input impedance selectable 600 <math>\Omega</math> / 10 k<math>\Omega</math>,</li> <li>» 1x switchable 24 V phantom supply</li> <li>» plug-in terminal</li> </ul>
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## TECHNICAL DESCRIPTION

### INTERFACES

AF output	<p>2x audio output (onboard):</p> <ul style="list-style-type: none"> <li>» electrically symmetrical</li> <li>» output level: 0 dBu</li> </ul>
digital inputs	<p>2x digital inputs (onboard):</p> <ul style="list-style-type: none"> <li>» potential-free</li> <li>» 0 V – 60 V input voltage range, threshold value: 12 V</li> <li>» load &lt; 20 mA at 60 V</li> </ul>
digital outputs	<p>2x digital outputs (onboard):</p> <ul style="list-style-type: none"> <li>» potential-free</li> <li>» make / brake contacts configurable,</li> <li>» max. 60 V/1 A DC</li> </ul>
Fault message contact	see digital outputs

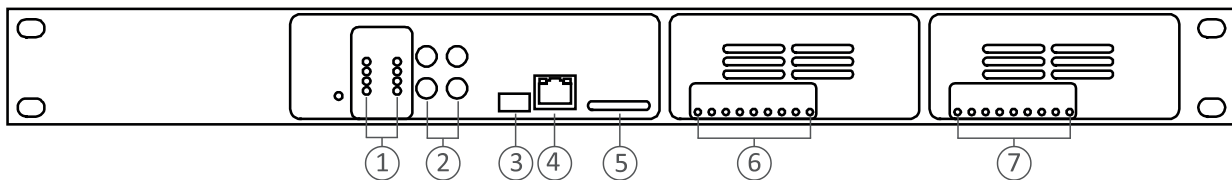
### ANNOUNCEMENT DEVICE

CPU	<p>Freescale i.MX6, 1 GHz, ARM Cortex-A9</p> <p>On customer request: Freescale i.MX6, 4x1 GHz, ARM Cortex-A9</p>
Memory	<p>512 MB RAM, 512 MB Flash, expandable with (micro) SD/SDHC/SDXC card on the front</p> <p>On customer request: 2 GB RAM + 2 GB Flash</p>
LAN	<p>1x RJ 45 (10/100/1000 MBit/s)</p> <p>On customer request: 2x RJ 45 (je 10/100/1000 MBit/s)</p>
Service interface	Micro-USB 2.0 A/B, front side
Network protocols	<p>Network: static/DHCP configuration, DNS, NTP</p> <p>Announcement assignments: JSON-RPC</p> <p>Live announcements: VoIP/SIP</p> <p>Monitoring: SNMP V2</p> <p>On customer request: other (customer-specific) network protocols</p>
Number of simultaneous announcements	max. 8

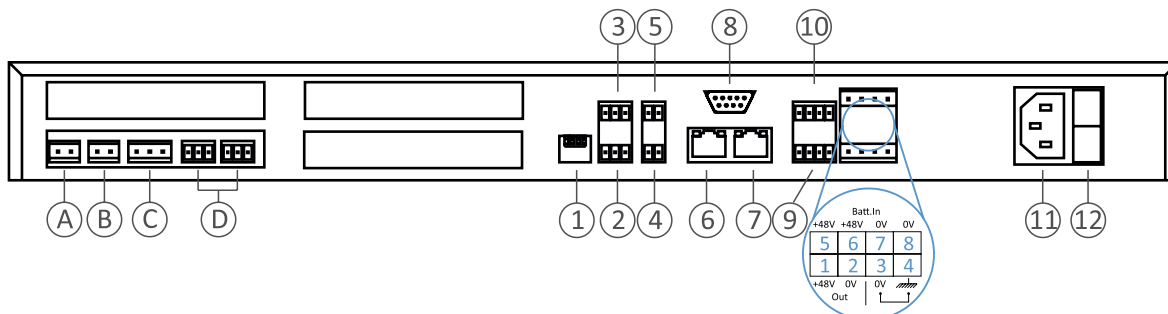
## TECHNICAL DESCRIPTION

### AMPLIFIER

Amount, class	2, Class D
Output power	250 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       | 4 Network connection             | 7 Status display for amplifier 2 |
| 2 Control panel                | 5 SD card slot                   |                                  |
| 3 microUSB, maintenance access | 6 Status display for amplifier 1 |                                  |



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|---|---------------------|---|
| A Slot 2 [X1] 100 V output amplifier 1      | 5 AF Out 2          | 1/2 DC voltage output +48 V DC, max. 200 mA   |
| B Slot 2 [X2] 100 V output amplifier 2      | 6 Audio bus In      | 3/4 Potential equalization, ground connection |
| C Slot 2 [X3] accident input                | 7 Audio bus Out     | 5-8 DC power supply +48 V DC                  |
| D Slot 2 [X4-X5] input autom. level control | 8 reserved          |   |
| 1 Characteristic AF In1, AF In2             | 9 Dig. In 1+2       |   |
| 2 AF In1                                    | 10 Dig. Out 1+2     |   |
| 3 AF In2                                    | 11 230 V AC voltage |   |
| 4 AF Out 1                                  | 12 Power switch     |   |

### ORDER NO.

042.41001-0016

CuraG2 PA System with 2x250W amplifiers, expandable (Type Cura32B)