CURAG2

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

CURAG2 BASIC DEVICE

The IP PA System with integrated announce-ment device and one 500 W amplifiers is a compact and scalable PA system of the product line Cura. It combines all features of an an-nouncement 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 control-led by one single device.

FUNCTIONAL FEATURES

» Full digital signal processing

» 1 x 500 W output power per device at 100 V, electri-cally isolated with insulation monitoring

» Extensible up to 8 output channels

» Audio in- and outputs

» Digital in- and outputs

» Audio functions: delay, compressor, automat-ic le-vel 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 1x 500 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	passive, fanless
Front side display elements	» voice supply AC/DC » operation » voice alarm condition » failures (intern and extern malfunctions, power supply malfunction, amplifier/ loud speaker malfunctions)
Front side operating elements	inspection of display elements alarm deactivation fault acknowledgement customer-specific functions
Extension slots (optionally extendable with)	3 module slots » audio-In module, 4 analog inputs » audio-Out module, 4 analog outputs » module with 8 digital inputs and 8 digital outputs
Compliance	CE, RoHS, electrical safety and EMC EN 50121-4 (railway application) option: EN 54-16 (voice alarm system)

INTERFACES

AF inputs	2x audio input (onboard): » electrically symmetrical » input sensitivity: 50 mV to 10 V, controlled electronically » Input impedance selectable 600 Ω / 10 kΩ, » 1x switchable 24 V phantom supply » plug-in terminal

TECHNICAL DESCRIPTION

INTERFACES

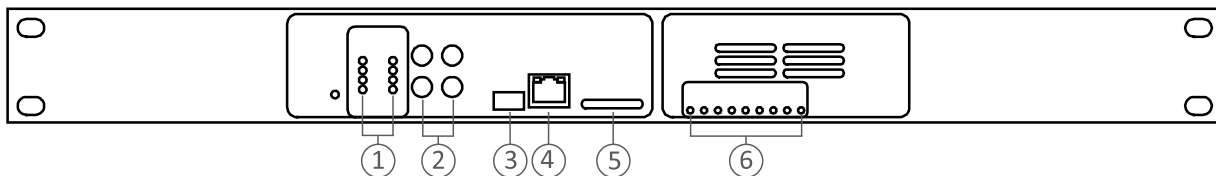|	
AF output	2x audio output (onboard): » electrically symmetrical » output level: 0 dBu
digital inputs	2x digital inputs (onboard): » potential-free » 0 V – 60 V input voltage range, threshold value: 12 V » load < 20 mA at 60 V
digital outputs	2x digital outputs (onboard): » potential-free » make / brake contacts configurable, » max. 60 V/1 A DC
Fault message contact	see digital outputs

ANNOUNCEMENT DEVICE

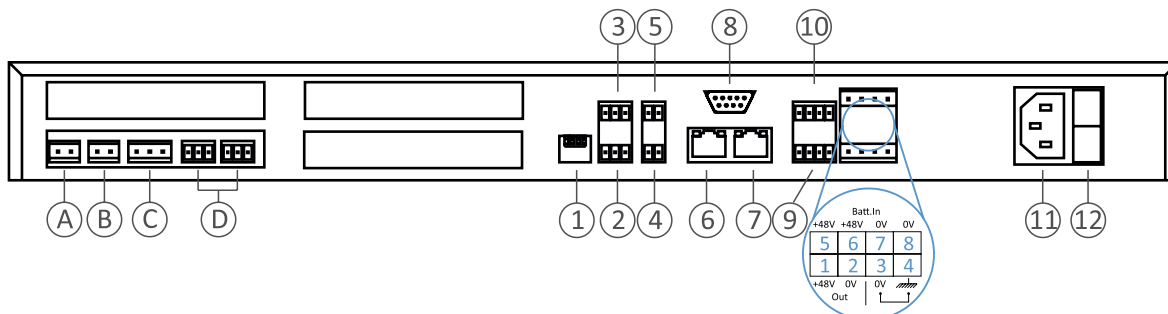|	
CPU	Freescale i.MX6, 1 GHz, ARM Cortex-A9 On customer request: Freescale i.MX6, 4x1 GHz, ARM Cortex-A9
Memory	512 MB RAM, 512 MB Flash, expandable with (micro) SD/SDHC/SDXC card on the front On customer request: 2 GB RAM + 2 GB Flash
LAN	1x RJ 45 (10/100/1000 MBit/s) On customer request: 2x RJ 45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

TECHNICAL DESCRIPTION

AMPLIFIER

Amount, class	2, Class D
Output power	500 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
2	Control panel	5	SD card slot
3	microUSB, maintenance access	6	Status display for amplifier 1

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.

042.41001-0017	CuraG2 PA System with 1x500W amplifiers, expandable (Type Cura33B)