

SOUND PANELS PRO SERIES/CS-1000
PROCESSORS A2001/D2001
AMPLIFIER D4100



▲ Rear view of Pro Series sound panel



▲ Processors A2001/D2001



▲ Amplifier D4100



Sound panel in an Optima ceiling. The speaker is invisible!

- Applications :
- Office
 - Healthcare
 - Retail
 - Hospitality
 - Education
 - Transportation

Sound panels:

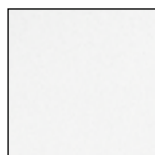
- ceiling panel speaker with superior combined performance for music, public address, voice alarm and active acoustics that enhance privacy, comfort and workspace effectiveness,
- available to coordinate with Armstrong's most popular ceiling patterns, for retrofit as well as new constructions.



▲ Orcal



▲ Ultima/Optima



▲ Dune



▲ Fine Fissured



▲ Tatra



▲ Cortega

SOUND PANELS PRO SERIES/CS-1000

Loudspeaker features

	PRO SERIES	CS-1000
GENERAL		
Invisible, flat panel loudspeaker	•	•
Exclusive system diffusing foreground music/ PA*/voice alarm through the same speaker	•	
Exclusive system diffusing background music/ PA*/voice alarm/active acoustics through the same speaker		•
Compatible with standard commercial sound systems	•	•
Pre-fitted 2 pin connectors provide for a simple system setup	•	
Fire dome option	•	•
TECHNICAL		
Compatible with 100 V line systems as well as low impedance systems (8 Ohms by-pass)	•	•
No phase distortion effects	•	•
Sound level decay, as a function of loudspeaker/ listener distance is lesser that with cone speakers	•	•
MUSIC / PA* / VOICE ALARM		
Improved intelligibility	•	•
Feedback effects are significantly reduced	•	•
Full range flat panel loudspeaker	•	•
Reduced installation costs: faster installation without cutting holes in the ceiling tiles	•	•
Improved coverage means fewer speakers required / m ²	•	•
ACTIVE ACOUSTICS (SOUND MASKING)		
Exclusive sound masking system with direct sound diffusion in the working environment		•
Achieve designed levels of confidentiality		•
Complete acoustical solution for more effective workspaces		•

Range

PRO SERIES	
Pro Series Ultima / Optima MicroLook 600 x 600 mm	BP6013M
Pro Series Ultima / Optima Tegular 600 x 600 mm	BP6014M
Pro Series Dune Plus MicroLook 600 x 600 mm	BP6015M
Pro Series Dune Plus Tegular 600 x 600 mm	BP6016M
CS-1000	
CS-1000 Ultima / Optima MicroLook 600 x 600 mm	BP6017M
CS-1000 Ultima / Optima Tegular 600 x 600 mm	BP6018M
CS-1000 Dune Plus MicroLook 600 x 600 mm	BP6019M
CS-1000 Dune Plus Tegular 600 x 600 mm	BP6020M
CS-1000 Fine Fissured MicroLook 600 x 600 mm	BP6021M
CS-1000 Fine Fissured Tegular 600 x 600 mm	BP6022M
CS-1000 Cortega MicroLook 600 x 600 mm	BP6023M
CS-1000 Cortega Tegular 600 x 600 mm	BP6024M
CS-1000 Tatra MicroLook 600 x 600 mm	BP6025M
CS-1000 Tatra Tegular 600 x 600 mm	BP6026M

Description

PRO SERIES

Material: steel frame, special honeycomb membrane, glass painted scrim facing
 Dimensions: 600 x 600 x 110 mm
 Panel weight: 4.5 Kg per panel
 Shipping weight: 11 Kg/carton (1 carton = 2 panels)
 Warranty: three-year limited warranty on materials and workmanship from date of manufacture*

CS-1000

Material: steel frame, specially designed tubular membrane, glass painted scrim facing
 Dimensions: 600 x 600 x 64 mm
 Panel weight: 3.10 Kg per panel
 Shipping weight: 8.0 Kg/carton (1 carton = 2 panels)
 Warranty: three-year limited warranty on materials and workmanship from date of manufacture*

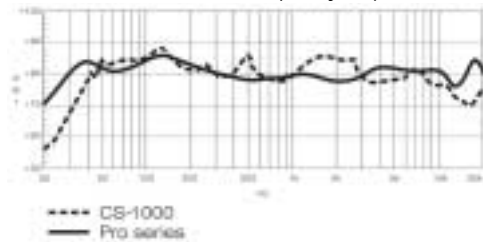
* Sales of the product and liability are in accordance with the terms and conditions of sale

Speaker data

PRO SERIES	CS-1000
Sensitivity: 87 dB @ 1 W, 1 meter	Sensitivity: 82 dB @ 1 W, 1 meter
Taps: 100 V: 7.5, 15, 30 W 8 Ohms By-pass	Taps: 100 V: 1/4, 1/2, 1, 2, 4, 8 W 8 Ohms By-pass
Transducers: 2	Transducer: 1
Power Capacity: 30 W	Power Capacity: 8 W

Frequency response

CS-1000 & Pro series frequency response



How to specify?

PRO SERIES / CS-1000

The loudspeaker shall be a full range device producing frequencies from 70 Hz to 18 KHz (100 Hz to 18 KHz for the CS-1000). Total radiating surface shall be 0,3 m². Frequency dispersion shall be 180° up to 16 Kz. The loudspeaker shall have a sensitivity of 87 dB 1 W/1 M (82 dB for the CS-1000) with a power rating of 30 W RMS (8 W RMS for the CS-1000). The loudspeaker shall have an exterior frame constructed of steel, measuring 600 x 600 mm. The depth of the loudspeaker shall be no more than 110 mm (64 mm for the CS-1000). The unit shall weight no more than 4,5 Kg (3,1 Kg for the CS-1000). The loudspeaker shall be i-ceilings Pro series (CS-1000) sound panel.

PROCESSORS A2001/D2001

A2001/D2001, analogue and digital output processors:

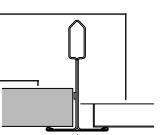
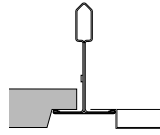
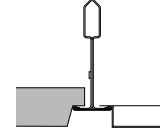
- DSP-based, software-controlled processors, manage and enhance a unique combination of music, public address and active acoustics
- ability to interconnect with other processors to accommodate current and future needs
- compatible with standard commercial sound systems
- fast, easy system setup with remote monitoring via the A2D2 graphic interface

Product features	Music features									
<ul style="list-style-type: none"> - Eight audio program sources; six external inputs: public address (Telco), microphone, analog and digital music, and two internal uncorrelated noise sources - Eight independent outputs – each with digital 28-band 1/3 octave equalization - RS232 port for system setup - RS232 port for remote control interfacing with various commercially available control systems - Balanced connections via industry-standard two-part connectors - Tamper proof operation - Non-volatile memory for all system settings - Remote level control by DTMF (touch tone) telephone - Gating and soft-knee limiting on Telco and microphone inputs - Universal power 90-240 VAC, 50-60 Hz autoswitching - Two U rack-mountable - CE marking 	<ul style="list-style-type: none"> - Two analog IHF music inputs - Two analog line level / one stereo digital coaxial S/PDIF inputs - Baxandall tone controls on all music inputs 									
	Public address features									
<p>Specifications</p> <p>Frequency Response: Microphone input: 80/120 Hz to 18 KHz Music input: 50 Hz to 18 KHz Line input: 50 Hz to 18 KHz Telco input: 250 Hz to 4 KHz</p> <p>Distorsion: THD better than 0.02 % @ 1 KHz</p> <p>Dynamic Range: 100 dB</p> <p>Input Impedances: Microphone: > 2k Ohms Music/Line: > 10k Ohms Telco: 600 Ohms nominal</p> <p>Levels: Nominal operating level: 0 dBv Maximum input levels: Microphone -10 dBv Music +6 dBv Line +20 dBv</p> <p>Analog output (A2001): Nominal output level: 0 dBv [Balanced] less than 100 Ohms Maximum output level: +20 dBv</p> <p>Digital output (D2001): AES-EBU Standard on proprietary cable interface</p> <p>Noise Sources: Peak to average ratio: 8 dB A/D and D/A Converters: 24-bit Sigma Delta Crosstalk: Better than -80 dB @ 1 KHz Power: 35 VA</p>	<ul style="list-style-type: none"> - Five priority levels for public address - Two band shelving and two band parametric equalization for microphone input - Two band shelving and two band parametric equalization for Telco input - Selectable music and line ducking / muting by public address - Compatible with most PBX products, and easily ties to KTS and Centrex systems - Highly flexible public address interface with 99 DTMF codes that can be customized many ways - Multiple units linkable - OPX port for off-premises bi-directional linking of systems - Multiple confirmation tones - "Mute all" contact closure for fire and like safety control 									
	Active acoustics features									
	<ul style="list-style-type: none"> - Customized noise spectrum for optimised performance - Dual uncorrelated digital noise sources to provide uniform spatial distribution: <ul style="list-style-type: none"> - Up to 4 zones of dual channel active acoustics - Up to 8 zones of single channel active acoustics 									
	Description									
	<p>Dimensions : 8.9 x 48.3 x 22 cm (H x W x D) Weight: 3.2 Kg Shipping weight: 4.5 Kg Warranty: three year limited warranty on materials and workmanship from date of manufacture* * Sales of the product and liability are in accordance with the terms and conditions of sale</p>									
	References									
	<table border="1"> <thead> <tr> <th><u>Model</u></th> <th><u>Output</u></th> <th><u>Item number</u></th> </tr> </thead> <tbody> <tr> <td>D2001</td> <td>Digital</td> <td>6750</td> </tr> <tr> <td>A2001</td> <td>Analogue</td> <td>6751</td> </tr> </tbody> </table>	<u>Model</u>	<u>Output</u>	<u>Item number</u>	D2001	Digital	6750	A2001	Analogue	6751
<u>Model</u>	<u>Output</u>	<u>Item number</u>								
D2001	Digital	6750								
A2001	Analogue	6751								

AMPLIFIER D4100

Specifications	Amplifier features						
<p>Power:</p> <p>100 W per channel into 50 Ohms (70.7 V RMS) 50 Hz-15 KHz @ .1% THD all channels driven</p> <p>Frequency response: 20 Hz - 20 KHz (-3 dB)</p> <p>Distortion: 0.01% THD + N</p> <p>Input: AES/EBU X 2</p> <p>Digital communications to processor: Serial Data</p> <p>D/A converter: 24-bit Sigma Delta</p> <p>Power consumption: 50 VA Idle; 1100 VA peak</p>	<ul style="list-style-type: none"> - Two digital AES inputs (four independent channels) - Four 100 W, 70 V amplifier channels - Direct coupled high-voltage outputs - Control and monitoring of Amplifier by D2001 Processor - Up to two D4100 Amplifiers are controllable by one D2001 Processor - Industry-standard 2-part output connectors - Amplifier protected against overload, shorted output, internal failure - Status and problems reported back to D2001 Processor - Switching power supply for high efficiency - Universal power 100 V – 240 V autoswitching - Three U rack-mountable - CE marking 						
Description	References						
<p>Dimensions: 13.3 x 48.3 x 28.9 cm (H x W x D)</p> <p>Weight: 11,8 Kg</p> <p>Shipping weight: 14,0 Kg</p> <p>Warranty: three-year limited warranty on materials and workmanship from date of manufacture*</p> <p>* Sales of the product and liability are in accordance with the terms and conditions of sale</p>	<table border="1"> <thead> <tr> <th>Model</th> <th>Output</th> <th>Item number</th> </tr> </thead> <tbody> <tr> <td>D4100</td> <td>Digital</td> <td>6752</td> </tr> </tbody> </table>	Model	Output	Item number	D4100	Digital	6752
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D4100	Digital	6752					

HOW TO SELECT YOUR SOUND PANEL ?

<p>Sound panel edge detail</p> <p>Ceiling edge detail</p> <p>Grid</p>  <p>Board visual where ceiling tiles and grids are at the same level</p>	 <p>Tegular visual for a ceiling with depth on a wide grid</p>	 <p>MicroLook visual for a ceiling with depth on a narrow grid</p>	
Sound panel edge detail	MicroLook	Tegular	MicroLook
Grid	24 mm	24 mm	15 mm

Please refer to the sound panel range for item numbers

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