



technical specifications Sentinel10

general

- 10 kW high-end Hi-Fi amplifier stages
- 4-in/4-out matrix routing
- 192 kHz capable AES3 inputs
- Large 480 x 272 pixel colour touch-screen
- Presets for all Alcons system configurations
- SIS™ dynamic cable compensation



description

The proprietary designed and developed Sentinel Amplified Loudspeaker Controllers are the “engine” behind every Alcons system and are designed to get the absolute maximum performance out of the pro-ribbon systems.

The ALC Sentinel features a powerful 4-channel DSP-based controller with ClassD amplifier stages.

The 4 individually addressable inputs accept analogue or up to 192 kHz digital AES3 signals, that are up/down sampled to 96 kHz. by the custom high-end sample rate converters.

The future-upgradable powerful DSP engine enables minimal latency during processing of even the most complex (IIR, FIR) algorithms. Features include 6-band (shelf/pass/parametric) equalising per channel, delay, factory presets for all systems and system configurations, user-presets, event-logging and system feedback.

A Linux-based micro-computer “oversees” and controls all processes. The full-colour TFT touch screen and the multi-colour LED illuminated encoder in combination with tab-based menu structure offers intuitive control over the amplifier and processor sections, while reducing the number of “wearable” components.

The Signal Integrity Sensing™ circuit dynamically compensates the effects of long speaker cables; This results in a tight sub and bass response regardless of cable length or impedance (system damping factor of 10.000) and without the need for manually entering cable parameters.

SIS™ also caters for further reduced distortion (optimized cross-over drive).

The 4 patent-pending Class-D amplifier stages are 93% efficient and offer one of the lowest THD in the industry. Together with the 2 (redundant) switch-

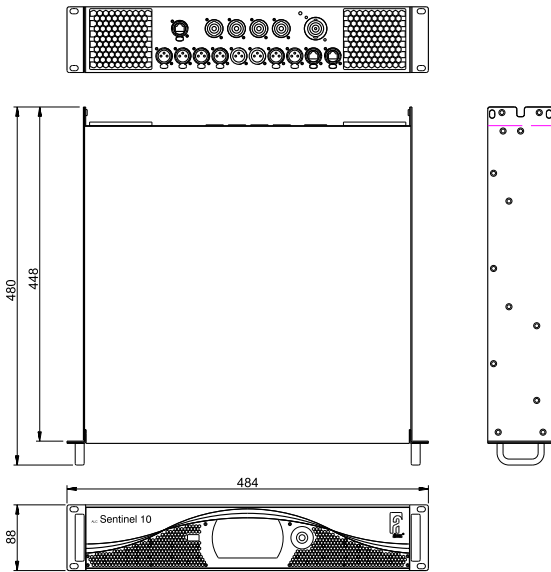
mode power supplies, the Sentinel10 delivers a total of 10.000 W. The modular design makes for easy “in-the-field” servicing and future upgrades.

The Power Detection Circuit automatically selects the correct operating AC current 115 V / 230 V and protects against overload above 400 V.

Individual Sentinels can be simply controlled through a VNC app. on any mobile device; More complex Sentinel clusters can be controlled via the ALControl™ Ethernet-based remote-control connection. Internal slots are available for optional Audio-over-network plug-in modules.

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dimensional drawing



technical specifications

Nr of channels	4 input + 4 output
Input sensitivity	2.12 Vrms (+8.7 dBu) for full RMS power in 4 ohms
Max. input level	+24 dBu
Gain	32 dB (40x)
THD+N, IMD	< 0.005% @ 20 Hz – 20 kHz 1000 W into 4 ohms
Damping factor	> 10.000 @ 1 kHz., 8 ohms
Output power (burst RMS)	4x 1450 W @ 8 ohms 4x 2500 W @ 4 ohms 4x 2450 W @ 2 ohms
AES3 supported formats	44.1 kHz., 48 kHz., 96 kHz, 192 kHz.
User interface	4.3" TFT LCD (480 x 272 pixel) touch screen "Click & turn" rotary encoder, RGB-LED illuminated
Connectors rear	4x XLR (analog input) + 2x AES/EBU (digital input) 4x NL4 (speakers out) + 2x AES/EBU (digital link) 1x 32A powerCON® (power) 1x RJ45 etherCON® (remote control) 2x RJ45 etherCON® (networked audio)
front	1x USB (service in/out)
Cooling	2x fan, rear-to-front flow, regulated speed
Mains supply voltage	Universal AC input, up to 400 V protected
Weight	11,6 kg 25.5 lb
Housing	19 inch rack mount, 2 RU, 448 mm / 17.6 in. deep behind mounting surface (without connectors)
Warranty	3 years limited

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