

# 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-

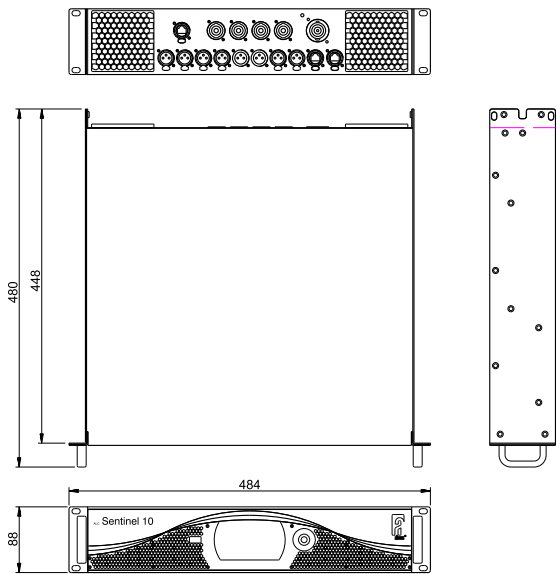
mode power supplies, the Sentinel10 delivers a total of 10.000 W. The modular design makes for easy “in-the-field” servicing and future upgrades.

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	4x 1450 W @ 8 ohms
(burst RMS)	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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