

## AMPIID 'C' SIL

### Automatic Ambient noise Survey (ANS)

To assure audible and intelligible public address broadcasts it is essential to maintain a differential between ambient noise and audio signal distribution in all potential listening areas if the public address system is to be effective i.e. alarms are to be heard and speech is to be understood. Where ambient noise fluctuates greatly between high and low levels due to, for example, a particular process or activity then to meet the requirement the broadcast system would need to be arranged to output at sufficiently elevated level to maintain differential in times of highest background noise. Unfortunately this would mean that during periods of reduced noise public address output levels might be annoyingly excessive. The public address system can incorporate a dynamic control sub system that automatically self adjusts loudspeaker output level to suit prevailing ambient noise. When background noise is low then broadcasts are issued at a comfortable level, in the event that noise increases, the public address system senses the change and output level is adjusted accordingly to ensure that the signal to noise differential is maintained.

The auto sensing system comprises of a transducer located in the broadcast area, and a plug in SIL card module that fits into the AMPIID power amplifier 'C' slot which controls the gain of the amplifier host.

The transducer provides a voltage output that is proportional to the ambient noise sound pressure level, this is injected into the 'C' SIL, which processes the signal and adjusts the AMPIID loudspeaker drive output accordingly.

The ambient noise is measured on a continuous basis and immediately prior to a broadcast being launched the latest amplifier parameters are fixed for the duration of the broadcast according to rules predetermined during the commissioning of the 'C' SIL and associated transducer.

The 'C' SIL accommodates a wide dynamic range, up to 48dB, with basic reference level preset by screwdriver adjustment during commissioning to meet real time site conditions.

The transducer is connected to the host via a single twisted pair of conductors and since the 'C' SIL is essentially a voltage-controlled device standard telephony cable conductor sizes can be employed. The transducer is available in both safe and hazardous area explosion-proof execution enabling service in not only aggressive climatic situations but also potentially explosive areas.

'C' SIL can be readily retrofitted to any AMPIID amplifier host employing ACE100 management node.

#### KEY FEATURES

- ✓ Simple cable architecture - low cost installation and maintenance
- ✓ Up to 48dB dynamic range - greater performance and hence intelligibility
- ✓ Simple 'plug and play' implementation - rapid commissioning
- ✓ Choice of safe / hazardous area transducers - enables use in a wide range of applications



