

ANS04-ES

IP65 Ambient Noise Sensor (Extended Temperature Range)



The ANS04-ES is an IP65 rated sample and hold Ambient Noise Sensor which is designed to operate under extreme temperatures, from -40°C to +50°C. The ANS04-ES will work with the whole range of ASL Public Address and Voice Alarm systems and with ASL's VIPA IP-based PA systems.

The purpose of an Ambient Noise Sensor (ANS) system is to adjust the level of public address announcements based on a measure of the ambient noise in the PA zone. This will maintain a set volume of public address audio above the ambient noise, in order to guarantee that the announcement is intelligible, yet at a comfortable level.

Each ASL Public Address or Voice Alarm system is able to support the connection of multiple ANS04-ES units. The ANS sensor detects ambient noise using its built-in microphone. The detected signal is weighted with a speech-band response for the best system performance, and is then translated to a value of measured ambient noise in dBA. This value is used to proportionally adjust the Public Address or Voice Alarm system output gain for the configured output channel or channels.

The system is set up for the maximum broadcast volume without the ANS sensor, and the ANS system then reduces the gain from this level when the zone is quiet.

Two ambient noise measurement ranges are selectable, depending on the required system volume and expected ambient noise level:

- High Range from 65 dBA to 95 dBA, and
- Low Range from 55 dBA to 85 dBA

The ANS range is selectable via an internal switch, and is identified by external LEDs. These LEDs also provide a useful visual indication of the unit’s operation, as their brightness varies with the ambient noise level. There are also two internal status LEDs for use in installation and fault finding. A green LED indicates the presence of power when lit, and an amber LED illuminates in the event of a microphone capsule open or short circuit fault.

The ANS04-ES is housed in an IP65 rated die-cast aluminium enclosure, with the electronics and microphone being mounted on the front plate. For use in external environments which are subject to heavy snowfall the ANS04-ES is also available together with a snow hood and adjustable mounting bracket as the ANS04E.

The connection to each ANS04-ES is a simple 3-wire link from the ANS04-ES to a BMB01 Remote I/O Unit, or direct to a VIPEDIA-12 DSP router.

For further details, and for information on other products, please visit www.asl-control.co.uk.

SPECIFICATION

General	
Supply Voltage Range	21 – 40 V DC
Current Consumption	35 mA @ 24 V DC supply
Output Current	4 – 20 mA nominal
Ambient Noise Measurement Range ¹	65 – 95dBA (High Range) 55 – 85 dBA (Low Range) ²
Number of ANS Sensors	
Routers.....	max. 12 per PA zone (Sensors for any one zone must all be connected to the same BMB01 Remote I/O Unit)
VIPA Systems.....	any number of ANS sensors can be configured on a unit
Enclosure	die-cast aluminium
Finish	Grey NCS S1002-B 20% GLOSS LSOH Low Smoke and Fume, Zero Halogen

Environmental	
Temperature (storage and operating)	–40 °C to +50 °C ±3 dB accuracy
Humidity Range	0% to 93% Non-condensing
Ingress Protection.....	IP65

Safety and EMC	
EMC.....	EN55103-1/E1, EN55103-2/E5, EN50121-4, ENV50204
Safety.....	EN60065

Dimensions and Weight	
Dimensions (H x W x D).....	160 mm x 100 mm x 81 mm
Gland/ Conduit Hole	25 mm
Weight	980 g

¹ Ambient Noise Measurement Range is selectable via internal switch. Note that the ANS range is fixed in legacy ANS03 units:

- ANS03: 65 dBA to 95 dBA
- ANS03L: 55 dBA to 85 dBA

² Low range ANS is not supported by all VAR Router software versions. Please refer to Application Solutions Limited for further details.



This equipment is designed and manufactured to conform to the following EC standards:

EMC: EN55103-1/E1, EN55103-2/E5, EN50121-4, ENV50204
Safety: EN60065

This product is RoHS compliant.

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