

## EMS10 & EMS20

### Zoneable Emergency Microphones

The EMS10 and EMS20 Emergency Microphone Stations are EN54 compatible emergency microphones which provide live and pre-recorded message broadcast into user selected zones. The EMS10 provides 10 zone selection capability whilst the EMS20 provides 20 zones. Both microphones also provide all EN54 Mandatory Indicators and Controls.

The units are housed in a lockable wall-mounting box and feature a 2 line x 40 character backlit LCD display together with indicators for 'Power', 'Voice Alarm', 'System Fault', 'Fault' and 'Speak Now'. The LCD display provides remote access to the list of active faults in the PA/VA system, while the EN54 mandated control keys enable navigation through the fault list, and also provide remote fault acceptance and clearance.

If more than 20 zone buttons are required then the EMS20 can be expanded by the addition of an EMX Emergency Microphone Station Expansion Unit, which can provide up to another 60 zones.

The EMS10 and EMS20 have numerous system interfaces, and can be connected directly to two VAR routers, for instance where one router provides an 'A' loudspeaker circuit system, and a second router provides an independent 'B' loudspeaker circuit system. There is also an IP interface for VoIP connections into ASL IP based PA/VA systems, and direct and IP connections can be used as dual redundant backups for each other. The EMS10 and EMS20 will also operate in an All-Call hardware bypass safety mode even in the event of processor failure within the host Voice Alarm Router<sup>1</sup>. This hardware bypass safety function also operates across whole facilities when the microphone is used in conjunction with ASL's Intellevac safety audio network.

With direct connections the microphone audio output is provided as a balanced 0 dBu (nominal) analogue signal, on which the microphones feature a built-in signal limiter to accommodate varying operator technique. The microphone's processor is also responsible for generating an outgoing 20 Hz surveillance tone, which is used to monitor the audio connection to the Router, while microphone capsule monitoring is performed by injection and monitoring of a signal such that either open or short circuit of the capsule or associated wiring will indicate a fault. All interconnect cabling is continuously monitored for open and short circuits.

Top, bottom and rear cable entry points are provided by means of 'knock-outs' in the enclosure, while the field connections are provided on the inside rear panel of the back box by means of DIN rail mounted terminals.

The EMS10 and EMS20 are compatible with the whole range of ASL Voice Alarm and Public Address systems<sup>2</sup>, and are designed to comply with EN54-16, ISO 7240-16 and BS5839-8.

For further details, and for information on other products, please visit [www.asl-control.co.uk](http://www.asl-control.co.uk).



<sup>1</sup> Hardware bypass is provided on ASL VAR Router inputs 1 and 2. If connected to any other VAR input ports then the EMS10 and EMS20 will operate normally, but without this function.

<sup>2</sup> The EMS10 and EMS20 EN54 fault display functionality is only supported by the following VAR Router software versions:

- VAR4/12/20 V6.1 or later
- VAR8/DAU V3.1 or later
- VAR8-ACU V3.1 or later

#### Product Overview

# SPECIFICATION

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## General

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|                               |   |
|-------------------------------|---|
| Supply Voltage Range.....     | 18 – 40 V DC  |
| Current Consumption.....      | 98 mA @ 24 V DC supply (Min., all LEDs off, LCD display backlight off, sounder off)<br>TBD mA @ 24 V DC supply (Max., all LEDs on, LCD display backlight on and sounder on) |
| Fire Microphone Facility..... | EN54-16, ISO 7240-16 and BS5839-8 compliant   |
| Microphone.....               | Fist with built-in PTT button   |
| LEDs.....                     | Speak Now / Power / Voice Alarm / Fault / System fault  |
| LCD Display .....             | 2 line x 40 character backlit (for fault indication)  |
| Keys .....                    | Fault Accept / Fault Clear / Up & Down (for scrolling the fault list)   |
| Format / Colour .....         | Wall mounting metal box / Red RAL3020   |

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## Connections

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### Direct Router Connections

|                                   |   |
|-----------------------------------|---|
| Audio Output.....                 | 0 dBu balanced (nominal) / 66 $\Omega$    |
| Surveillance Tone.....            | 20 Hz                                     |
| Microphone Control Data .....     | EIA RS485 / 38400 baud                    |
| Hardware Bypass Connections ..... | Push To Talk (PTT) switch, Speak Now LEDs |
| IP Network Connection.....        | 100baseT Ethernet                         |

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## Dimensions and Weight

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|                              |                         |
|------------------------------|-------------------------|
| Dimensions (H x W x D) ..... | 353 mm x 344 mm x 95 mm |
| Knock-outs .....             | 20 mm $\varnothing$     |
| Mounting Holes.....          | 9 mm $\varnothing$      |
| Weight.....                  | 5 kg                    |

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## Environmental

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|  |   |
|--|---|
| Temperature (storage and operating)..... | -20 °C to +55 °C (storage) / -10 °C to +55 °C (operation) |
| Humidity Range .....                     | 0% to 93% Non-condensing                                  |
| Ingress Protection.....                  | IP30  |

**NOTE : PROVISIONAL INFORMATION ONLY**



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

### Manufacturer

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