EF-EMS Microphone range

EF-EMS01 Emergency Microphone Station

EF-EMS10, EF-EMS20 & EF-EMS50 Emergency Microphone Station

The EF-EMS01, EF-EMS10, EF-EMS20 and EF-EMS50 Emergency Microphone Stations are EN54 compatible emergency microphones which provide live and pre-recorded message broadcast.

The EF-EMS01 is an all call version, with no additional buttons.

The EF-EMS10 provides 10 button selection capability whilst the EF-EMS20 provides 20 buttons.

The EF-EMS50 is formed from an EF-EMS20 together with an additional 30 button EF-EMX30 expansion unit.

All microphones also provide EN54 compliant emergency functions and all EN54 mandatory indicators and controls.

The microphones are housed in a lockable wall-mounting box and feature a graphic 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 system, while the EN54 mandated control keys enable navigation through the fault list, and also provide remote fault acceptance and clearance.

Microphones can be connected directly to either one or two EFDAU2000 Wall Mounted Voice Alarm panels, enabling multiple options for system redundancy.

If configured, the microphone will operate in an All-Call hardware bypass fall-back mode in the event of processor failure within the host EFDAU2000.

There is also a non-EN54 RJ45 Ethernet IP interface with Power over Ethernet capability for VoIP connections to IP based PA/VA systems. All interconnect cabling and the microphone capsule is continuously monitored for open and short circuits.

The optional EF-EMX30 expansion module allows up to 30 additional buttons to be connected to the main EF-EMS unit. The EF-EMS base unit with EF-EMX30 can be ordered as the EF-EMS50.

Features and benefits

- Wall mount fist microphone.
- 0, 10, 20 or 50 selection buttons.
- EN54 Compliant indicators and controls.
- Dual redundant output for A & B routers.
- Additional voice over IP interface, with POE RJ45.
- Fully monitored.

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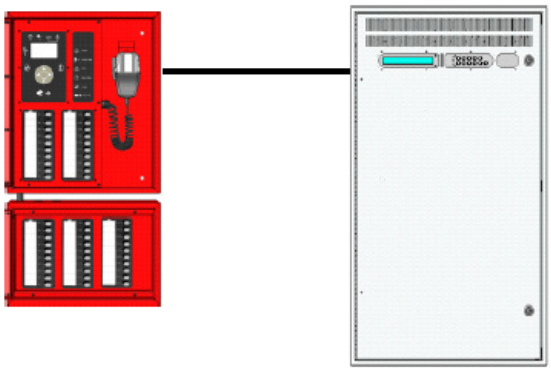
Top, bottom and rear cable entry points are provided by means of 'knock-outs' in the enclosure, while the field connections are provided by means of a set of terminals on the inside rear panel of the back box.

The EF-EMS10, EF-EMS20 and EF-EMS50 are compatible with the EFDAU2000 Wall Mounted Voice Alarm System, and are designed to comply with EN54-16, ISO7240-16 and BS5839-8.

Specification

Analogue - standard connection to a single EFDAU2000

The standard connection method uses a single microphone port connected directly to a single EFDAU2000 panel.



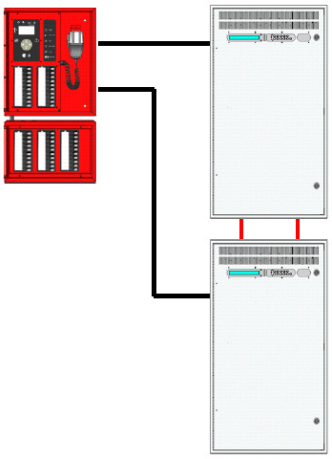
Analogue - dual redundant connection to a single EFDAU2000

If the microphone is used with a single EFDAU2000 panel, then two microphone ports can be used to make separate connections. This provides dual redundant cabling between the EF-EMS microphone and the EFDAU2000 panel.

Analogue - redundant connection to multiple EFDAU2000

If the EF-EMS is used with a system which has two or more EFDAU2000 panels, then both EF-EMS microphone ports can be used, one connected to each EFDAU2000.

This option is supported across DBB, Base-IP, Secure Loop and AB architectures. Hardware bypass is only operational across DBB or AB architectures in multi-panel systems.

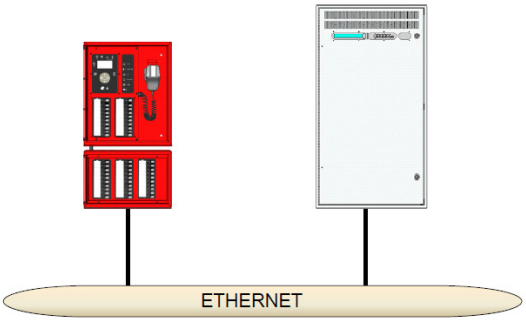


IP Interfaces

EFDAU2000 IP Interface

The standard EFDAU2000 microphone interface can also be configured to operate over Ethernet. Functionality is identical to an analogue standard EF-EMS connection.

IP microphone pre-announcement chimes are configured to be played locally from the EF-EMS microphone.



IP Fallback mode

The analogue and IP interfaces described above, rely on the EFDAU2000 as the host device for full operation.

However, in the event the host were to become unavailable, it is possible to configure the EF-EMS microphone to continue in a 'Fall-back Mode', whereby it is still possible to perform the core function of an "All Call" broadcast, addressing multiple devices directly over an Ethernet network without the need for the host device.

In IP Fall-back mode, EFDAU2000s can be addressed individually or in groups as necessary.

Eaton product datasheet
Voice alarm system - EF-EMS Microphones

EFDAU2000
Wall-Mount Voice Alarm System

Specification

The EF-EMS microphone normally operates as a slave device hosted by EFDAU2000 . It can be configured to act in IP Fall-back mode if communications with the EFDAU2000 host is lost.
The feature set available in each of these applications is different. Please see below:

EFDAU2000 features

- Live Paging.
- Store and Forward Paging.
- Volume Control.
- Fixed Route Button.
- Zone Selectable Route Button.
- EN54 Mandatory Indications.
- EN54 Fault Reporting.
- Fault Clear.

Fall-back IP features

- Live Paging.
- Store and Forward Paging.

Power supply	
Input Voltage	Dual 18 to 48 V DC
Current Consumption @ 24V (nom.- sounder & LEDs off)	
EF-EMS01	90mA
EF-EMS10	95mA
EF-EMS20	100mA
EF-EMS50	115mA
Current Consumption @ 24V (max. - sounder & LEDs on)	
EF-EMS01	165mA
EF-EMS10	220mA
EF-EMS20	275mA
EF-EMS50	440mA
Analogue PAVA system connection	
Audio Output	Dual Analogue / 0dBu nominal / 220R
Hardware Bypass Interface	2 x PTT & 2 x Speak Now
Listen In Input	Single Analogue
IP PAVA system connection	
Connection	1 x 100BASE- T Ethernet (RJ45)
Audio Format	PMC Compliant VoIP
Mechanical	
Dimensions (H x W x D mm)	
EF-EMS01/10/20	402.4 x 344 x 95
EF-EMS50	660.8 x 344 x 95
Weight (EF-EMS01)	5.8kg
Weight (EF-EMS10)	6.0kg
Weight (EF-EMS20)	6.2kg
Weight (EF-EMS50)	9.1kg
Environmental	
Temperature (Storage)	-20 °C to +55 °C
Temperature (Operation)	-10 °C to +55 °C
Humidity Range	0% to 95% non-condensing
IP Rating	IP30

Eaton order codes

EF-EMS01	Emergency Microphone Station - 1 Button – IP & Analogue
EF-EMS10	Emergency Microphone Station - 10 Button – IP & Analogue
EF-EMS20	Emergency Microphone Station - 20 Button – IP & Analogue
EF-EMX30	Emergency Microphone Station - 30 Button – Expansion module for EF-EMS20

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