

Public Address Voice Alarm Range



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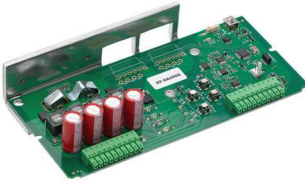
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Compact DAU500 networked and decentralised voice alarm and public address paging system

The networked voice alarm and public address system Compact DAU500 is based on the concept of a standalone or decentralised network topology with multi-channel amplifier and built-in local power backup.

This state-of-the-art, digital technology offers an audio distribution system which is a compact, all-in-one, wall-mounted solution, where a flexible and easy to operate voice system installation.

Compact DAU500 can be configured as a standalone or networked voice alarm system comprising of 6 loudspeaker circuits and consists of a central control unit with embedded amplifier cards: 3 dual-channel amplifier cards, EF-DA200T, for 6 zones, plus one dual-channel amplifier, EF-DA200S, for active back-up with integrated emergency power manager in accordance with EN54-4.

It has a front control panel with 6 x configurable zone buttons and indicators such as, zone evacuation / failure warning / busy LED displays at access level 2 and integrated fireman's microphone with priority and electrical monitoring in a protective cover.

The Compact DAU500 is an optimised voice alarm and/or public address system designed for small and medium-sized applications. A standalone central control unit, together with three EF-DA200T two-channel amplifiers, forms a complete voice alarm system for venues such as schools, smaller hotels, etc. The overall system achieves the performance requirements for voice alarm systems in accordance with EN54-16 and electro-acoustic emergency warning systems EN 50849.

The Compact DAU500 central control unit has built-in EN54-4 certified power supply equipment, complete with a 4-ampere intelligent charger and battery compartment. All power amplifiers are constantly monitored. In the event of a defective power amplifier, the backup amplifier will replace it dynamically. Switching takes place automatically and without interruption from the central control unit.

The loudspeaker lines are constantly monitored for short circuits, interruptions, and impedance deviations with support of an end-of-line module. Faulty loudspeaker lines are isolated without affecting other zones. Each DAU500 panel supports memory storage for 22 pre-recorded messages of max. 5 minutes each; they can be configured for alarm messages and signals (evacuation alarm, warning siren) and attention signals (siren, chime).

The volume of each source and each amplifier channel can be regulated using the 5-point parametric audio filter which is available for each input and output. Faults are recognized, displayed, and logged in compliance with standards within a few seconds.

The Compact DAU500 central unit features 2 analogue balanced inputs for background music or an external analogue priority signal that can trigger an evacuation status.

As standard, the DAU500 panel is equipped with 6 independent amplifier channels which can operate a total of 6 loudspeaker circuits, each loaded with a maximum of 100W. Amplifier channels can be bridged in pairs, creating more powerful loudspeaker lines, each capable of driving a 200W loudspeaker load. It is also possible to mix branch and loop line technology on the same central control unit.



The number of loudspeaker circuits can be further expanded using the EF-HEXAPOD6 multiplexer units, for phased evacuation applications, the maximum number of loudspeaker circuits possible from a single DAU500 panel is 18 lines, this limit can be extended further to 36 loudspeaker lines in non-phased evacuation applications.

The Compact DAU500 directs two live stream audio channels and a serial data channel (RS422) into remote zones via a redundant global network loop and controls a 6-channel message player that sends synchronized audio signals to the local zones. In this way, each Compact DAU500 can play multiple audio messages simultaneously in the local zones.

All announcement memory modules are synchronized between several Compact DAU500 panels supporting a wide area of warning message playback. Compact DAU500's central unit features 16 programmable discreet triggering inputs onboard, of which 8 are monitored. 3 dual-state potential-free system status output relays together with 8 programmable open collector GPO outputs, take care of feedback signals to external systems and control over auxiliary devices.

With up to 254 decentralized all-in-one Compact DAU500 units each with a control and display panel serving six zones or using an additional EF-FMTC touchscreen microphone accessing up to 254 zones, this creates a single voice alarm system which can reach over 1500 loudspeaker lines in total, where architecture and priorities can be individually programmed in each of 254 evacuation zones.

Built-in Local Network ports, dedicated for local peripherals such as microphone stations, extend the physical range of the system and expand functionality. The redundant dual ring network structure offers a fail-safe communication platform for alarm messages, control and information exchange that does not require central processing and in case of link failure remains fully functional.

System installation

The DAU500 is a powerful, all-in-one, EN54-16 wall mounted voice alarm solution suitable for a range of centralised and decentralised PAVA applications. It ships network ready in a compact single cabinet with the ability to connect up to 254 panels on its global audio network, which offers flexibility and optimisation for a range of voice applications

The system is hugely flexible, with the addition of the HEXAPOD6 each 2-channel output line A&B can be split into 6 additional independent, monitored, speaker-line outputs, 18 zone capability from a compact yet powerful self-contained battery backed up wall mounted solution.

Each EF-DA200T can be impedance matched to the intended loudspeaker line voltage by coupling to the appropriate transformer; in the case of 100v line speaker circuits, there is the EF-T100 toroidal transformer available and for 70v line speaker circuits, we recommend the EF-T107 toroidal transformers

This all-in-one voice solution includes the following:

- 600W per EFDAU500 panel
- Switchable 100 Volt Line or 70 Volt Line compatibility
- 3 x 2 channel audio amplifier
- 1 x 2 channel backup amplifier
- AC surveillance continuously or pulse 20 kHz signal with EOL
- Battery charger included for 10-55AH
- Battery space inside enclosure
- Built-in fire microphone with front end controls
- Local Audio Network: 3 x L-NET for remote control devices
- Global Audio Network: 2 x G-NET for ring connectivity of up to 254 panels
- Background music input BGM



EF-T107 - 100/70V Toroid Output Transformer

- 100 v line configuration, supports up to 100W
- 70 v line configuration, supports up to 100W in standard mode and 200W when bridged
- Used to couple the DAU500 transformers to the speaker lines
- Each DAU500 amplifier supports a connection to up to 2 output transformer
- Max 6 transformers per DAU500 panel



EF-T100 - 100V Toroid Output Transformer

- 100 v line configuration, supports up to 100 W in standard mode and 200 W when bridged
- 70 v line is not supported
- Used to couple the DAU500 transformers to the speaker lines
- Each DAU500 amplifier supports a connection to up to 2 output transformer
- Max 6 transformers per DAU500 panel



EF-HEXAPOD6 - Amplifier Sharing / Multiplexer

Remote Controlled Zone Extender Module for additional 6-sub-zones, dual source path A&B:

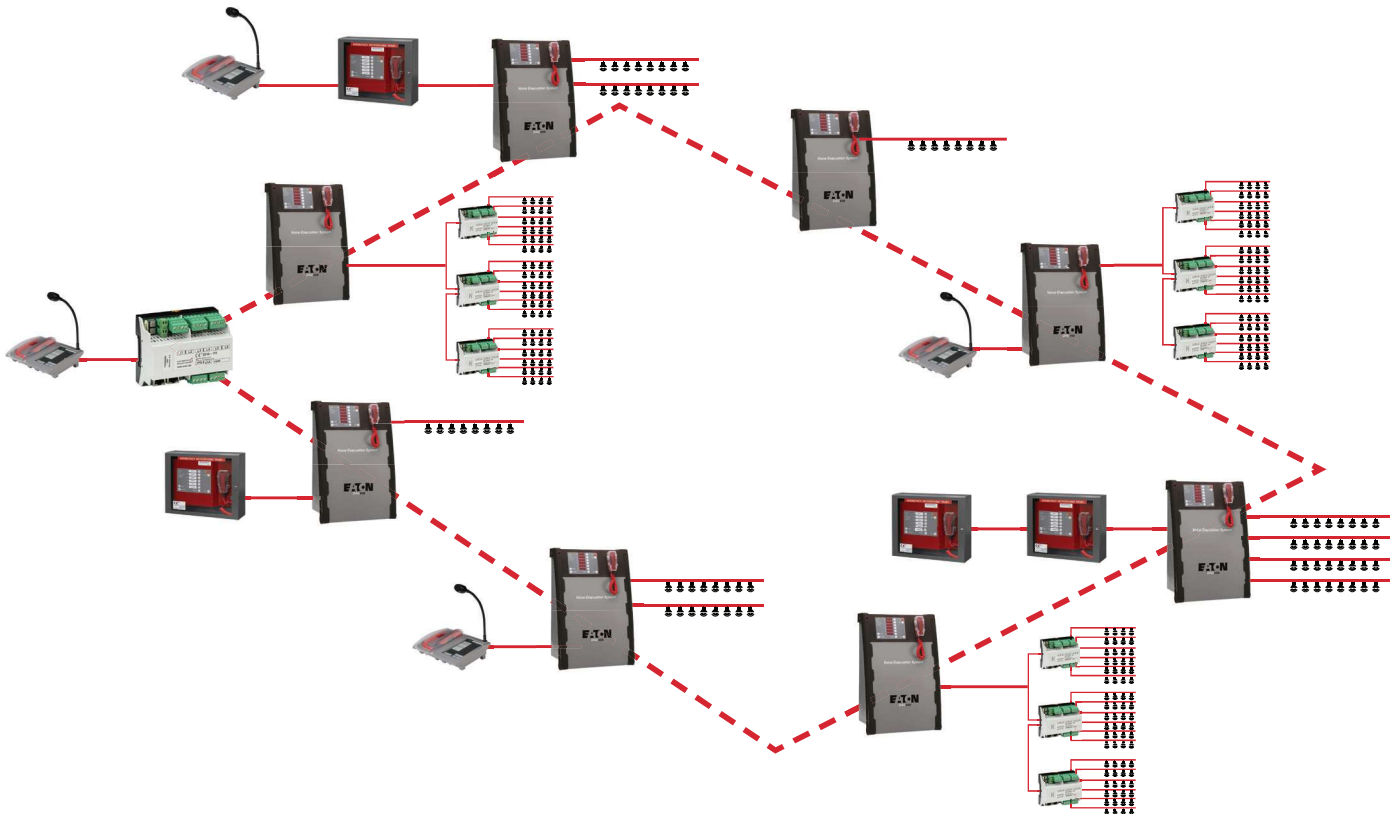
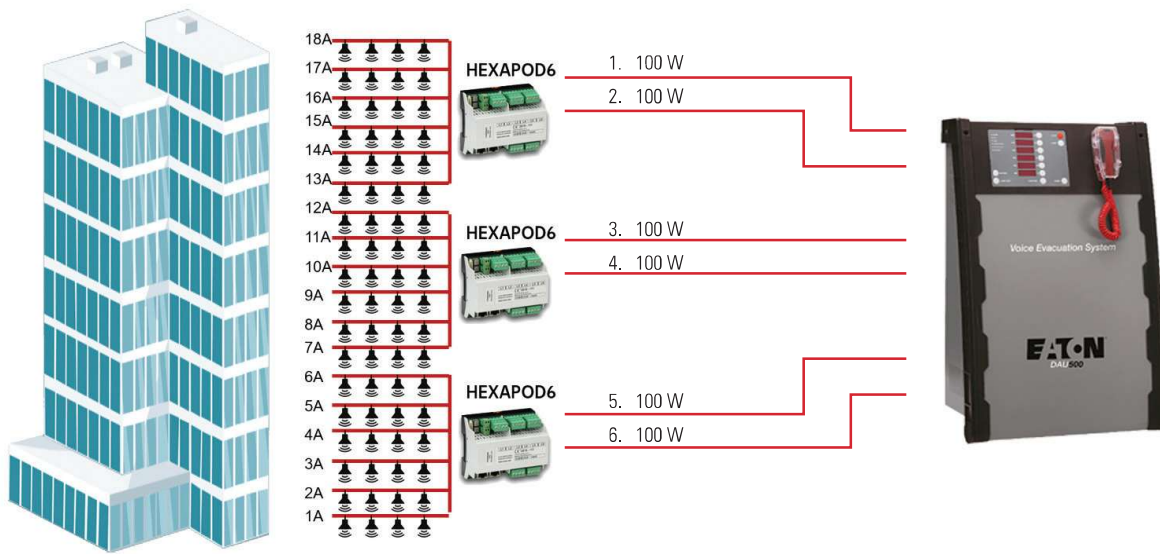
- Directly connected to a single/dual output line of the EFDAU500
- The HEXAPOD6 Zone Extender & Switching module sub-divides the signal path A & B into 6 x additional monitored speaker-line outputs
- All HEXAPOD6 -outputs can be individually addressed and are carrying signal path A or B
- Each output can switch to internal 20kHz line surveillance generator (path C)
- Each switched output zone requires an EOL-device for line-integrity detection
- Max. of 3 x HEXAPOD6 sharing 1x L-Net connection for communication and power (Without additional 24VDC)
- The HEXAPOD6 can be remotely powered in case more than 3 x HEXAPOD units need to be linked to a single L-Net line
- Max. load: 800 W
- Redundant L-Net link, 2 x RJ45

Speaker line multiplexer example using 3 x EF-HEXAPOD6

(3 per EFDAU500 panel advised)

With the ability to connect up to 254 panels on its global audio network which offers flexibility and optimisation for a range of voice applications. This will permit broadcasts from any location to any combination of selectable zones

The system can be used with its integrated microphone, however there are a number of alternative microphones available



EFDAU500 Voice View Control Station Software

Eaton's Voice View Control Station is a Windows PC application dedicated to Eaton's DAU500 Voice Alarm & Public Address system. Thanks to a simple graphical user interface (GUI), Control Station provides easy to operate control surface, optimized for touchscreens.

Zone controls, message triggering, background music management and voice paging as well as feedback information, creates a combination ideal for a user-friendly experience within a powerful workstation



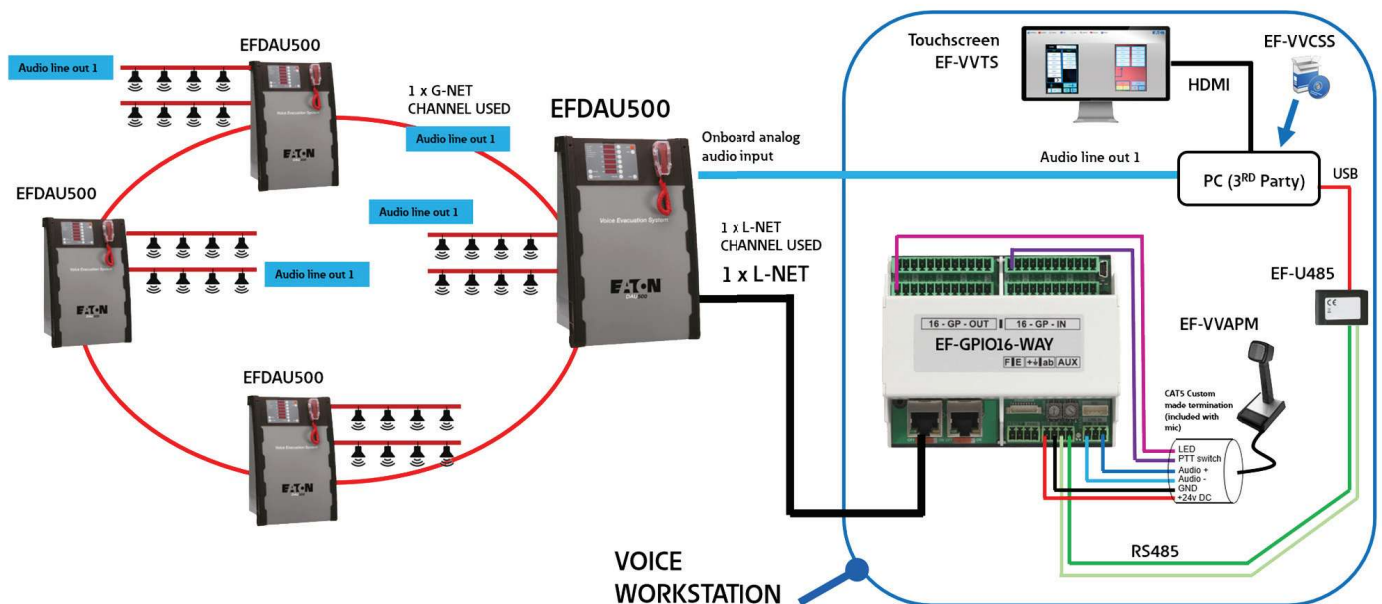
Connectivity

The Voice View Control Station computer is connected to the DAU5000 voice system through a serial RS485 link on the EF-GPIO-16WAY module.

In order to complete the RS485 interface connection, on the PC side, it is required to use a USB to RS485 converter (EF-U485, available from Eaton).

If live audio / voice functionality is required, the audio source or microphone is connected to the analogue line level audio input located on the same EF-GPIO-16WAY device.

Where additional security measures are required for link integrity, L-Net bus may be optionally installed as a redundant link



Firefighter's microphone for DAU500 PAVA system

The Firefighter's Microphone EF-FMWB is a wall-mounted microphone paging station, with the push-button panel and fireman microphone, for use with Eaton's DAU500 voice alarm system. It can address up to 6 zones for emergency EVAC paging. It includes a fist microphone with built-in PTT button, which can be pre-programmed to access a certain zone or group of zones. EVAC and ALERT messages may be triggered on the front of the panel by means of dedicated buttons.

Additionally, the firefighter's microphone incorporates mandatory EN-54-16 system indications, as well as fault/emergency buzzer and mandatory manual controls, including Lamp Test and system reset.

It is easily connected to L-Net interface of the public address and voice alarm system's main DAU500 panel and can be daisy-chained with more L-Net devices.



Features

- Handheld firemen's microphone with ALL-CALL button
- Coiled cord working length: 1.10 m
- Fully monitored fault system
- Access level 2 protected wallbox with STANDARD keylock
- Zone selection and busy indicators
- Power, Evac, Fault, Power supply, System fault & Network status indicators
- Lamp test, Silence, Function, Reset, Evac & Alert buttons
- Addressable
- Redundant L-Net link, 2 x RJ45
- 2 x RJ45 for ring, spur or daisy-chain interfacing with the EFDAU500
- Dimensions: 385 H x 440 W x 140 D



FP type cable
4 pair (Draka 910245)



FP type cable
Emergency use



EF-FMT - Fire Microphone with Touchscreen

The desktop/wall mounted microphone station (EF-FMTC) with touchscreen panel has been designed for use with the DAU500 voice alarm system. It can address up to 255 zones and trigger every source or message available in the entire system. It features gooseneck microphone for general paging and a separate, fully monitored fireman microphone.

The EF-FMTC desktop microphone offers dual mode operation: paging mode (fireman's door closed), where only general messages and paging features are available; emergency mode (fireman's door open), where emergency messages and fireman's microphone is available.

The microphone is connected to L-Net interface of DAU500 panel and may be daisy-chained with more L-Net devices. It is dedicated for call points where both general-purpose paging and emergency evacuation management is necessary. Fault monitoring and EVAC functionality are included, making it suitable as an emergency microphone.



Fireman-Microphone, wall and desktop version:

- 100 v line configuration, supports up to 100W
- 70 v line configuration, supports up to 100W in standard mode and 200W when bridged
- Used to couple the DAU500 transformers to the speaker lines
- Each DAU500 amplifier supports a connection to up to 2 output transformer
- Max 6 transformers per DAU500 panel



EF-FMP – Replacement DAU500 Panel Microphone

- Handheld firefighter's microphone
- Service replacement part for DAU500 panel
- Curl cord working length: 1.10m
- Supervised for fault
- Access level 2 protected



EF-FM – All Call Microphone

- Firefighter's microphone
- Desktop or wall mounted
- Wall-brackets included
- Handheld microphone with ALL-CALL button
- Curl cord working length: 1.10m
- Supervised for fault



EF-CMT – Paging Microphone with Touch-screen

- Desktop non-emergency paging microphone with touchscreen
- Addressable: 0-255
- 2 x RJ45 for ring, spur or daisy-chain interfacing with DAU500
- Configurable 7" touchscreen for paging control and status information
- 30cm gooseneck with dynamic hyper-cardioid microphone
- Redundant L-NET link, 2 x RJ45



EF-CMP – Paging Microphone with Buttons

- Desktop non-emergency paging microphone
- 6 zone selectable buttons plus a PTT (push-to-talk) button
- 30cm gooseneck with dynamic hyper-cardioid microphone
- Addressable: 0-255
- Redundant L-NET link, 2 x RJ45
- 2 x RJ45 for ring, spur or daisy-chain interfacing with DAU500

Interfacing

EF-GPIO16WAY is a DIN-rail mounted I/O interface with input surveillance and redundant network link, dedicated for the DAU500 Public Address and Voice Alarm System.

It features programmable 16 in / 16 out pins, mandatory EVAC and FAULT status output contacts, monitored analogue audio input and monitored RS-485 interface for integration with third-party external control panels.

EF-GPIO16WAY can trigger any user defined event to any zone or set of zones in the entire system. It can also transmit audio signal from built-in local audio input to any zone over system network.

EF-GPIO16WAY is connected to L-Net interface of the DAU500 main unit and may be daisy-chained with more L-Net devices. EF-GPIO16WAY may be used for emergency signals transmission, as well as for commercial purposes. As a component compliant with EN54-16, EF-GPIO16WAY features built-in surveillance of all input contacts, surveillance of serial port, monitoring of audio input and network link surveillance. It also offers redundant L-Net connection for backup of the critical transmission path.



EF-GPIO-16WAY – Programmable Input/Output module

Remote contact interface with following hardware configuration:

- DIN-RAIL
- 16 programmable monitored inputs
- 16 programmable outputs
- RS485 datalink with 2W DC aux output
- Balanced analogue audio input
- General Fault and EVAC status output
- Redundant L-NET link, 2 x RJ45
- Addressable

Networking

The EF-FSC-MM is DIN-rail mounted; optical multi-mode fibre signal adapter dedicated for DAU500 Voice Evacuation System.

EF-FSC-MM is dedicated for use with only the G-Net (Global Network) of the DAU500 system, interconnecting main units of the system. It extends a single link range up to 2km.

Each fibre adapter is powered directly over the G-Net port.

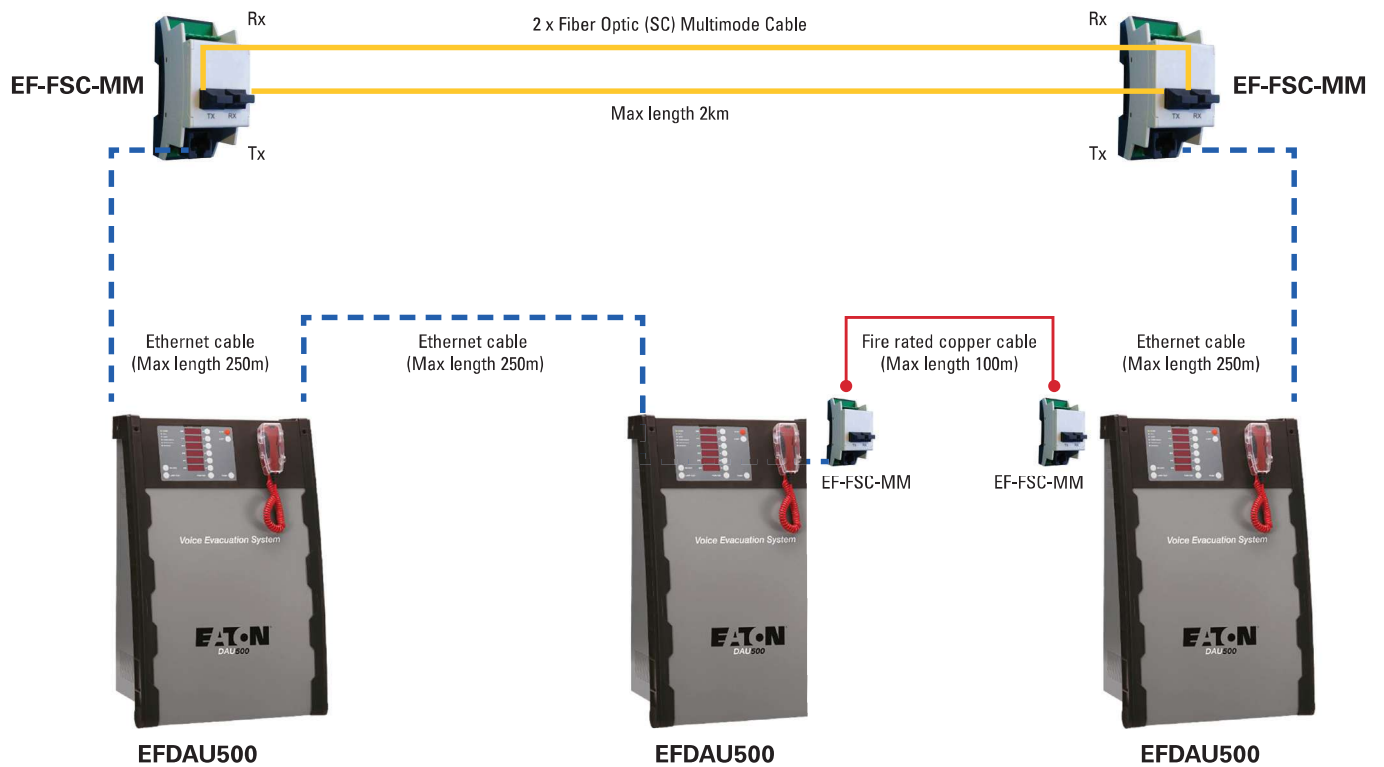
The EF-FSC-MM features standard SC connectors for the fibre cable, providing easy click-in connection.



EF-GPIO-16WAY – Programmable Input/Output module

Remote contact interface with following hardware configuration:

- DIN-RAIL
- 16 programmable monitored inputs
- 16 programmable outputs
- RS485 datalink with 2W DC aux output
- Balanced analogue audio input
- General Fault and EVAC status output
- Redundant L-NET link, 2 x RJ45
- Addressable



Loudspeaker Range

Eaton's Loudspeaker range delivers exceptional performance, reliability, and sound clarity for Voice Alarm and Public Address applications across diverse environments. Our EN54-24 certified loudspeakers—including ceiling speakers, sound projectors, horns, and column models—feature a wide frequency range, making them ideal for voice alarm announcements and background music. Ceiling speakers are available with plastic and metal fire domes, while sound projectors ensure superior speech intelligibility in hallways, car parks and Metro stations. Horn and column loudspeakers provide high sound pressure levels and robust durability for large areas such as shopping malls, storages, and transit hubs, as well as outdoor environments.

Public Adress ceiling speakers feature quick-mount installation and powder-coated metal construction, offering cost-effective solutions for general announcements and background music in commercial and public spaces.

Public Address 6W 130mm Ceiling Loudspeaker

EF-CS6-130-PASB



- Quick mount with spring clamps
- 100V/70V line transformer
- Powder coated metal Chassis and Grill
- 100.0 dB at 1 meter
- IP 21

Public Address 6W 165mm Ceiling Loudspeaker

EF-CS6-165-PASB



- Quick mount with spring clamps
- 100V/70V line transformer
- Powder coated metal Chassis and Grill
- 97.5 dB at 1 meter
- IP21

EN54 6W 130mm Ceiling Loudspeaker Plastic Fire Dome

EF-CS6-130-ENP



- EN54-24 certified
- Antistatic, Schock resistant plastic housing
- Excellent sound quality
- 98.3 dB at 1meter
- Quick mount with spring clamps
- 100V/70V line transformer
- IP21
- EASE data available

EN54 6W 165mm Ceiling Loudspeaker Plastic Fire Dome

EF-CS6-165-ENP



- EN54-24 certified
- Antistatic, Shock resistant plastic housing
- Excellent sound quality
- 100.2 dB at 1meter
- Quick mount with spring clamps
- 100V/70V line transformer
- IP 21
- EASE data available

EN54 6W 130mm Ceiling Loudspeaker Metal Fire Dome

EF-CS6-130-ENMSC



- EN54-24 certified
- BS5839 part 8
- Excellent sound quality
- 98.3 dB at 1 meter
- Quick mount with spring clamps
- 100V/70V line transformer
- Metal fire dome
- Ceramic terminal
- Thermal fuse
- 1 µF capacitor
- IP21
- EASE data available

EN54 6W 165mm Ceiling Loudspeaker Metal Fire Dome

EF-CS6-165-ENMSC



- EN54-24 certified
- BS5839 part 8
- Excellent sound quality
- 100.2 dB at 1 meter
- Quick mount with spring clamps
- 100V/70V line transformer
- Metal fire dome
- Ceramic terminal
- Thermal fuse
- 1 µF capacitor
- IP21
- EASE data available

20W Plastic Sound Projector Loudspeaker

EF-SP20-130-P-ENC



- EN54-24 certified
- BS 5839 Part 8
- 99,5 dB at 1 metre
- Solid aluminum mounting bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 4.7 µF capacitor
- IP66
- EASE data available

30W Horn Loudspeaker

EF-H30-ENC



- EN54-24 certified
- BS 5839 Part 8
- 110.1 dB at 1 metre
- Flexible mount with U-bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 4.7 µF capacitor
- IP66
- EASE data available

20W Metal Sound Projector Loudspeaker

EF-SP20-130-M-ENC



- EN54-24 certified
- BS 5839 Part 8
- 103.2 dB at 1 metre
- Solid aluminum mounting bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 4.7 µF capacitor
- IP66
- EASE data available

20W Metal Column Loudspeaker

EF-CL20-ENC



- EN54-24 certified
- BS 5839 Part 8
- 100.3 dB at 1 meter
- Quick mount with swivel bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 4.7 µF capacitor
- IP66
- EASE data available

10W Horn Loudspeaker

EF-H10-ENC



- EN54-24 certified
- BS 5839 Part 8
- 106.7 dB at 1 metre
- Flexible mount with U-bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 2.2 µF capacitor
- IP66
- EASE data available