

Emergency Voice Communication Systems

VoCALL 16 Digital EVCS - Standalone



Eaton VoCALL 16 is a high specification, digital, loop driven, intelligent emergency voice communication system offering sophisticated functionality along with simple and intuitive end user interface.

VoCALL16 is designed to ensure the simplicity of future system expansion without additional accessories. A maximum of 16 outstations of any combination can be connected to a main panel on the loop. Loop wired configuration along with short circuit isolators ensures the network is fault tolerant.

The system uses digital audio communication to achieve high audio quality and intelligibility when it matters the most. Continuous fault monitoring ensures high availability. Extensive time stamped logs, also available on SD cards, ensures ease of debugging.

The simplicity of operation, ease of cabling and competitive pricing make the system suitable for a wide range of applications. In combination with our range of soft addressable digital outstations, stand-alone system reduces labor and material cost along with potential for wiring errors associated with traditional spur systems.

Features

- Up to 16 digital outstations per panel
- 4 core loop configuration
- Soft addressing of outstations
- Extensive time stamped logs on SD card
- Large graphical user interface
- PIN protected user access
- Flush mount options
- Fully compliant with BS5839-9



Emergency voice communications

VoCALL 16 Digital EVCS - Standalone

Benefits

- Fault tolerant loop wired design
- Simple configuration
- Fast commissioning
- Easy maintenance and extensive logging
- Superior audio quality
- Simple and intuitive operation
- End user graphical interface
- Full range of compatible outstations
- Quick and simple identification of outstation in use
- Secure access for standard users

Installation

- The panel is designed for ease of installation with a full range of knockouts on all surfaces along with a substantial rear entry cut-out.
- Up to 200m max between outstations.
- Up to 2000m total loop length.
- 4 core 1.5mm cable loop (check local standards for cable type and installation regulations).
- Panels are provided with a keyhole type mounting on the rear for ease of installation and alignment.
- Key operated hinged lockable door.
- Mains input protection is provided via a resettable fuse.
- Comprehensive installation and operation manual is provided on the SD card in each panel and online.

Capacity

- Up to 16 outstations in total, non-networkable system.
- All digital outstations Type A, Type B, and Emergency Assist Alarm (EAA) can be connected on the loop in any order.

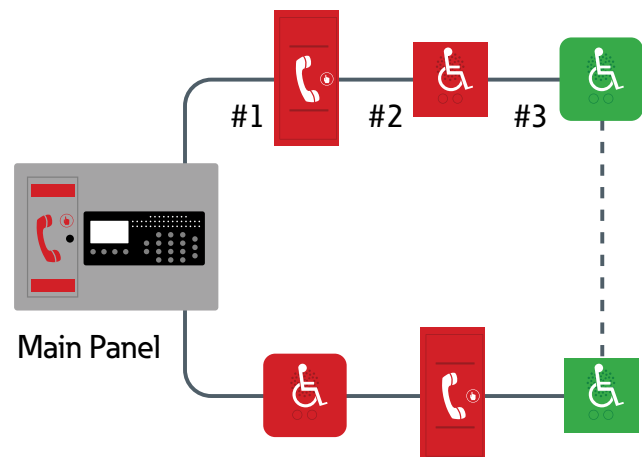
Functionality

- Bi-directional calls facility. Lift the handset (Type A) or push the button (Type B) to make a call to panel. Dial the outstation number from panel to call the outstation.
- Loud-speak and listen in facility available with type B outstations.
- Three access levels defined - User, Manager, Engineer. Upto 10 personnel accounts with facility to configure access level permissions.
- Emergency Assist interface for disabled toilet alarms with reassurance function.
- All personnel accounts are accessed with relevant 4 digit PIN codes enabling security.
- PIN access required for view panel information, set panel configuration, logs viewing and management, fault management. No PIN access needed to make or receive calls.
- Intuitive configuration steps made possible with graphical user interface, well structured menu options, soft addressing of outstations on the loop.
- Indications (LED and buzzer), operation (calls, faults types) and logging in full compliance with BS5839-9:2011. Extensive time stamped logging of all call operations, faults and system events.
- Digital audio transmission and automatic volume control to maximize clarity of communication between panel and outstation.
- In event of occurrence of external short circuit, system will operate integral short circuit isolators on the devices nearest to each side of the short isolating the fault. Panel then drive the communication in both directions maintaining rest of the network functional.
- Adherence to EN 55103:2 2009, EN 55032: 2015 (Emission) EN 55035: 2017 (Immunity), EN 54-4 (Power supply).

User interface

- Large user interface display (100mm x 40mm) with adjustable brightness provides comprehensive information. This along with large tactile standard mechanical keypad with acoustic feedback allows for ease of operation in an emergency situation even with gloved hands.
- Clear indication with universal symbols, bright LEDs for depicting system health and operation in a glance. Individual LEDs (16 in #) to indicate call and fault state of each outstation provides comprehensive information even to an untrained user unfamiliar with the operation of the unit.

Wiring and installation



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Technical specification

Power supply

Input voltage	230V ± 10% RMS 50/60Hz AC - input to Power supply
Current consumption @ 24V:	Secondary source - Battery back-up. Batteries not supplied. 2 x Yuasa 12Ah 12V battery (recommended)
Power consumption	
VoCALL16 Main panel	2.7W
Type A outstation	0.65W
Type B outstation	0.65W
EAA outstation	0.65W

Mechanical

Dimensions (H x W x D mm)	
VoCALL16 Main panel	355 x 487 x 158 mm
Type A outstation	320 x 152 x 114 mm
Type B outstation	132 x 132 x 57 mm
EAA outstation	132 x 132 x 57mm
Weight (VoCALL16 Main panel)	6.7kg (without batteries)
Weight (Type A outstation)	2.2kg
Weight (Type B outstation)	0.6kg
Weight (EAA outstation)	0.6kg

Environmental

Temperature (Storage)	-5°C to +40°C
Temperature (Operation)	-5°C to +40°C
Humidity range	0% to 95% non-condensing

Product order codes

Order code	Description
MX16	VoCALL 16 Main panel
MX16-SSC	VoCALL 16 Main panel, stainless steel, flush cover
MX16-BEZ	VoCALL16 Main, semi-flush frame bezel
TA16-RS	Type A outstation (Red, surface mount)
TA16-BEZ	Type A outstation (Bezel, red, flush mount)
TA16-SS	Type A outstation (Stainless steel, surface mount)
TA16-SS-BEZ	Type A outstation bezel (Stainless steel, flush mount)
TB16-GS	Type B outstation (Green, surface mount)
TB16-GF	Type B outstation (Green, flush mount)
TA16-RF	Type B outstation (Red, flush mount)
TB16-RS	Type B outstation (Red, surface mount)
EAA16-LS	Emergency Assist Alarm outstation
CFEAPULLKIT	Stand alone powered EAA Kit

VoCALL 16 Digital EVCS - Network



Eaton's VoCALL 16 is a high specification, digital, loop driven, intelligent Emergency Voice Communication System, offering sophisticated functionality along with a simple and intuitive end user interface.

This network* version enables a system installation of up to 32 main panels (MX) and network panels (NX) in any combination (a minimum of 1 MX is required). With a maximum of 16 outstations per panel, a total system size of 512 outstations is possible, all connected and communicating via isolated fault tolerant loops.

The system also uses digital audio communication to achieve high audio quality and intelligibility when it matters the most. The use of isolated loops also reduces labour and material cost along with potential for wiring errors associated with traditional spur systems.

VoCALL16 is designed to ensure the simplicity of future expansion. Continuous fault monitoring and reporting ensures high availability. Extensive time stamped logs ensure ease of debugging and recording for compliance.

In combination with our range of soft addressed digital outstations and intuitive laptop configuration tool, the simplicity of operation, ease of cabling and competitive pricing makes this system suitable for a wide range of applications.

Features

- Network capacity of 512 outstations
 - Up to 32 panels (main/network) in a loop
 - Up to 16 digital outstations per panel
 - 4 core loop configuration (two for power, two for data)
- Simple to design network
 - At least one main panel is required
 - Any combination of panels (MX/NX) possible
 - Any combination of outstations possible
 - Centrally controlled by a main panel
- Easy to install and operate
 - Automatic soft addressing of panels and outstations
 - PC based application for configuration
 - Complex call routing is possible
 - Extensive time stamped logs on SD card
- Large graphical user interface
- PIN protected user access
- Fully compliant with BS5839-9

Note: *Networking functionality can only be accessed by trained personnel



Emergency voice communications

VoCALL 16 Digital EVCS - Network

Benefits

- Fault tolerant loop wired design
- Simple drop in replacement of device possible, if needed
- Simple configuration, faster commissioning
- Easy maintenance and extensive logging
- Superior audio quality
- Simple and intuitive operation
- Centrally controlled network architecture
- Full range of compatible outstations
- Appealing look with flush mount options
- Quick and simple identification of device in use
- Secure access for standard users

Installation

- The panel is designed for ease of installation with a full range of knockouts on all surfaces along with a substantial rear entry cut-out.
- Up to 300m max between panels. Up to 9km total loop length.
- Up to 200m max between outstations. Up to 2000m total loop length.
- 4 core 1.5mm cable loop (check local standards for cable type and installation regulations).
- Panels are provided with keyhole type mounting points on the rear for ease of installation and alignment.
- Key operated hinged lockable door.
- Mains input protection is provided via a resettable fuse.
- Comprehensive installation and operation manual is provided on the SD card in each panel and online.

Capacity

- Up to 32 panels in total, with any combination of main/network panel.
- Master panel has to be a main panel.
- Up to 16 outstations per panel, with any combination of Type A, Type B and Emergency Assist Alarm (EAA)
- Network capacity of 512 outstations.

Wiring and installation



Functionality

- Panel has facility for 10 users with access profiles set during commissioning for example user, supervisor and engineer.
- Supervisor and engineer modes can only be accessed via the relevant PIN codes.
- Users can be configured to receive, make and reset a call, view fault / event / call log, functions, view panel version, accept system faults, set date/time etc.
- The unit has digital audio transmission and automatic volume control to optimize clarity of communication between outstation and main panel.
- Engineer mode allows alteration to the system configuration such as change all PINs, panel settings, site name, panel name relay settings, addition or removal of outstations.
- VoCALL16 is designed to ensure simplicity of future expansion up to 16 outstations.
- In the event of an external short circuit occurring the system will operate the integral short circuit isolators on the devices nearest to each side of the short. The panel will then drive full communication from both sides of the loop thus maintaining full communication with all outstations.

User interface

- The main element of the user interface is a large 100mm x 40mm display that provides comprehensive user information which, along with the large tactile standard mechanical keypad, allows for ease of operation in an emergency situation even with gloved hands.
- In addition to the graphical user interface there are 16 numbered LEDs to provide instant clear indication as to which outstation is calling even to an untrained user unfamiliar with the operation of the unit.

Emergency voice communications

VoCALL 16 Digital EVCS - Network

Technical specification

Power supply

Input voltage	230V ± 10% RMS 50/60Hz AC - input to power supply
Current consumption @ 24V:	Secondary source - Battery back-up. Batteries not supplied. 2 x Yuasa 12Ah 12V battery (recommended)
VoCALL16 Main panel	2.7W
VoCALL 16 Network panel	2.7W
Type A outstation	0.65W
Type B outstation	0.65W
EAA outstation	0.65W

Mechanical

Dimensions (H x W x D mm)	
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VoCALL 16 Network panel	355 x 355 x 145 mm
Type A outstation	320 x 152 x 114 mm
Type B outstation	132 x 132 x 57 mm
EAA outstation	132 x 132 x 57mm
Weight (VoCALL16 Main panel)	6.7kg (without batteries)
Weight (VoCALL 16 Network panel)	5kg (without batteries)
Weight (Type A outstation)	2.2kg
Weight (Type B outstation)	0.6kg
Weight (EAA outstation)	0.6kg

Environmental

Temperature (Storage)	-5°C to +40°C
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Humidity range	0% to 95% non-condensing

Product order codes

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MX16	VoCALL 16 Main panel
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MX16-BEZ	VoCALL16 Main panel, semi-flush frame bezel
NX16	VoCALL 16 Network panel
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TA16-BEZ	Type A outstation (Bezel, red, flush mount)
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TB16-GF	Type B outstation (Green, flush mount)
TA16-RF	Type B outstation (Red, flush mount)
TB16-RS	Type B outstation (Red, surface mount)
EAA16-LS	Emergency Assist Alarm outstation
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VoCALL 5



The VoCALL 5 (EFVCC5) is ideal for smaller installations which require up to 5 outstations or Emergency Assist Alarms.

The system comprises the Compact 5 line unit which controls up to 5 outstations (Type A, Type B, Emergency Assist Alarms or in Far and Middle East applications jack plates).

The EFVCC5 is a standalone unit containing the systems master handset, power supply and connectivity for the 5 outstations. 20mm knockouts are provided for all system cabling and the housing is of ample size to support 2x 5Ah backup batteries (not supplied).

The unit is microprocessor controlled, but requires no on site programming; it is fitted with end of line resistors which are simply discarded when an outstation is connected making installation quick and simple.

Features and benefits

- BS5839 part 9 compliant
- Monitored handset
- Controls up to 5 outstations
- 5 line keys, 1 fault accept
- 17 status LEDs
- Surface mount panel or optional stainless steel flush mount cover
- Relay outputs
- Simple cabling, outstations connect directly into the master using 2 core radial fire rated cables
- In addition to Type A and Type B outstations the VoCALL 5 can also monitor Emergency Assist Alarms, and Jack type outstations for relevant regions.
- No programming required. The panel is fitted with end of line resistors which are discarded when an outstation or Emergency Assist Alarm is connected

Technical specification

Code	EFVCC5
Product description	VoCALL 5, compact 5 line unit

Power supply

Voltage	230V ac +/- 10% 50/60Hz
Internal power supply	24V dc
Supply and battery	Monitored, open, short, fuses
Protection	Deep discharge, short, thermal
Battery size and type	2 x 12V VRSLA 5Ah
Mains fuse	240V 2A HRC
Battery fuse	1A PTC
Charge current	250mA (max)

Inputs

Number of lines	5
Remote enable	Short to use

Outputs

Number	2 (fault & in-use)
Type	Volt free relay
Contact	30V dc 1A

Controls

Buttons	5 zone keys, 1 mute buzzer
Zone LEDs (x5)	1 line status, 1 fault status per zone
Supply LED	AC & DC
Fault LEDs	4 (General, System, Master, PSU)

Outstation cables

Type	Fire rated (Some installations will require enhanced cabling, see local regulations for guidance.)
Cores	2 Core (1mm or 1.5mm)
Distance (max)	300m

Physical

Weight	6.5kg
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Installation

Mounting	Surface or optional stainless steel flush mount
Cutout	330mm x 300mm (semi-recessed unit)
Cable Entries	Top: 7 x Cable knockouts (20mm)

TOA Corporation (UK) Ltd are the official global partner and supplier of Eaton's Emergency Voice Communication Systems VoCALL5 and VoCALL16.

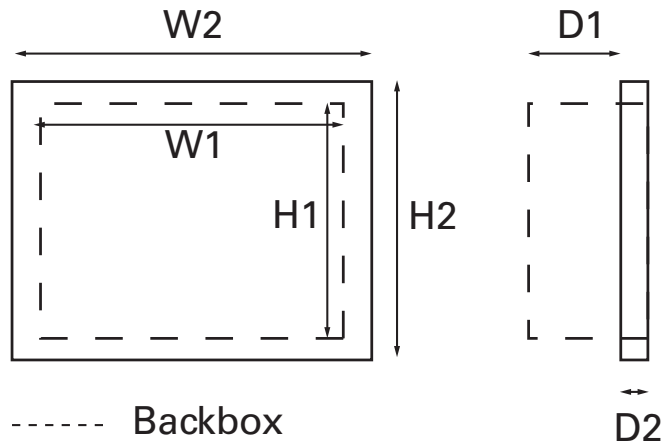
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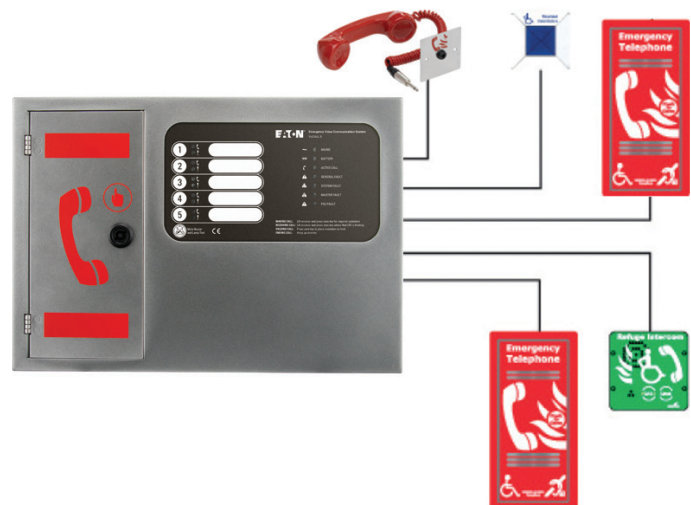
Dimensions



Description	H1 (mm)	W1 (mm)	D1 (mm)	D2 (mm)
Backbox	280	397	77	-

Description	H2 (mm)	W2 (mm)	D1 (mm)	D2 (mm)
Flush mounted	309	427	77	16

Typical application schematic



Standard	Certificate number
LVD	EN60950
Local	BS5839 Pt9

Catalogue numbers

Description	Code
VoCALL 5, compact 5 line unit - surface mount	EFVCC5
VoCALL 5, compact 5 line unit - stainless steel flush mount cover	EFVCC5-FC
VoCALL 5, compact 5 line unit - semi flushing bezel	EFVCC5-FB