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: 2011

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

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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
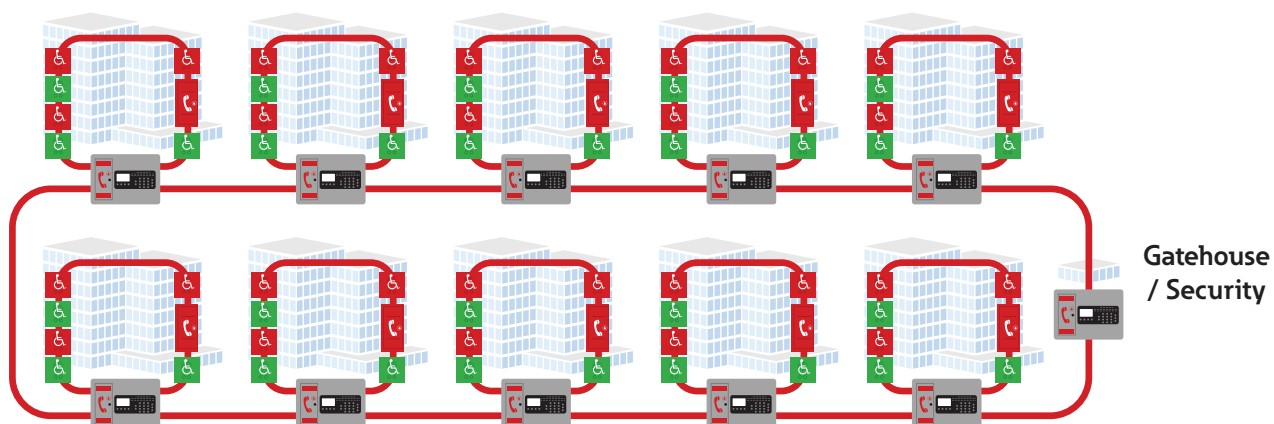- Secure access for standard users

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 and Type B
- Network capacity of 512 outstations.

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 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.

Wiring and installation

Gatehouse / Security

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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)
VoCALL16 Main panel	2.7W
VoCALL 16 Network panel	2.7W
Type A outstation	0.65W
Type B outstation	0.65W

Mechanical

Dimensions (H x W x D mm)	
VoCALL16 Main panel	487 x 355 x 158 mm
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
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

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 panel, semi-flush frame bezel
NX16	VoCALL 16 Network panel
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)

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