



Cerberus PACE Compact

Public Address and Controlled Evacuation Planning Tool

siemens.com/cerberus-pace

Introducing Cerberus PACE Compact


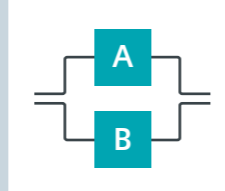






The sound of safety

Cerberus PACE – Public Address and Controlled Evacuation
 In commercial and public buildings, life safety must always be the highest priority. Effectively moving people out of harm's way in case of an emergency is largely a matter of communication – which is why public address and voice alarm (PA/VA) systems in these buildings aren't just a useful tool for announcements, entertainment or live moderation but an integral part of the safety infrastructure.

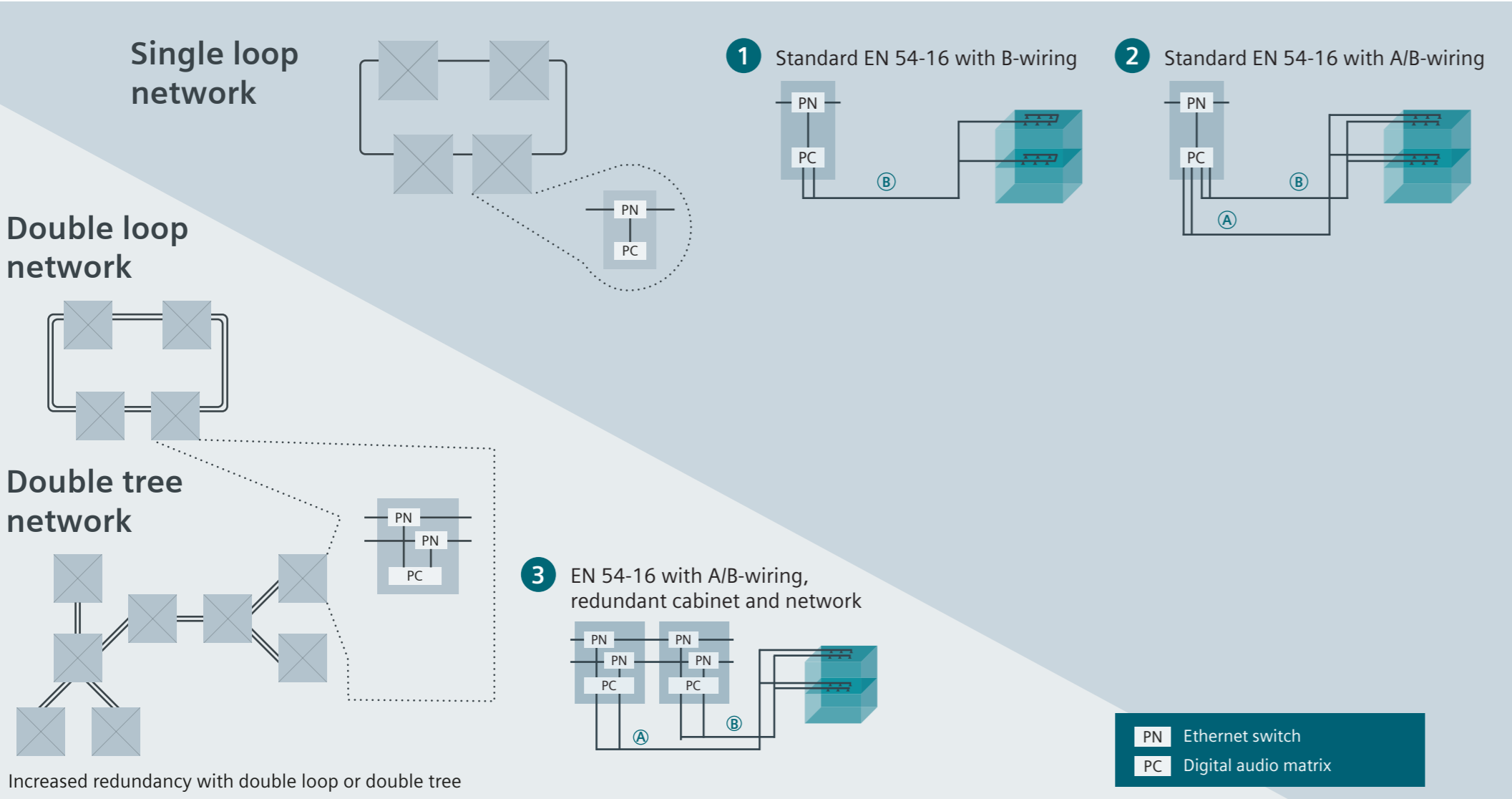
With Cerberus PACE, you can cover all your PA/VA needs with a single solution. It was designed with the specific convenience and emergency applications in modern businesses and organizations in mind, from ambient music to public speaking to guided evacuation. Thanks to its state-of-the-art modular and scalable system architecture, Cerberus PACE can be customized for buildings of all types and sizes and offers unique benefits that will reliably ensure the safety and comfort of your employees, visitors and guests 24/7.

Your benefits at a glance

 <p>Beyond EN 54-16 Regulatory compliance and much more thanks to state-of-the-art technology</p>	 <p>Multi-redundancy Maximum system reliability with redundant components up to complete double structure</p>	 <p>Real-time engineering System configuration without restarts ensures business continuity at all times</p>
 <p>Pro Sound High-quality, low-latency speaker output for optimum intelligibility and comfortable ambience</p>	 <p>Step-by-step modernization Smooth system implementation with addressable end-of-line modules</p>	 <p>Loop isolators Failsafe loop isolators thanks to omission of error-prone capacitors</p>

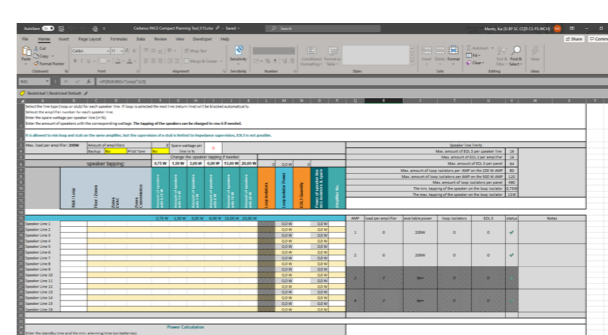
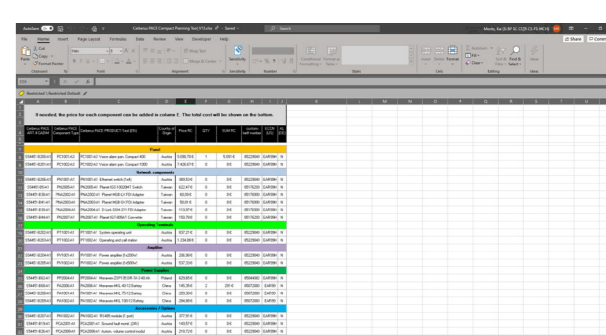
Multi-redundancy

To ensure failure safety for all applications, Cerberus PACE Compact can incorporate all redundancy levels from individual backup components up to a complete double structure. Moreover, the network can be made redundant by expanding the EN 54-16 standard single loop network topology to a double loop / double tree topology or combinations thereof.



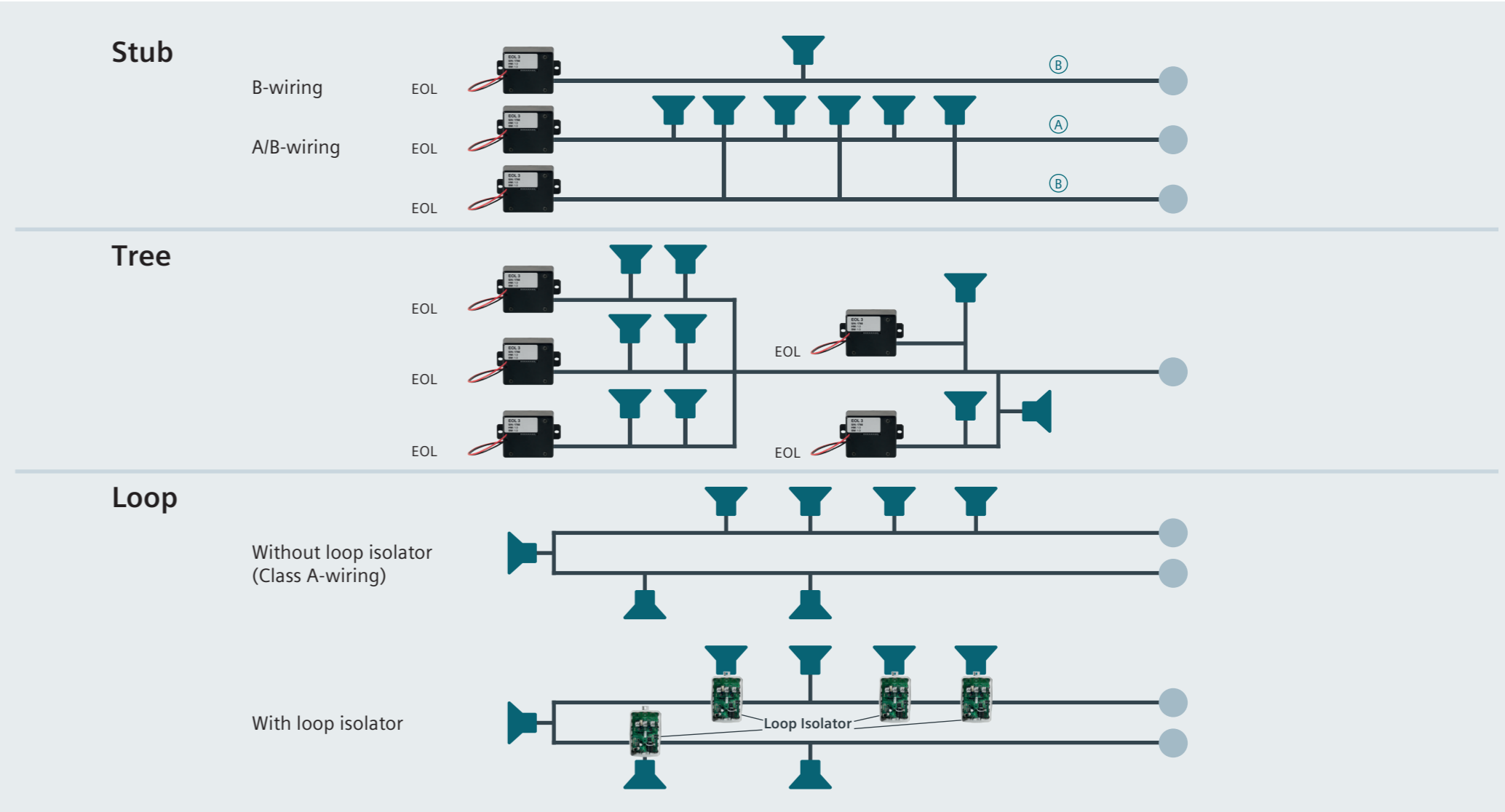
System planning in three steps

Every building has its own requirements when it comes to a PAVA system. Ensure that you have all relevant information, so that our planning tool can help you to create a fitting system configuration.

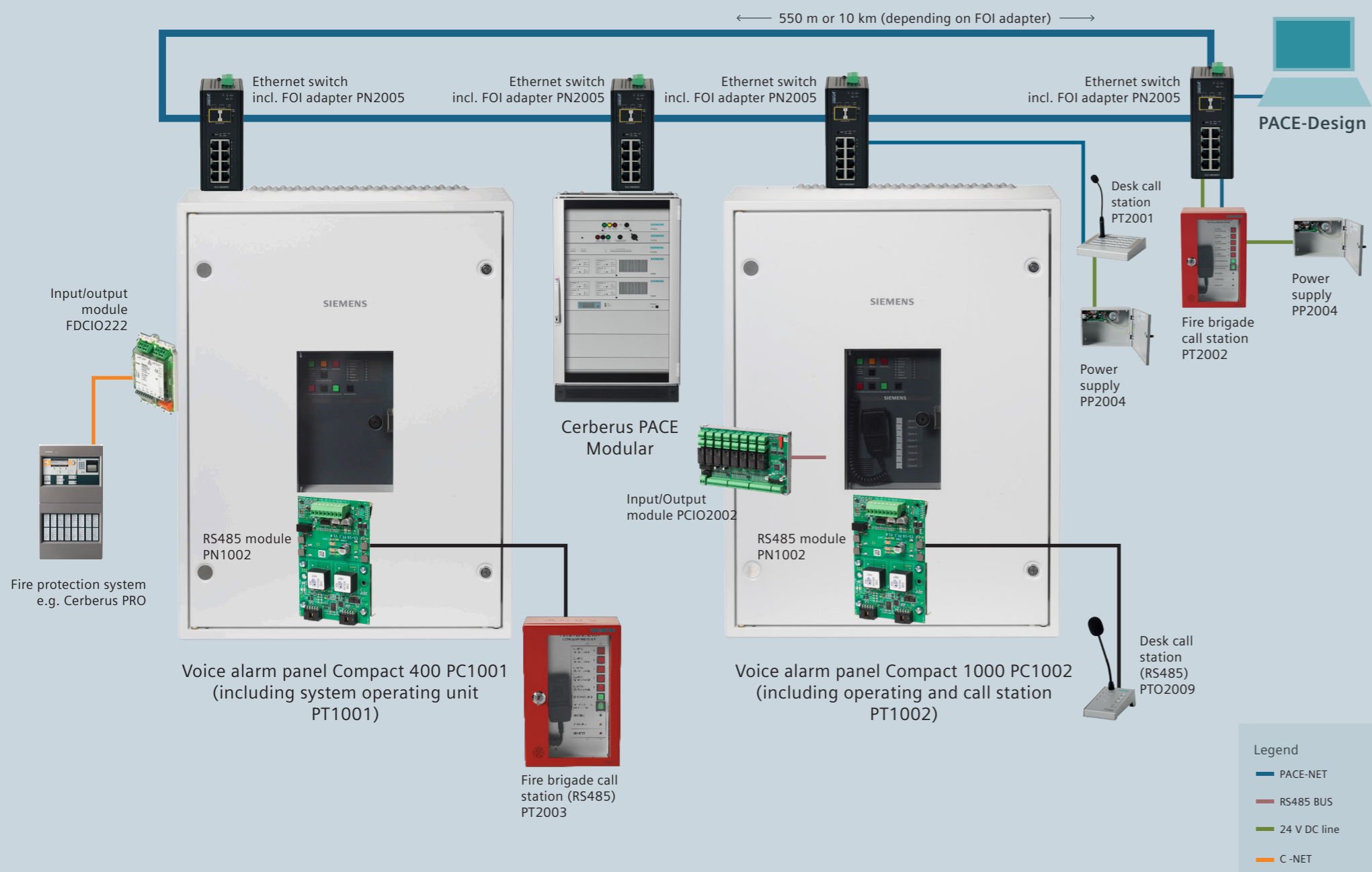
<h3>1</h3> <p>Collect the necessary information –List of all speaker lines (including wattage) –Line wiring (A, B or loop) –Single channel (one audio signal active at a time) or multi channel (2 and more audio signals active at a time) –Grouping of speaker lines –List of call stations</p>	<h3>2</h3> <p>Enter all information in the planning tool Our Excel based planning tool verifies the entries and proposes a proper system configuration.</p> 	<h3>3</h3> <p>Order your system By using the summary list out of the planning tool, the correct numbers of components can be ordered.</p> 
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Speaker line structures

Depending on the customer requirements and desired level of redundancy, several options are available for the speaker lines. From single to double stubs, trees, and loops with or without isolators, all major designs are possible. End-of-line modules ensure the speaker lines are functioning correctly, continuously checking their integrity and notifying should there be a fault.



Cerberus PACE system overview



Compact Panels

Name	Voice alarm panel Compact 400 PC1001-A3 Order no.: S54451-B200-A1	Voice alarm panel Compact 1000 PC1002-A3 Order no.: S54451-B201-A1
Cabinet	External dimensions: Height: 950 mm, Width: 710 mm, Depth: 305 mm	External dimensions: Height: 950 mm, Width: 710 mm, Depth: 305 mm
Cabinet assemblies	<ul style="list-style-type: none"> 2 pre-installed main amplifiers PV1001-A1 Power amplifier (1x 200W) Option slots for additional 4x PV1001-A1 Power amplifier (1x 200W) Option slots for up to 2x PN1001-A1 Ethernet switch (1x4) Option slots for 1x PN1002-A1 RS485 module (1 port) Pre-installed EN 54-4 power supply 	<ul style="list-style-type: none"> 2 pre-installed main amplifiers PV1002-A1 Power amplifier (1x 500W) Option slots for additional 4x PV1002-A1 Power amplifier (1x 500W) Option slots for up to 2x PN1001-A1 Ethernet switch (1x4) Option slots for 1x PN1002-A1 RS485 module (1 port) Pre-installed EN 54-4 power supply
Digital audio matrix board	<ul style="list-style-type: none"> 4 analog audio inputs and 4 analog audio outputs 16 speaker lines with jumper configuration 8 digital control inputs and 8 relay outputs 	<ul style="list-style-type: none"> 4 analog audio inputs and 4 analog audio outputs 16 speaker lines with jumper configuration 8 digital control inputs and 8 relay outputs
Power Amplifier	<ul style="list-style-type: none"> Power Amplifier (1x 200W) PV1001-A1 Order no. S54451-B204-A1 	<ul style="list-style-type: none"> Power Amplifier (1x 500W) PV1002-A1 Order no. S54451-B205-A1

Base components

Network switches

Ethernet switch (1x 8/2) PN2005 – Network switch with 8 Ethernet and 2 modular FO ports (optional ring topology) Order no.: S54451-B5-A1	Ethernet switch (1x4) PN1001 – 1x4 copper ports (RJ45, 10/100/1000Base-T) – Enables the user to create a fully duplicated network Order no.: S54451-B206-A1	FOI adapter PNA2002 – Switch FO module – Fiber optic interface single mode – Up to 10 km – LC connector Order no.: S54451-B38-A1	FOI adapter PNA2003 – Switch FO module – Fiber optic interface multi mode – Up to 550 m – LC connector Order no.: S54451-B41-A1	FOI adapter PNA2004 – Fiber optic interface multimode adapter needed to connect to PN2001 LC connector Order no.: S54451-B39-A1

Communication interface

RS485 module PN1002 – 1x RS485 'PACE-Bus' port – 2-way optical isolated 'PACE-Bus' (RS485) repeater – Provides controlled DC 24 V electrically isolated output – Monitoring of the DC 24 V line for ground faults – Plug-in module for Cerberus PACE Compact digital audio matrix boards Order no.: S54451-B207-A1

Operation units

System operating unit PT1001 – EN 54-16-compliant indicator panel for visual and acoustic status messages and controlling voice alarms – 8 predefined visual fault indicators – RS485 data transmission ('PACE-Bus') Order no.: S54451-B202-A1	Operating and call station PT1002 – EN 54-16-compliant indicator panel for visual & acoustic status messages & controlling voice alarms – 8 configurable/illuminated zone buttons – 8 predefined visual fault indicators – RS485 data transmission ('PACE-Bus') – Handheld microphone Order no.: S54451-B203-A1	Remote control panel PT2006 – For non-alarm applications only (no alerting) – Zone regulation in UP version – Programmable functions for the respective zone: volume control, preset selection, selection of audio input source Order no.: S54451-B13-A1

Batteries

Battery (12 V, 40 Ah) PA2006 Order no.: S54451-B68-A1	Battery (12V, 75 Ah) PA1001 Order no.: S54451-B208-A1	Battery (12 V, 100 Ah) PA1002 Order no.: S54451-B209-A1

Call stations

Desk call station (19 buttons) PT2001-A1 Order no.: S54451-B6-A1	Desk call station (RS485, 8+1) PT2009-A1 Order no.: S54451-B33-A1	Desk call station (analog, 3+1) PT2008-A1 Order no.: S54451-B32-A1	Fire brigade call station PT2002-A1 Order no.: S54451-B9-A1	Fire brigade call station (RS485) PT2003-A1 Order no.: S54451-B10-A1
Type	Alerting and standard call station	Alerting and standard call station	Standard call station for non alarm application	Alerting call station
Connection	Ethernet (max. 100 m)	RS485 (max. 500 m)	Analog (max. 150 m)	Ethernet (max. 100 m)
Interface	via Repeater PNA2007 (200 m) or Converter PN2007 (Up to 10 km)	PTO2008 interface (not included) to PC1001, PC1002	Interface (included) to PC1001, PC1002	via Repeater PNA2007 (200 m) or Converter PN2007 (Up to 10 km)
Buttons	19	8+1	3+1	6
Integrated loudspeaker	Yes	No	No	Yes
Extension and Accessories	<ul style="list-style-type: none"> Up to 4x extensions (each 24 buttons) PTO2001 Kaba/Nordic key extension Gooseneck microphone Mounting kit DCS (19/75 HE) 	<ul style="list-style-type: none"> Up to 3x extensions (each 8 buttons) PTO2006 	–	–
Power supply	External Power supply or from inside the cabinet via DC/DC converter PCA2011/2018 and ground fault monitoring PCA2001.			

Desk call station extension (24 buttons) PTO2001 – Max. 4 extensions per call station Order no.: S54451-B7-A1	Desk call station extensions Kaba PTO2002 Order no.: S54451-B8-A1 Nordic PTO2003 Order no.: S54451-B48-A1	Desk call station extension (RS485, 8) PTO2006 – For external housing or custom applications Order no.: S54451-B51-A1	Desk call station interface (RS485) PTO2008 – Needed to connect PT2003 or PT2009 to PC1001 or PC1002 Order no.: S54451-B58-A1	RS485 Isolator PNA2009 – Isolator for the RS485 Bus Order no.: S54451-B30-A1	Call stat interface (redundant) PTO2009 – Offers redundant power supply to the Network call stations Order no.: S54451-B59-A1	Camdenboss RJ45 Interface PNA2008 – RJ45 to screw clamp interface Order no.: S54451-B40-B1	Gooseneck microphone DCS PTO2004 – For PT2001 Order no.: S54451-B49-A1

Accessories

End-of-line (EOL) module

EOL3 (active) PCA2004 – Active end-of-line device for speaker lines – Up to 16 modules per amplifier – Use with PC1001 and PC1002 Order no.: S54451-B22-A1

Loop isolators

Loop isolator (100 V) PCA2005 – Active loop isolator device for speaker lines – Opens speaker line loop in case of short circuit – Up to 80 loop isolators per speaker line loop – Use with PC1001 and PC1002 Order no.: S54451-B53-A1	Loop isolator box PCA2013 Order no.: S54451-B54-A1

Input/output

Input/output extension (digital, 16) PCIO2001 – 16 additional digital inputs and outputs – 8 additional analog inputs – Connection via RS485 Order no.: S54451-B28-A1	Input/output module (digital, 16) PCIO2002 – 16 additional inputs and outputs – 8 additional analog inputs – 8 additional digital outputs with 2-pole relay contact: max 5A – Connection via RS485 Order no.: S54451-B79-A1	Output module (relay, 8) PCO2002 – 8 additional digital outputs with 2-pole relay contact: max 5A – Connection via RS485 Order no.: S54451-B80-A1	Output extension (relay, 8) PCO2003 – Extension for PCIO2002, PCO2002 – 8 additional digital outputs with 2-pole relay contact: max 5A – Connection via RS485 Order no.: S54451-B80-A1

Accessories

Power supply

Ground fault monitoring (24 V) PCA2001 – Monitoring of 24 V lines for ground fault, e.g. in case of remote call stations Order no.: S54451-B19-A1	DC/DC converter (24 V/50 W) PCA2011 – DC/DC converter for galvanic isolation of the 24 V line Order no.: S54451-B65-A1	DC/DC converter (24 V/100 W) PCA2018 – DC/DC converter for galvanic isolation of the 24 V line Order no.: S54451-B75-A1	Power supply (wall-mounted, 40 Ah) PP2004 – Output: 125 W @ 24 VDC – Wall-mounted remote power supply and charger – Monitoring: input/output, battery – Max. battery capacity: 24 V / 40 Ah Order no.: S54451-B75-A1

Audio file storage

2 GB SD card (Industrial) PCA2002 Order no.: S54451-B58-A1

Automatic volume control

Automatic volume control microphone PCA2007 – Supplied with phantom power via PCA2008 Order no.: S54451-B25-A1	Automatic volume control module PCA2008 – Connection via audio input 4 – Use with PC1001, PC1002 – Can connect up to 4 PCA2007 Order no.: S54451-B26-A1

Network

Repeater (CAT5) PNA2007 – Extend the length of one Ethernet connection from 100 m to 200 m – 100 Mbit/s Ethernet network expansion (more than 100 m) – 4x Ethernet port – 1x FO fiber: multimode, 1310 nm (SC connector) – 24 V input Order no.: S54451-B52-A1	Media converter (1x 1/1) PN2007 – 1 Ethernet port and 1 modular FO port Order no.: S54451-B44-A1