



**Novigo**  
Public Address and  
Controlled Evacuation  
Planning Tool

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BT\_00157\_EN (Status: 09/2018)  
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People spend about 90 percent of their time indoors.  
Improve the places where they spend their lives and you improve their lives.  
With our people and technology, our products and services, our aim is to create perfect places.  
For every stage of life.  
When building technology creates perfect places – that's ingenuity for life.  
#CreatingPerfectPlaces  
siemens.com/perfect-places

## Introducing Novigo



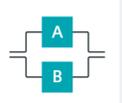
### The sound of safety

**Novigo – 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.

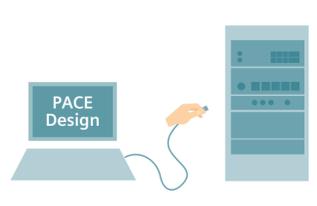
With Novigo, you can cover all your PA/VA needs with a single solution. It was designed with the specific convenience and emergency applications in modern businesses and organizations in mind, from ambient music to public speaking to guided evacuation. Thanks to its state-of-the-art modular and scalable system architecture, Novigo 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.

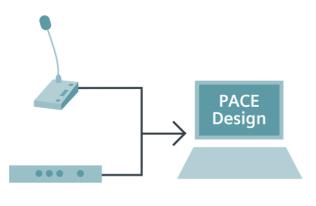
### Your benefits at a glance

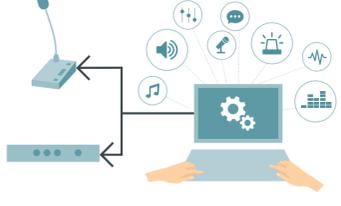
 <b>Beyond EN 54-16</b> Regulatory compliance and much more thanks to state-of-the-art technology	 <b>Multi-redundancy</b> Maximum system reliability with redundant components up to complete double structure	 <b>Real-time engineering</b> System configuration without restarts ensures business continuity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

## System configuration in three steps with PACE-Design

For the convenient setup and management of all components, Novigo comes with the dedicated configuration software PACE-Design. It provides an overview and control of all relevant functions. With PACE-Design, Novigo can be configured in a 3-step process. No system restarts are required throughout this process.

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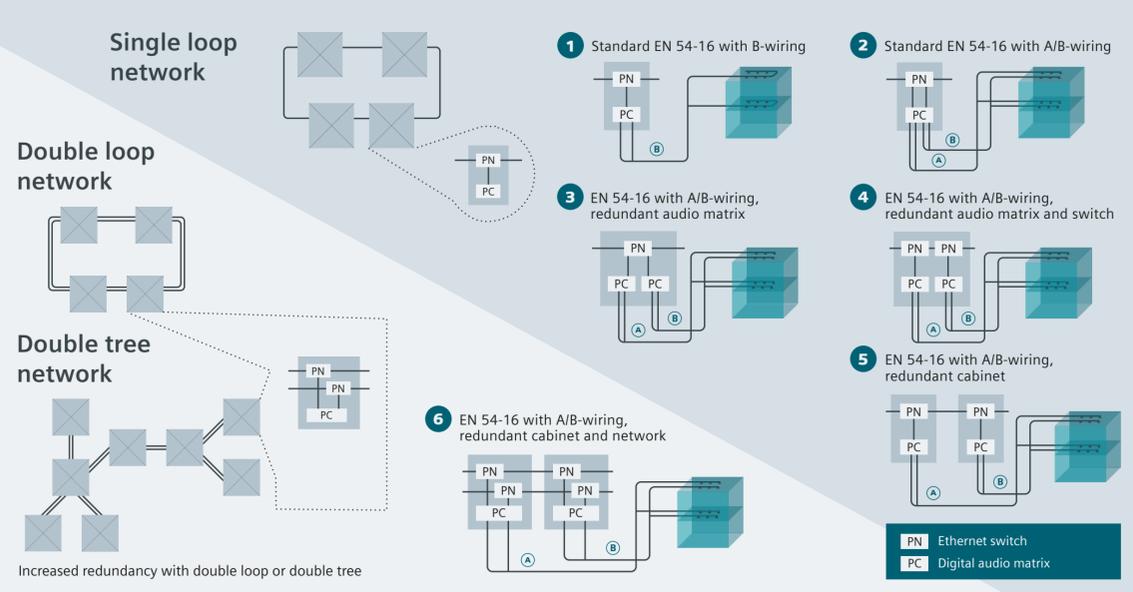
Connect a PC or laptop running PACE-Design to the desired network switch (PACE-NET) via Ethernet.
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All network elements will be automatically loaded into PACE-Design and appear immediately on the screen.
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Configure the system and the corresponding in- and outputs.

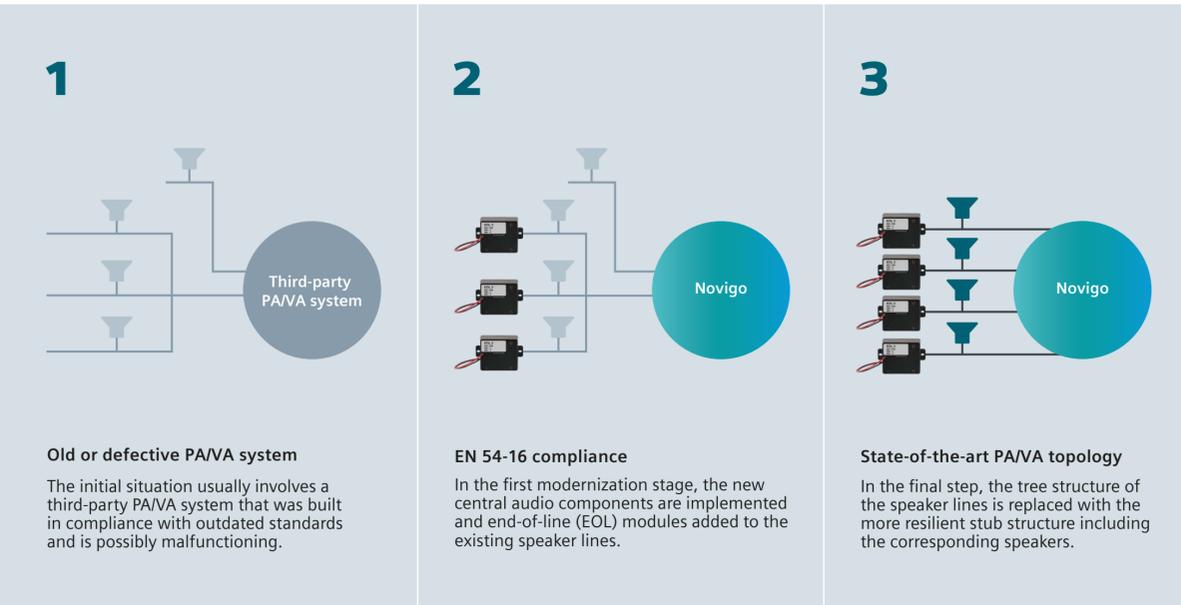
## Multi-redundancy

Maximum reliability is a key prerequisite for safety-critical systems including voice alarm systems. To ensure failure safety for all applications, Novigo 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.

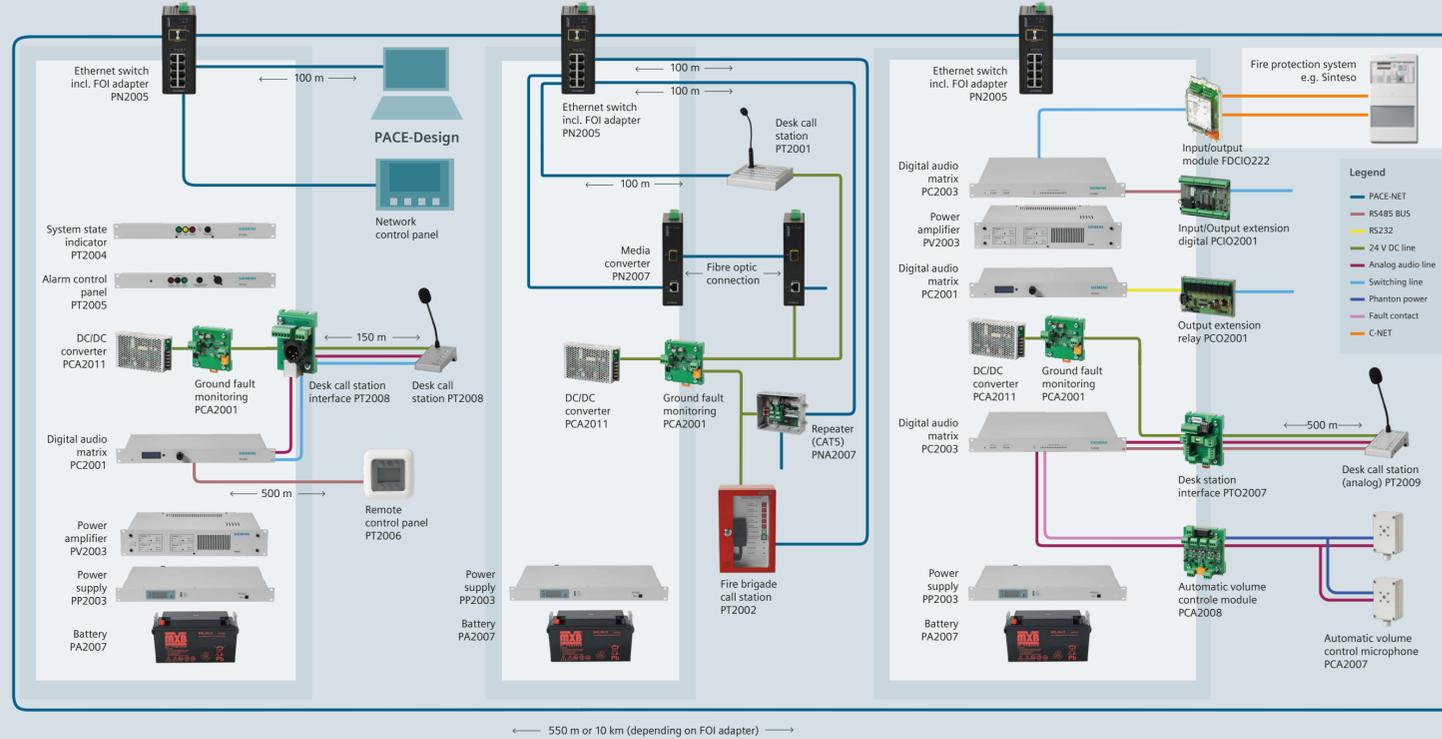


## Step-by-step modernization

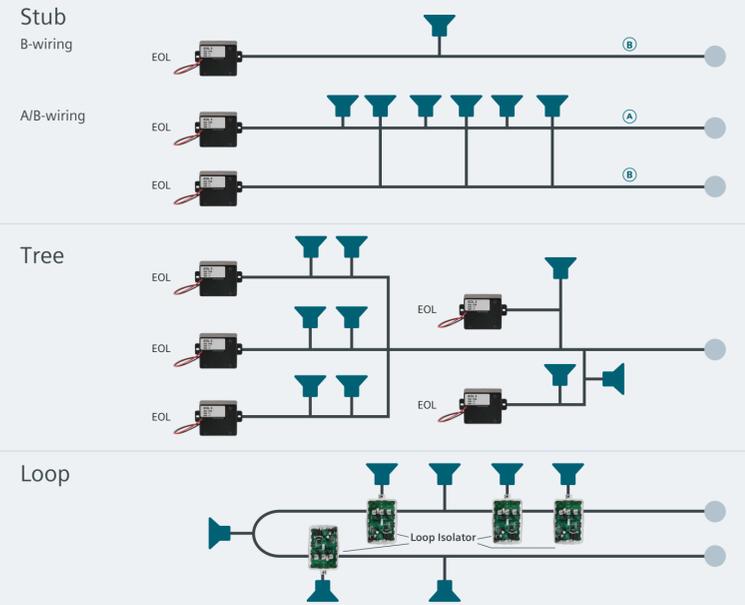
There is no need to start from scratch if you have an outdated or broken PA/VA system. Novigo offers step-by-step modernization, keeping legacy speaker line structures including speakers to achieve EN 54-16 compliance and modern functionality. The key is the installation of smart end-of-line (EOL) modules that identify any faults. In this way, you can safeguard past investments and stretch the new ones out over time.



# Novigo system overview



# Speaker line structure options



# Base components

## Call stations

<p><b>Desk call station (19 buttons) PT2001</b> Order no.: OFB:NOVIGO_2130</p> <ul style="list-style-type: none"> <li>- Alerting and business call station</li> <li>- Fully featured network system component</li> <li>- Gooseneck microphone</li> <li>- Microphone and line monitoring</li> <li>- Redundant cable connection</li> <li>- Integrated 2 GB memory card for texts</li> <li>- 2 analog mic/line inputs</li> <li>- Integrated loudspeaker</li> <li>- 2-row text display (no customer information)</li> <li>- 19 freely configurable keys</li> <li>- Power supply: 24 VDC / 200 mA</li> </ul>	<p><b>Desk call station extension (24 buttons) PTO2001</b> Order no.: OFB:NOVIGO_2131</p> <ul style="list-style-type: none"> <li>- Max. 4 extensions per call station</li> </ul>	<p><b>Desk call station extension (Kaba) PTO2001</b> Order no.: OFB:NOVIGO_2133</p>	<p><b>Desk call station (RS485, 8+1) PT2009</b> Order no.: OFB:NOVIGO_2125</p> <ul style="list-style-type: none"> <li>- Business call station for non-alarm applications only (EN 54-16 certificate pending)</li> <li>- 2 x RS485 interface / 500 m</li> <li>- Gooseneck microphone</li> <li>- Microphone and line monitoring</li> <li>- 8 freely configurable keys</li> <li>- PTO2008 needed to connect to PC2001 or PC2003</li> <li>- Available summer 2019</li> </ul>	<p><b>Desk call station extension (RS485, 8) PTO2006</b> Order no.: OFB:NOVIGO_2132</p> <ul style="list-style-type: none"> <li>- For external housing or custom applications</li> <li>- EN 54-16 certificate pending</li> <li>- Available summer 2019</li> </ul>	<p><b>Desk call station (analog, 3+1) PT2008</b> Order no.: OFB:NOVIGO_2127</p> <ul style="list-style-type: none"> <li>- Business call station for non-alarm applications only (no EN 54-16)</li> <li>- Gooseneck microphone</li> <li>- Includes interface needed to connect to PC2001 or PC2003</li> <li>- Available summer 2019</li> </ul>
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## Control panels

<p><b>System state indicator (door) PT2007</b> Order no.: OFB:NOVIGO_2142</p> <ul style="list-style-type: none"> <li>- Display: operation, fault, voice alarm</li> <li>- For external housing or custom applications</li> </ul>	<p><b>System state indicator (19") PT2004</b> Order no.: OFB:NOVIGO_2141</p> <ul style="list-style-type: none"> <li>- Display: operation, fault, voice alarm</li> </ul>	<p><b>Alarm control panel (19") PT2005</b> Order no.: OFB:NOVIGO_2143</p> <ul style="list-style-type: none"> <li>- Trigger keys: voice alarm, reset, mute</li> </ul>	<p><b>Remote control panel PT2006</b> Order no.: OFB:NOVIGO_2145</p> <ul style="list-style-type: none"> <li>- For non-alarm applications only (no EN 54-16)</li> <li>- Zone regulation in UP version</li> <li>- Programmable functions for the respective zone: volume control, preset selection, selection of audio input source (CD, tuner)</li> </ul>	<p><b>Fire brigade call station (AT) PT2002</b> Order no.: OFB:NOVIGO_2136</p> <ul style="list-style-type: none"> <li>- Monitored microphone</li> <li>- Memory for 6 text messages</li> <li>- Network connection via 2x Cat5</li> <li>- Power supply: 24 VDC / 260 mA</li> </ul>
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## Digital audio matrix

Shared properties:  
 8 digital inputs and outputs  
 1 interface (RS-232 or RS-485)  
 Slot for 2GB microSD flash card  
 Digital signal processing (DSP)  
 Fault relay

<p><b>Digital audio matrix (4/4/4) PC2001</b> Order no.: OFB:NOVIGO_2119</p> <ul style="list-style-type: none"> <li>- Zone amplification (4 zones)</li> <li>- 4 analog audio inputs and outputs</li> <li>- 8 analog measuring inputs</li> <li>- Power supply: 24 VDC / 370 mA</li> </ul>	<p><b>Digital audio matrix (0/4/4) PC2002</b> Order no.: OFB:NOVIGO_2120</p> <ul style="list-style-type: none"> <li>- Zone amplification (4 zones)</li> <li>- 4 analog audio outputs (no audio inputs)</li> <li>- 8 analog measuring inputs</li> <li>- Power supply: 24 VDC / 370 mA</li> </ul>	<p><b>Digital audio matrix (4/4/16) PC2003</b> Order no.: OFB:NOVIGO_2121</p> <ul style="list-style-type: none"> <li>- Zone and bulk amplification (16 zones)</li> <li>- 4 analog audio inputs and outputs</li> <li>- Power supply: 24 VDC / 500 mA (with pilot tone 5 A)</li> </ul>
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# Cabinets

Available options	ERA		Rittal
	60x60	80x80	80x80
Fixed frame small	PH2012 26 HU Order no.: OFB:NOVIGO_2115	PH2010 26 HU Order no.: OFB:NOVIGO_2113	PH2006 24 HU Order no.: OFB:NOVIGO_2109
Fixed frame large	PH2011 43 HU Order no.: OFB:NOVIGO_2114	PH2009 43 HU Order no.: OFB:NOVIGO_2112	PH2005 42 HU Order no.: OFB:NOVIGO_2108
Swivel frame small		PH2008 23 HU Order no.: OFB:NOVIGO_2111	PH2004 24 HU Order no.: OFB:NOVIGO_2107
Swivel frame large		PH2007 40 HU Order no.: OFB:NOVIGO_2110	PH2003 40 HU Order no.: OFB:NOVIGO_2106
Wall mount	PH2013 13 HU Available summer 2019		



Cabinet (swivel frame small)

Cabinet (swivel frame large)

Legend: HU = Height Unit

# Network and power components

## Network switches

<p><b>Ethernet switch (1x 8/2) PN2005</b> Order no.: OFB:NOVIGO_2125</p> <ul style="list-style-type: none"> <li>- Network switch with 8 Ethernet and 2 modular FO ports (optional ring topology)</li> </ul>	<p><b>FOI adapter PNA2002</b> Order no.: OFB:NOVIGO_2127</p> <ul style="list-style-type: none"> <li>- Switch FO module</li> <li>- Fiber optic interface single mode</li> <li>- Up to 10 km</li> <li>- LC connector</li> </ul>	<p><b>FOI adapter PNA2003</b> Order no.: OFB:NOVIGO_2129</p> <ul style="list-style-type: none"> <li>- Switch FO module</li> <li>- Fiber optic interface multi mode</li> <li>- Up to 550 m</li> <li>- LC connector</li> </ul>	<p><b>FOI adapter PNA2004</b> Order no.: OFB:NOVIGO_2128</p> <ul style="list-style-type: none"> <li>- Fiber optic interface multi mode adapter needed to connect to PN2001 LC connector</li> </ul>	<p><b>Ethernet switch (2x 4/2) PN2001</b> Order no.: OFB:NOVIGO_2123</p> <ul style="list-style-type: none"> <li>- Double switch with 8 Ethernet (2x 4 ports) and 2 FO ports</li> <li>- No spanning tree</li> </ul>	<p><b>Media converter (1x 1/1) PN2007</b> Order no.: OFB:NOVIGO_2126</p> <ul style="list-style-type: none"> <li>- 1 Ethernet port and 1 modular FO port</li> </ul>
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## Power supply

<p><b>Power supply (19", 320 Ah) PP2003</b> Order no.: OFB:NOVIGO_2149</p> <ul style="list-style-type: none"> <li>- Output: 400 W @ 24 VDC</li> <li>- 24 V outputs to amplifiers: 6x 30 A</li> <li>- 24 V output other: 2x 10 A</li> <li>- Monitoring: input/output, battery</li> <li>- Max. battery capacity: 24 V / 320 Ah</li> </ul>	<p><b>Power supply (wall-mounted, 40 Ah) PP2004</b> Order no.: OFB:NOVIGO_2150</p> <ul style="list-style-type: none"> <li>- Output: 125 W @ 24 VDC</li> <li>- Wall-mounted remote power supply and charger</li> <li>- Monitoring: input/output, battery</li> <li>- Max. battery capacity: 24 V / 40 Ah</li> </ul>
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## Power amplifiers

<p><b>Power amplifier PV2007</b> Order no.: OFB:NOVIGO_2146</p> <ul style="list-style-type: none"> <li>- Power supply: 230 VAC and 24 VDC (no fans or moving parts)</li> <li>- 1 x 250 W output power</li> </ul>	<p><b>Power amplifier PV2001</b> Order no.: OFB:NOVIGO_2147</p> <ul style="list-style-type: none"> <li>- Power supply: 230 VAC and 24 VDC (no fans or moving parts)</li> <li>- 2 x 250 W or 1 x 500 W (in bridge mode 100 V only) output power</li> </ul>	<p><b>Power amplifier PV2003</b> Order no.: OFB:NOVIGO_2148</p> <ul style="list-style-type: none"> <li>- Power supply: 230 VAC and 24 VDC (no fans or moving parts)</li> <li>- 4 x 150 W or 2 x 300 W (in bridge mode 100 V only) output power</li> </ul>
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## Batteries

<p><b>Battery (12 V, 40 Ah) PA2006</b> Order no.: OFB:NOVIGO_2151</p>	<p><b>Battery (12 V, 65 Ah) PA2007</b> Order no.: OFB:NOVIGO_2152</p>	<p><b>Battery (12 V, 100 Ah) PA2008</b> Order no.: OFB:NOVIGO_2153</p>	<p><b>Battery (12 V, 150 Ah) PA2009</b> Order no.: OFB:NOVIGO_2154</p>	<p><b>Battery tray (19") PHA2007</b> Order no.: OFB:NOVIGO_2155</p>
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# Accessories

## Power supply

<p><b>Ground fault monitoring (24 V) PCA2001</b> Order no.: OFB:NOVIGO_2157</p> <ul style="list-style-type: none"> <li>- Monitoring of 24 V lines for ground fault, e.g. in case of remote call stations</li> </ul>	<p><b>DC/DC converter (24 V / 50 W) PCA2011</b> Order no.: OFB:NOVIGO_2165</p> <ul style="list-style-type: none"> <li>- DC/DC converter for galvanic isolation of the 24 V line</li> </ul>
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## Call station

<p><b>Desk call station interface (8+1) PTO2008</b> Order no.: OFB:NOVIGO_2159</p> <ul style="list-style-type: none"> <li>- Needed to connect PT2009 to PC2001 or PC2003</li> </ul>	<p><b>Gooseneck microphone DCS PTO2004</b> Order no.: OFB:NOVIGO_2135</p>	<p><b>Mounting kit DCS (19"/5 HU) PTO2005</b> Order no.: OFB:NOVIGO_2132</p>
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## Audio file storage

<p><b>2 GB SD card (industrial) PCA2002</b> Order no.: OFB:NOVIGO_2158</p>
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## Automatic volume control

<p><b>Automatic volume control microphone PCA2007</b> Order no.: OFB:NOVIGO_2164</p> <ul style="list-style-type: none"> <li>- Supplied with phantom power via PCA2008</li> </ul>	<p><b>Automatic volume control module PCA2008</b> Order no.: OFB:NOVIGO_2163</p> <ul style="list-style-type: none"> <li>- Connection via audio input 4</li> <li>- Use with PC2001 and PC2003</li> <li>- Can connect up to 4 PCA2007</li> </ul>
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## Input/output

<p><b>Input/output extension digital (16) PCO2001</b> Order no.: OFB:NOVIGO_2166</p> <ul style="list-style-type: none"> <li>- 16 additional digital inputs and outputs</li> <li>- 8 analog inputs</li> <li>- Connection via RS485</li> <li>- Use with PC2001, PC2002 and PC2003</li> </ul>	<p><b>Output extension relay (8) PCO2001</b> Order no.: OFB:NOVIGO_2167</p> <ul style="list-style-type: none"> <li>- 8 additional relay outputs</li> <li>- Connection via RS232</li> <li>- Use with PC2001, PC2002 and PC2003</li> <li>- Relay contact: Max. 7 A</li> </ul>
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## Network

<p><b>Repeater (CAT5) PCO2007</b> Order no.: OFB:NOVIGO_2124</p> <ul style="list-style-type: none"> <li>- Extend the length of one Ethernet connection from 100 m to 200 m</li> <li>- 100 Mbit/s Ethernet network expansion (more than 100 m)</li> <li>- 4x Ethernet port</li> <li>- 1x FO fiber: multimode, 1310 nm (SC connector)</li> <li>- 24 V input</li> </ul>
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## End-of-line (EOL) module

<p><b>EOL3 (active) PCA2004</b> Order no.: OFB:NOVIGO_2159</p> <ul style="list-style-type: none"> <li>- Active end-of-line device for speaker lines</li> <li>- Up to 16 modules per amplifier</li> <li>- Use with PC2001, PC2002 and PC2003</li> </ul>
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## Loop isolators

<p><b>Loop isolator (100 V) PCA2005</b> Order no.: OFB:NOVIGO_2160</p> <ul style="list-style-type: none"> <li>- Active loop isolator device for speaker lines</li> <li>- Opens speaker line loop in case of short circuit</li> <li>- Up to 80 loop isolators per speaker line loop</li> <li>- Only PC2003 supports loop isolators</li> </ul>	<p><b>Loop isolator LED PCA2012</b> Order no.: OFB:NOVIGO_2162</p>	<p><b>Loop isolator box PCA2013</b> Order no.: OFB:NOVIGO_2161</p>
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