

Products for 2016

## **VAPA System VARIODYN D1**



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Dear Business Partner,

...we'd like to point out that this catalog is also available as an App for iOS tablets.

**The new Notification e-Catalog** provides following crucial advantages:



- Always up-to-date
- Online and offline access to the whole product portfolio
- Managing individual project lists
- Generating bill of material which can be sent via email in CSV-format
- Comprehensive, comfortable search function

Due to so many advantages we'd like to invest more in further development steps for e-Catalog and are currently developing an Android version which will be available shortly. Based on this, we have decided to print the catalog only in black and white in order to re-invest the cost savings into the e-Catalog. At the same time, we take an important step in the direction of "environmental-friendly behavior" by minimizing print, and hope we can count on your support. We would greatly appreciate if you also opt for free e-Catalog in the future.

The e-Catalog as App is available in the iTunes Store. You can find more information on the e-Catalog in the protected area of [www.esser-systems.com](http://www.esser-systems.com).

### Honeywell Notification InfoPoint

Die Honeywell Notification InfoPoint App informs you about new products and technical updates from our product line „Emergency Lighting and Voice Alarm“. Whether you need a brochure, product information/data sheet, video or catalog – within the new App you can find all the required information quickly and conveniently from any iOS device. Information on App-Registration is provided in the protected area on [www.esser-systems.com](http://www.esser-systems.com). With your login information (user name and password) you have access to all additional content once activation is complete.



### Our Website

Here you can download for example, price lists in various formats and you can have access to information services "info online" which can be subscribed to with your email address. This way you are always up-to-date and will receive latest news in a timely manner and first-hand.

We are looking forward to further successful cooperation and business!

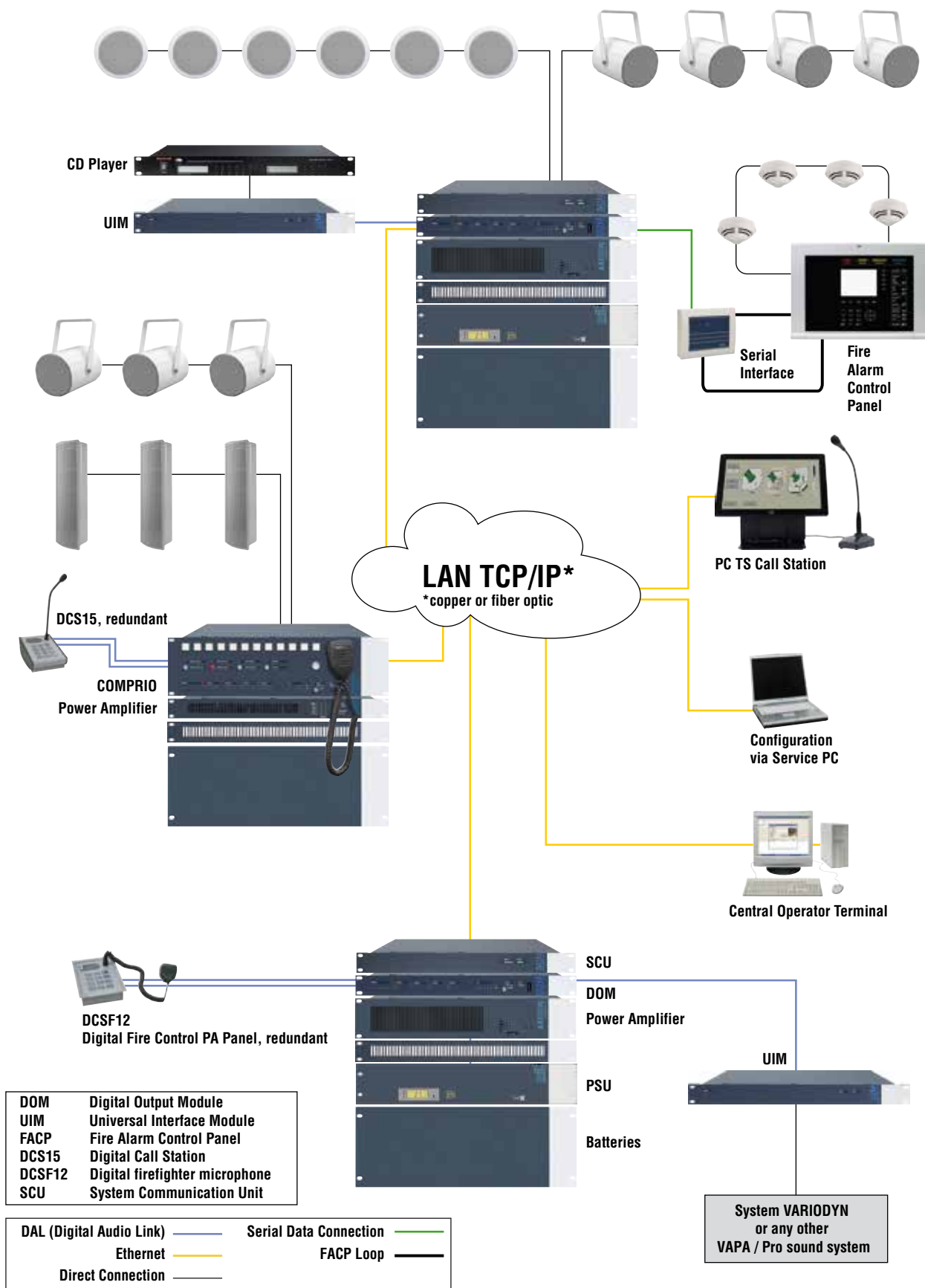
Your Honeywell Notification Team



## VARIODYN D1

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# VARIODYN D1



Dear Business Partners,

As always, this new updated edition of our VARIODYN D1 Comprio product catalog will provide you a clear overview of our voice alarm and public address portfolio.

In comparison to the previous edition, this edition has been expanded and brought up to date. Since the last edition, our VARIODYN D1 product family gain some new products and we are able to provide improved features on the exiting products.

Clearly the highlight is our new firmware for the VARIODYN D1 DOM. This allows you now to design VAPA systems with up to 9600 loudspeaker zones and this without any restrictions. With the firmware comes also the option to connect call stations with a second cable. So it is now possible to do the cable connection to the call station in a redundant way. Also we include cutting edge boolean algebra like "and" and "or" function to program advance logical dependency in the VARIODYN D1 Designer, our graphical configuration tool. Speaking of the VARIODYN D1 Designer, we also provide some improved functions and features here. We suggest to use always the latest edition for your projects.

Another highlight is still our VARIODYN D1 Comprio system, which is already a great success in smaller voice alarm and public address projects like hotels or schools. As usual, also the VARIODYN D1 Comprio system comes with all great benefits of VARIODYN D1 without any compromise in function or quality. Functions like equalizing, delay, compressor and limiter or automatic volume control are as well onboard as features like 1 hour audio memory, 4 port Ethernet switch ,configurable buttons and signaling LED's or a monitored hand held microphone.

One more highlight is the new 4XD250B amplifier, like the 4XD125B, with build in power supply and battery management for uninterruptible power supply (UPS). This means that in a project where a UPS is needed, this amplifier replace a separate UPS - for the amplifier itself, as well for one VARIODYN D1 Comprio system or a DOM. A perfect solution for distributed systems such need in high risers, railways, metros or campus applications.

Our management system PAMMI is now also in a new version available and supports now also a microphone on the PC PAMMI runs on.

The catalog includes now even more new EN54-24 certified loudspeakers as the last time.

Please also refer to the information we have provided online. In the protected customer area, there are a wide range of resources relating to system setup and planning available for download. Finally, we would like to mention that it is always a good idea to view the areas of fire detection technology and voice alarms as a whole. For that reason we also provide a serial interfaces to ESSER, Notifier or GENT FACP with great benefit in security and service. This is becoming increasingly important, not only due to the new regulations. Market and customer focus as well as competency and a spirit of innovation are our principal objectives. At the same time, they form the guiding principles that we consistently implement in developing our products with you as our partner, while taking your requirements into account. Take the opportunity to communicate with us and share your suggestions and requirements so we can shape the future together in an increasingly difficult market environment. We are looking forward to a continued successful collaboration with you.

583361.22

Digital Output Module DOM4-8



## Features

- One hour audio memory (flash)
- 4 channel parametric equalizer, compressor/limiter and delay (up to 9.9 seconds)
- Loudspeaker LOOP support
- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- VdS approval: G 210122
- All functions of an alarm and evacuation system
- Networkable via Ethernet, build in 4 port switch
- Permanent monitoring of all functions
- Automatic and dynamic switching of back up amplifier
- Automatic volume control (AVC) even also during announcements
- Remote monitoring and configuration via network
- 24 V DC power supply

**VdS approval: G 210122**

**Part of EN 54-16 approval**

DOM (Digital Output Module) is the central control element of VARIODYN D1. It has interfaces to all input/output assemblies, administers, and monitors the loudspeaker circuits. For voice alarm systems and electro-acoustic emergency warning system per EN 60849 and EN 50849. Any complex system configuration can be implemented through the networking of multiple DOMs via Ethernet. All power amplifiers are permanently monitored. In case a power amplifier is faulty, it can be replaced dynamically by a backup amplifier or a backup amplifier channel. The switchover is done automatically. The loudspeaker lines are permanently monitored for short circuit, ground fault, failure as well as impedance deviation. Faulty loudspeaker zones are separated in a non-reacting manner. A DOM contains storage capacity for preset announcements, which can be used for alarm texts and signals (escape alarm, caution signal) and warning signals (gongs). The volume of each source and each amplifier channel can be controlled. Additional filters like parametric equalizer, high-and low pass filter are available. All errors are recognized, displayed and recorded within few seconds meeting the standards. For special applications like e.g. tunnel, a delay in all four channels can be programmed up to 9.9 sec.

With the new Firmware it is now possible to connect up to 400 units and get advantage of the new logical functions which makes it much easier and efficient to configure the DOM.

The control unit DOM4-8 is equipped with 4 independent amplifier channels in order to operate 8 loudspeaker areas or 4 loudspeaker circuits in VARIODYN D1 loop technology. There is also the option of mixing loop and spur technology with a DOM.

## Technical Data

### Audio output:

Output type	symmetrically
Nominal level	0 dBu
max. Outputlevel	< 6 dBu
Transmission range	20 ... 20000 Hz
Harmonic distortion at nominal level	< 0.03 % @ 1 kHz
Signal/Noise ratio	> 70 dB/75 dB (A)
Output impedance	> 5 kΩ, < 500 pF

### Sensor Input (AVC):

Input type	symmetrically
Nominal level	-51 dBu
Nominal level for emergency telephone station	0 dBu
Transmission range	100 ... 8000 Hz
Harmonic distortion at nominal level	< 0.02 % @ 1 kHz
Signal/Noise ratio	> 60 dB/65 dB (A)
Load impedance	typ. 200 Ω

### Common technical data:

Rated voltage	90 .. 264 V AC
Rated frequency	47 ... 63 Hz
Emergency power supply	24 V DC
Power consumption	40 / 70 W (@230 V, w/o / with 4 x DAL)
Contact load relay	100 V DC/1 A
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non-condensing)
Weight	approx. 5.7 kg
Dimensions	W: 483 mm H: 44 mm D: 345 mm (1 HU, 19")
Declaration of Performance	DoP-20997130701



The DOM components are delivered "neutrally without branding." Please use a ventilation panel Part No. 583708.HO for every DOM.

## Accessories

583451.21	Cable for cabinet rear panel DOM4-8
583486	Patch cable CAT5, 1 m yellow (Ethernet)
583487	Patch cable CAT5, 2 m yellow (Ethernet)
583488	Patch cable CAT5, 3 m yellow (Ethernet)
583496	End-of-line module (EOL)
581316	Microphone, for AVC
583703	Mounting set 1
583342	Loop Isolator Module
583708.HO	Ventilation panel 1 HU with Honeywell logo

583362.22

Digital Output Module DOM4-24



## Features

- Authorized in compliance with EN 54-16
- Compliant with IEC 60849
- All the functions of an alarm and evacuation system in a 19" module (DOM)
- Networkable via Ethernet
- Permanent monitoring of all functionally relevant system components
- Automatic and dynamic switching to redundant emergency amplifiers
- Automatic volume control (AVC), also during announcements
- Remote monitoring and configuration via the network
- 24 V DC emergency power supply
- Spur and loop technologies in "VARIODYN D1 Loop technology"
- Connection to a NTP server via Ethernet is possible
- Speech or audio memory up to 1 h

**VdS approval: G 210122**

**Part of EN 54-16 approval**

The DOM is the central control element of the VARIODYN D1. It interfaces with all input and output modules, and it manages and monitors the loudspeaker circuits. For voice alarm systems and for electro-acoustic emergency warning systems according to EN 60849 and EN50849. The connection of multiple DOMs via Ethernet allows the realization of complex system configurations. All output amplifiers are permanently monitored. In the event of a faulty output, an emergency amplifier can dynamically replace it. The switchover is done automatically. The loudspeaker lines are continuously monitored for short circuit, fault to ground, interruptions, as well as impedance deviation. Defective loudspeaker zones are separated in a non-reactive manner. A DOM contains storage capacities for prerecorded audio messages that can be used for alarm texts and signals (evacuation alarm, all-clear signal) and caution signals (gongs). The volume of every source and every amplifier channel can be regulated. Additional filters such as parametric equalizers, high-pass and low-pass filters and delays are also available. Any errors are registered within a timeframe of only very few seconds in conformity with the standard, displayed, and logged. For special applications like e.g. tunnel, a delay in all for channels can be programmed up to 9.9 sec. The DOM4-24 control unit features 4 independent amplifier channels, through which it can operate a total of 24 loudspeaker zones or 4 loudspeaker rings in VARIODYN D1 loop technology. There is also a possibility to combine spur and loop technologies in a DOM.

## Technical Data

### Audio output:

Output type	symmetrically
Nominal level	0 dBu
max. Outputlevel	< 6 dBu
Transmission range	20 ... 20000 Hz
Harmonic distortion at nominal level	< 0.03 % @ 1 kHz
Signal/Noise ratio	> 70 dB/75 dB (A)
Output impedance	> 5 kΩ, < 500 pF

### Sensor Input (AVC):

Input type	symmetrically
Nominal level	-51 dBu
Nominal level for emergency telephone station	0 dBu
Transmission range	100 ... 8000 Hz
Harmonic distortion at nominal level	< 0.02 % @ 1 kHz
Signal/Noise ratio	> 60 dB/65 dB (A)
Load impedance	typ. 200 Ω

### Common technical data:

Rated voltage	90 ... 264 V AC
Rated frequency	47 ... 63 Hz
Emergency power supply	24 V DC
Power consumption	50 / 80 W (@230 V, w/o / with 4 x DAL)
Contact load relay	100 V DC/1 A
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non-condensing)
Weight	approx. 6.8 kg
Dimensions	W: 483 mm H: 44 mm D: 349 mm (1 HU, 19")
Declaration of Performance	DoP-20997130701



The DOM components are delivered "neutrally without branding." Please use a ventilation panel Part No. 583708.HO for every DOM.

## Accessories

583452.21	Cable for cabinet rear panel DOM4-24
583486	Patch cable CAT5, 1 m yellow (Ethernet)
583487	Patch cable CAT5, 2 m yellow (Ethernet)
583488	Patch cable CAT5, 3 m yellow (Ethernet)
583496	End-of-line module (EOL)
581316	Microphone, for AVC
583703	Mounting set 1
583342	Loop Isolator Module
583708.HO	Ventilation panel 1 HU with Honeywell logo

## VARIODYN D1 Comprio

Our VARIODYN D1 Voice Alarm System has grown, so that in the future it can be even better, even less expensive, and even more efficient in small and medium-sized properties. The compact Comprio control unit is available in different variants, and together with the new 4XD125B and 4XD250B four-channel amplifiers, it represents a complete voice alarm system for small and medium-sized properties.

The 4XD125B and 4XD250B four-channel amplifiers also includes a battery charger for the emergency power supply of this small system. The new amplifiers also provide the option to use one channel as backup amplifier for the other three channels. In this case also a separate backup amplifier is not needed anymore. The components are designed for installation in a 19" housing or upright cabinet. We have provided special compact housing variants with 12 HU each. If desired, these components can also be housed in the larger housings and upright cabinets of our VARIODYN D1 line together with the other DOM and amplifiers.

The new components are integrated in the product approval of the VARIODYN D1 Voice Alarm System.

Of course, all peripheral components and accessory parts of the VARIODYN D1, such as call stations, housing, converter, cable, etc., can also be used with these new components.

The programming is also still carried out easily and conveniently using the Designer software tool. An expert can jump into the VARIODYN D1 at full speed without any additional effort and use the new components with no problems. That saves time, money, warehouse space, and minimizes additional training costs.

If desired, the Part No. 583308 handheld microphone can be plugged directly into the Comprio.

### Comprio system (4 variants)

583940 VARIODYN D1 Comprio 4-8 (standalone without ethernet)

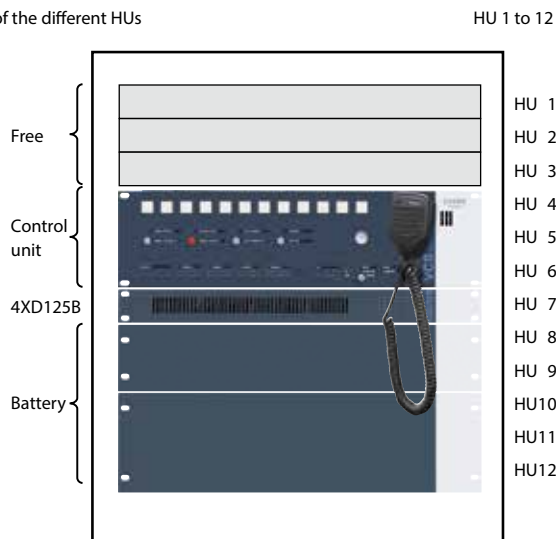
583941 VARIODYN D1 Comprio 4-24 (standalone without ethernet)

583944 VARIODYN D1 Comprio 4-8 net (network variant)

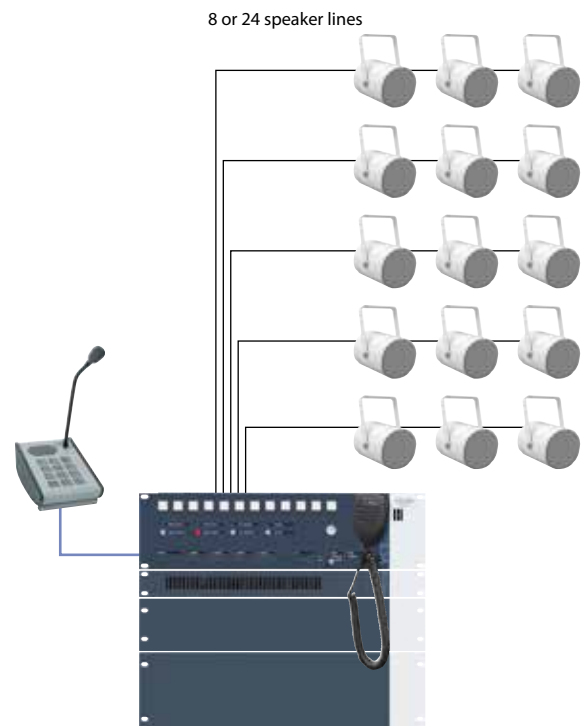
583945 VARIODYN D1 Comprio 4-24 net (network variant)

### Rack mounted system (12 HUs)

Use of the different HUs



### System overview



583940

VARIODYN D1 Comprio 4-8 (Stand alone without Ethernet)



## Features

- One hour audio memory (flash)
- 4 channel parametric equalizer, compressor/limiter and delay (up to 9.9 seconds)
- Loudspeaker LOOP support
- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- All functions of an alarm and evacuation system
- Networkable via Ethernet, build in 4 port switch
- Permanent monitoring of all functions
- Automatic and dynamic switching of back up amplifier
- Automatic volume control (AVC) even also during announcements
- Two monitored 24 V DC power supply inputs
- 12 contact inputs (8 of which can be monitored)
- 8 relay outputs
- 3 audio-line inputs
- 3 DAL port
- 1 TWI port

## Part of EN 54-16 approval

Comprio is the central controlling unit of VARIODYN D1 system for small and mid-sized objects. The Comprio, together with the 4XD125B and 4XD250B four-channel amplifiers, forms a voice alarm system for projects such as schools, smaller hotels, etc. The emergency power supply is built in to the 4XD125B and 4XD250B four-channel amplifiers. For voice alarm systems and electro-acoustic emergency warning systems compliant with EN 60849 or EN50849. All power amplifiers are continuously monitored. In case a power amplifier is faulty, it can be replaced dynamically by a backup amplifier. If you use 4XD125B or 4XD250B amplifiers one channel could be the backup amplifier. Means you can use three channels to power loudspeaker lines and one channel to back up the other three.

The switching takes place automatically via Comprio. The loudspeaker lines are permanently monitored for short circuit, ground fault, failure as well as impedance deviation. Faulty loudspeaker zones are separated in a non-reacting manner. Comprio contains storage capacity for pre-stored messages, which can be used for alarm texts and signals (evacuation alarm, all-clear signal) and caution signals (gong). The volume of each source and each amplifier channel can be controlled. Additional filters like parametric equalizer, high-and low pass filter as well a delay is available with up to 9,9 sec. All errors are recognized, displayed and recorded within few seconds meeting the standards. The Comprio can control four independent amplifier channels to operate a total of eight loudspeaker zones or four loudspeaker rings in VARIODYN D1 loop technology. It is also possible to mix spur and loop technology in a DOM. The Comprio also has 12 contact inputs, 8 of which can be programmed to be monitored, as well as 8 potential-free relay outputs, one audio-line output, up to 3 audio-line inputs and/or up to 3 microphone inputs, 3 DAL connections and one TWI connection.

This variant is a "stand-alone" unit. If Ethernet networking is desired to connect with other Comprio or DOM, this can be implemented with the network variant Part No 583944.

When ordering, we recommend looking at our very attractively priced product packages.

Additional accessories like the handheld microphone, housing, cable, call station etc. must be separately ordered.



The DOM components are delivered neutrally without branding. Please use a ventilation panel Part No. 583708.HO for every DOM.

## Accessories

583708.HO	Ventilation panel 1 HU with Honeywell logo
583308	Handheld microphone for VARIODYN D1 Comprio
583441.10	Backup cable RC41 VARIODYN D1
584913	Rack for Comprio
584913.R	Rack for Comprio (mounting included)
583414	Cable set 24 V DC-VARIODYN D1 Comprio / 4XD125B or 4XD250B
581340	Periphery clamp for top-hat rail
583466	Patch cable CAT5, 0.5 m gray (periphery)
583483	Patch cable CAT5, 3 m blue (DAL)
583451.21	Cable for cabinet rear panel DOM4-8
583477.21	Output cable 2 amplifier DOM
583491	Input cable DOM amplifier, 0.5 m green
583496	End-of-line module (EOL)
581310	Microphone, for AVC
583703	Mounting set 1
583332	Overvoltage protection for UIM contacts

583941



## Features

- One hour audio memory (flash)
- 4 channel parametric equalizer, compressor/limiter and delay (up to 9.9 seconds)
- Loudspeaker LOOP support
- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- All functions of an alarm and evacuation system
- Networkable via Ethernet, build in 4 port switch
- Permanent monitoring of all functions
- Automatic and dynamic switching of back up amplifier
- Automatic volume control (AVC) even also during announcements
- Two monitored 24 V DC power supply inputs
- 12 contact inputs (8 of which can be monitored)
- 8 relay outputs
- 3 audio-line inputs
- 3 DAL port
- 1 TWI port

**VARIODYN D1 Comprio 4-24 (Stand alone without Ethernet)**

## Part of EN 54-16 approval

Comprio is the central controlling unit of VARIODYN D1 system for small and mid-sized objects. The Comprio, together with the 4XD125B and 4XD250B four-channel amplifiers, forms a voice alarm system for projects such as schools, smaller hotels, etc. The emergency power supply is built in to the 4XD125B and 4XD250B four-channel amplifiers. For voice alarm systems and electro-acoustic emergency warning systems compliant with EN 60849 or EN50849. All power amplifiers are continuously monitored. In case a power amplifier is faulty, it can be replaced dynamically by a backup amplifier. If you use 4XD125B or 4XD250B amplifiers one channel could be the backup amplifier. Means you can use three channels to power loudspeaker lines and one channel to back up the other three.

The switching takes place automatically via Comprio. The loudspeaker lines are permanently monitored for short circuit, ground fault, failure as well as impedance deviation. Faulty loudspeaker zones are separated in a non-reacting manner. Comprio contains storage capacity for pre-stored messages, which can be used for alarm texts and signals (evacuation alarm, all-clear signal) and caution signals (gong). The volume of each source and each amplifier channel can be controlled. Additional filters like parametric equalizer, high-and low pass filter as well a delay is available with up to 9,9 sec. All errors are recognized, displayed and recorded within few seconds meeting the standards. The Comprio can control four independent amplifier channels to operate a total of 24 loudspeaker zones or four loudspeaker rings in VARIODYN D1 loop technology. It is also possible to mix spur and loop technology in a DOM. The Comprio also has 12 contact inputs, 8 of which can be programmed to be monitored, as well as 8 potential-free relay outputs, one audio-line output, up to 3 audio-line inputs and/or up to 3 microphone inputs, 3 DAL connections and one TWI connection.

This variant is a "stand-alone" unit. If Ethernet networking is desired to connect with other Comprio or DOM, this can be implemented with the network variant Part No 583944.

When ordering, we recommend looking at our very attractively priced product packages.

Additional accessories like the handheld microphone, housing, cable, call station etc. must be separately ordered.



The DOM components are delivered without branding. Please use a ventilation panel Part No. 583708. HO for every DOM.

## Accessories

583708.HO	Ventilation panel 1 HU with Honeywell logo
583308	Handheld microphone for VARIODYN D1 Comprio
583441.10	Backup cable RC41 VARIODYN D1
584913	Rack for Comprio
584913.R	Rack for Comprio (mounting included)
583414	Cable set 24 V DC-VARIODYN D1 Comprio / 4XD125B
581340	Periphery clamp for top-hat rail
583466	Patch cable CAT5, 0.5 m gray (periphery)
583483	Patch cable CAT5, 3 m blue (DAL)
583451.21	Cable for cabinet rear panel DOM4-8
583477.21	Output cable 2 amplifier DOM
583491	Input cable DOM amplifier, 0.5 m green
583496	End-of-line module (EOL)
581316	Microphone, for AVC
583703	Mounting set 1
583332	Overvoltage protection for UIM contacts

583946



**Product package Comprio 4-8 and amplifier 4XD125B**

## Part of EN 54-16 approval

Product package for a small VA/PA stand-alone system for small and medium-sized objects at a very low price, consisting of a Comprio 4-8 (Part No. 583940) and a four-channel amplifier 4XD125B (Part No. 580242) with integrated emergency power supply.

Additional accessories such as enclosures, cables, call stations, etc. must be ordered separately.

583947

**Product package Comprio 4-24 and amplifier 4XD125B**



## Part of EN 54-16 approval

Product package for a small VA/PA stand-alone system for small and medium-sized objects at a very low price, consisting of a Comprio 4-24 (Part No. 583941) and a four-channel amplifier 4XD125B (Part No. 580242) with integrated emergency power supply.

Additional accessories such as enclosures, cables, call stations, etc. must be ordered separately.

583948

**Product package Comprio 4-8 and amplifier 4XD250B**

**NEW**



## Part of the EN 54-16 approval

Product package for a small VA/PA stand-alone system for small and medium-sized objects at a very low price, consisting of a Comprio 4-8 (Part No. 583940) and a four-channel amplifier 4XD250B (Part No. 580243) with integrated emergency power supply.

Additional accessories such as enclosures, cables, call stations, etc. must be ordered separately.

583949

**Product package Comprio 4-24 and amplifier 4XD250B**

**NEW**



## Part of the EN 54-16 approval

Product package for a small VA/PA stand-alone system for small and medium-sized objects at a very low price, consisting of a Comprio 4-24 (Part No. 583941) and a four-channel amplifier 4XD250B (Part No. 580243) with integrated emergency power supply.

Additional accessories such as enclosures, cables, call stations, etc. must be ordered separately.

583944

VARIODYN D1 Comprio 4-8 net (with Ethernet)



## Features

- One hour audio memory (flash)
- 4 channel parametric equalizer, compressor/limiter and delay (up to 9.9 seconds)
- Loudspeaker LOOP support
- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- All functions of an alarm and evacuation system
- Networkable via Ethernet, build in 4 port switch
- Permanent monitoring of all functions
- Automatic and dynamic switching of back up amplifier
- Automatic volume control (AVC) even also during announcements
- Remote monitoring and configuration via network
- Two monitored 24 V DC power supply inputs
- 12 contact inputs (8 of which can be monitored)
- 8 relay outputs
- 3 audio-line inputs
- 3 DAL port
- 1 TWI port

## Part of EN 54-16 approval

The Comprio is the central control panel of a VARIODYN D1 system for small and medium-sized objects. Together with the 4XD125B four-channel amplifier, the Comprio is a complete voice alarm system for projects such as schools, small hotels, etc. The emergency power supply is integrated into the 4XD125B four-channel amplifier. For voice alarm systems according to DIN VDE 0833-4 and for electro-acoustic emergency warning systems according to EN 60849.

All output amplifiers are permanently monitored. In the event of a faulty output, an emergency amplifier can dynamically replace it. Switching is done automatically via the Comprio.

The loudspeaker lines are continuously monitored for short circuit, fault to ground, interruptions, as well as impedance deviation. Defective loudspeaker zones are separated in a non-reactive manner.

A Comprio contains storage capacities for prerecorded audio messages that can be used for alarm texts and signals (evacuation alarm, all-clear signal) and caution signals (gongs). The volume of every source and every amplifier channel can be regulated. Additional filters such as parametric equalizers, high-pass and low-pass filters and delays are also available. Any errors are registered within a timeframe of only very few seconds in conformity with the standard, displayed, and logged. For special applications such as tunnel, delays of up to 9.9 seconds can be programmed.

The Comprio control unit features four independent amplifier channels, through which it can operate a total of 8 loudspeaker zones. The Comprio further features 12 contact inputs, of which eight can be programmed with supervision, 8 potential-free relay outputs, an audio line out and up to 3 audio line in ports, and / or up to 3 microphone inputs, 3 DAL connections, and a TWI port. This version features an Ethernet connection to other Ethernet capable devices of the VARIODYN D1 family.

Additional accessories such as enclosures, cables, call stations, etc. must be ordered separately.



The DOM components are delivered without branding. Please use a ventilation panel Part No. 583708.HO for every DOM.

## Accessories

583708.HO	Ventilation panel 1 HU with Honeywell logo
583308	Handheld microphone for VARIODYN D1 Comprio
583441.10	Backup cable RC41 VARIODYN D1
584913	Rack for Comprio
584913.R	Rack for Comprio (mounting included)
583414	Cable set 24 V DC-VARIODYN D1 Comprio / 4XD125B
581340	Periphery clamp for top-hat rail
583466	Patch cable CAT5, 0.5 m gray (periphery)
583483	Patch cable CAT5, 3 m blue (DAL)
583451.21	Cable for cabinet rear panel DOM4-8
583477.21	Output cable 2 amplifier DOM
583491	Input cable DOM amplifier, 0.5 m green
583496	End-of-line module (EOL)
581316	Microphone, for AVC
583703	Mounting set 1
583332	Overvoltage protection for UIM contacts

583945

VARIODYN D1 Comprio 4-24 net (with Ethernet)



## Features

- One hour audio memory (flash)
- 4 channel parametric equalizer, compressor/limiter and delay (up to 9.9 seconds)
- Loudspeaker LOOP support
- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- All functions of an alarm and evacuation system
- Networkable via Ethernet, build in 4 port switch
- Permanent monitoring of all functions
- Automatic and dynamic switching of back up amplifier
- Automatic volume control (AVC) even also during announcements
- Remote monitoring and configuration via network
- Two monitored 24 V DC power supply inputs
- 12 contact inputs (8 of which can be monitored)
- 8 relay outputs
- 3 audio-line inputs
- 3 DAL port
- 1 TWI port

## Part of EN 54-16 approval

Comprio is the central controlling unit of VARIODYN D1 system for small and mid-sized objects. Comprio together with four-channel amplifier 4XD125B forms a complete voice alarm system for projects like schools, small hotels etc. The emergency power supply is integrated in four-channel amplifier 4XD125B. Voice alarm system implemented as per DIN VDE 0833-4 and electro acoustic emergency warning system as per EN 60849.

All power amplifiers are permanently monitored. In case of faulty power amplifier, a backup amplifier can replace this dynamically. The switching takes place automatically via Comprio. The loudspeaker lines are permanently monitored for short circuit, ground fault, failure as well as impedance deviation. Faulty loudspeaker zones are separated in a non-reacting manner.

Comprio contains storage capacity for pre-stored messages, which can be used for alarm texts and signals (evacuation alarm, all-clear signal) and caution signals (gong). The volume of each source and each amplifier channel can be controlled. Additional filters like parametric equalizer, high-and low pass filter as well as delays are available as well. All errors are recognized, displayed and recorded within few seconds meeting the standards. For special applications like e.g. tunnel, delays can be programmed up to 9.9 sec.

The controlling unit Comprio is equipped with 4 independent amplifier channels, in order to operate 24 loudspeaker zones all together. Furthermore, Comprio has 12 contact inputs out of which 8 can be monitored and programmed, 8 potential free relay outputs, a audio line output, up to 3 audio line inputs and-/ or up to 3 microphone inputs, 3 DAL connections and a TWI connection.

This version features an Ethernet connection to other Ethernet capable devices of the VARIODYN D1 family.

Additional accessories like housing, cable, call station etc. must be separately ordered.



The DOM components are delivered without branding. Please use a ventilation panel Part No. 583708.HO for every DOM.

## Accessories

583708.HO	Ventilation panel 1 HU with Honeywell logo
583308	Handheld microphone for VARIODYN D1 Comprio
583441.10	Backup cable RC41 VARIODYN D1
584913	Rack for Comprio
584913.R	Rack for Comprio (mounting included)
583414	Cable set 24 V DC-VARIODYN D1 Comprio / 4XD125B
581340	Periphery clamp for top-hat rail
583466	Patch cable CAT5, 0.5 m gray (periphery)
583483	Patch cable CAT5, 3 m blue (DAL)
583451.21	Cable for cabinet rear panel DOM4-8
583477.21	Output cable 2 amplifier DOM
583491	Input cable DOM amplifier, 0.5 m green
583496	End-of-line module (EOL)
581316	Microphone, for AVC
583703	Mounting set 1
583332	Overvoltage protection for UIM contacts

## 580242



### Features

- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- Class D technology, efficiency > 80 %
- 4 independent amplifier channels
- One of four amplifier channels can be used as general average channel
- One height unit
- Ideal for use with the VARIODYN D1 Comprio
- Self-monitoring and self-test by microcontroller
- Protected against overload, short circuit and overheating
- Smooth step-down in 3 dB steps in the event of overload temperature controlled fan
- 24 V DC PSU for back up mains power
- Integrated battery charger according to EN 54-4 for charging batteries up to a capacity of 65 Ah (2 x 12 V / 65 Ah) for emergency power supply of the amplifier and one Comprio or DOM

## Four-channel amplifier 4XD125B

### Part of EN 54-16 approval

Four-channel power amplifier with built in battery charger for emergency power supply of VARIODYN D1 Comprio. 4XD125B has 4 independent amplifier channels with each 125 W in class D technology. Due to the fact that all amplifier channels are complete independent from each others, it is possible to use one channel for back up. This could be for the other 3 channels or also for other amplifier channels of others amplifiers with the same or lower output power (only 4XDxxxB models). The amplifier may be used with the VARIODYN D1 Comprio, as well as a DOM. It is possible to use the amplifier also with a separate PSU, the internal PSU must be switched of then.



The amplifier 4XD125B is currently not yet released for use with the VARIODYN D1 Loop Technology.

### Accessories

583491  
583477.21  
583414  
583413

Input cable DOM amplifier, 0.5 m, green (two times needed)  
Output cable 2 amplifier DOM  
Cable set 24 V DC VARIODYN D1 Comprio / 4XD  
Cable set for connecting the batteries to the 4XDxxxB amplifiers

## 580243

**NEW**



### Features

- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- Class D technology, efficiency > 80 %
- 4 independent amplifier channels
- One of four amplifier channels can be used as general average channel
- One height unit
- Ideal for use with the VARIODYN D1 Comprio
- Self-monitoring and self-test by microcontroller
- Protected against overload, short circuit and overheating
- Smooth step-down in 3 dB steps in the event of overload temperature controlled fan
- 24 V DC PSU for back up mains power
- Integrated battery charger according to EN 54-4 for charging batteries up to a capacity of 65 Ah (2 x 12 V / 105 Ah) for emergency power supply of the amplifier and one Comprio or DOM

## Four-channel amplifier 4XD250B

### Part of the EN 54-16 approval

Four-channel amplifier with integrated battery recharging system for the emergency power supply to the VARIODYN D1 Comprio. The 4XD250B features 4 independent amplifier channels, each with 250 W, in class D technology. Due to the fact that all amplifier channels are complete independent from each others, it is possible to use one channel for back up. This could be for the other 3 channels or also for other amplifier channels of others amplifiers with the same or lower output power (only 4XDxxxB and 4XDxxxW models). The amplifier can be used in combination with the VARIODYN D1 Comprio as well as with a DOM. It is possible to use the amplifier also with a separate PSU, the internal PSU must be switched of then.

### Accessories

583491  
583477.21  
583414  
583413

Input cable DOM amplifier, 0.5 m, green (two times needed)  
Output cable 2 amplifier DOM  
Cable set 24 V DC VARIODYN D1 Comprio / 4XD  
Cable set for connecting the batteries to the 4XDxxxB amplifiers

## 583308



## Hand-held microphone for VARIODYN D1 Comprio

### Part of EN 54-16 approval

Hand-held microphone with announcement key in order to talk directly into the Comprio control unit. The microphone is inserted into the socket directly on the front of the Comprio, and can also be mounted there.

584913

19"- housing for VARIODYN D1 Comprio



## Part of EN 54-16 approval

Housing for VAPA small system Comprio without swivel frame. Housing can be used as free standing housing or for wall mounting. It is 12 HU high and an area of 600 mm x 600 mm and serves for acceptance of Comprio control unit; a four-channel amplifier 4XD125B or 4XD250B with built in emergency power supply, corresponding batteries (up to 105 Ah) and a ventilation field. Furthermore there are 2 or 3 height units (corresponding which amplifier is used), e.g. for the installation of additional components such as recording units. If more space is needed, another 19" Rack from our upright cabinet line can be used.

584913.R

19"-housing for VARIODYN D1 Comprio (incl. assembly)

## Part of EN 54-16 approval

19"-housing for VARIODYN D1 Comprio, but including assembly of voice alarm components and smaller accessories.

581732

Battery 12 V / 65 Ah



Emergency battery for usage in emergency power supply of Voice Alarm applications. Required per 2 pieces.

581730

Battery for emergency power supply 12 V/105 Ah



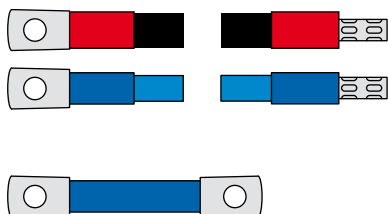
Emergency battery for usage in emergency power supply of Voice Alarm applications.

## Features

- Optimized for using in 19"-cabinets
- Front terminal

583413

Cable set for connecting batteries to VARIODYN D1 4XDxxxB amplifier

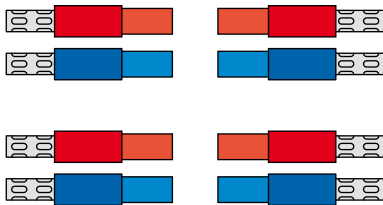


## Part of EN 54-16 approval

Standard cable set for internal housing connection of the batteries to the amplifier 4XD125B or 4XD250B.

583414

Cable set 24 V DC VARIODYN D1 Comprio 4XD



**Part of EN 54-16 approval**

Standard cable set for connecting Comprios to the amplifier 4XD125B or 4XD250B.

583491

Input cable DOM amplifier, 0.5 m green

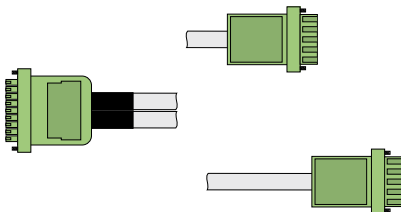


**Part of EN 54-16 approval**

Prefabricated cable from the DOM to the 2-channel power amplifier. If a 4 channel amplifier is used, this cable is needed two times.

583477.21

Output cable 2 amplifier DOM

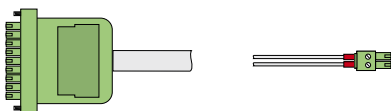


**Part of EN 54-16 approval**

Prefabricated cabling of power amplifiers, 4 channels (max. 100 V) to the DOM.

583441.10

Backup cable RC 41 VARIODYN D1, 0.5 m



Prefabricated cabling of a general average channel on 3 user channels, for the 3:1 average in conjunction with a four-channel amplifier 4XD125B (Part No.580242) or 4XD250B (Part No. 580243). Length 2 m. Short version for Comprio applications.

## Loop Technology LIM

Technology has developed rapidly in the area of electronics in recent years. This has opened up a host of new possibilities for optimizing existing technical solutions and developing new, innovative products. This trend can also be noted in the area of voice alarms.

### Spur circuit versus loop wiring system

In the past, 100 V loudspeaker lines were designed exclusively using spur technology. This led to a high risk of failure, because if one spur circuit was interrupted, all the loudspeakers after the wire break would fail. The entire spur circuit would go down in the case of a short circuit.

### Minimizing the risk of failure

To minimize this risk of failure in the case of a wire break or short circuit, A/B wiring was used for a long time for based systems on DIN VDE 0833-4 (safety level 2 and 3).

In the case of A/B wiring, half of the loudspeakers in a room are operated on different loudspeaker lines.

This means that in the case of a basic line fault, such as a wire break or short circuit, half of the loudspeakers in the relevant area will still be in operation.

If half of the loudspeakers fail and the alarms are therefore operating at half power, the sound level is reduced by about 3 dB if the loudspeakers are arranged correctly.

VARIODYN D1 loop technology is a new technology for optimizing the reliability of the loudspeaker connection.

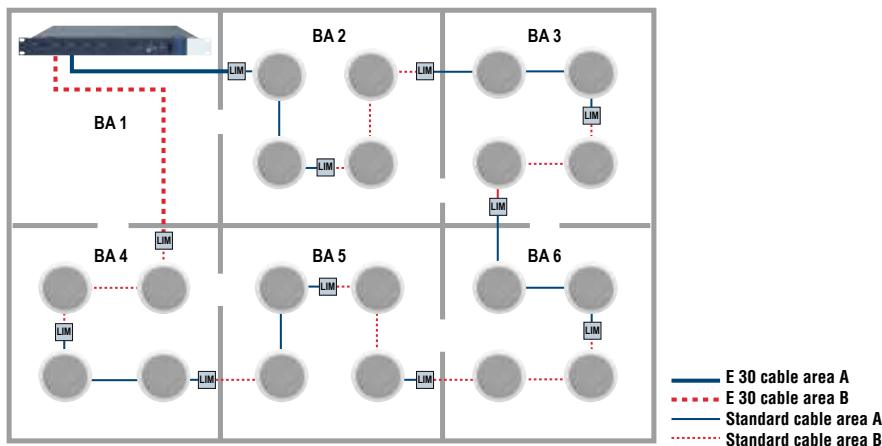
With this new type of technology, a wire-break and short-circuit-resistant loop is constructed, similar to the case of fire detection technology.

### One of the first systems on the market

VARIODYN D1 is one of the first voice alarm systems on the market to have this loop wiring system technology. This new technology is based on the proven DOM4-8 which is used for creating up to 4 wire-break and short-circuit-resistant loops. On each of these 4 loops, up to 64 loop isolator modules can be used. Impedance monitoring is used in terms of monitoring technology, which, unlike other solutions, does not require coupling capacitors in the loudspeakers. The loop isolator modules monitor the loudspeaker loop in connection with the DOM and isolate the faulty piece of wire from the loop in the case of a short circuit. This means that if each loudspeaker is equipped with a loop isolator module, 100 % system reliability is ensured in the case of a basic line fault.

### The main advantages of this loop technology are as follows:

- 100% system reliability when each loudspeaker is provided with a loop isolator module
- A/B wiring can be replaced easily
- Only minimum E30 cables needed
- Considerable cost savings for wiring and installation
- Second loudspeaker not necessary in small rooms



583342

# Loop Isolator Modul LIM



## Features

- Much higher safety than spur cabling
- Fully redundant 100 V loop wiring system technology
- Extensive topologies are possible
- Short-circuit and wire break tolerant
- EN54-17 certified
- Large saving in wiring and installation

## VdS approval: G 212061

Loop isolator module to install a short-circuit and open-circuit tolerant 100 V loudspeaker loop wiring system in VARIODYN D1 loop technology. The modules monitor the current on the loudspeaker ring and disconnect in case of over-current, e.g. in the case of short-circuit, the defective part of the ring from the rest. Loop failures are displayed on DOM and VCM. Each module has a total of three two-pole terminals to connect the loop wiring system and the speakers. Wires can be connected with a section of up to 2.5 mm<sup>2</sup> to the terminals. Furthermore, a LED of its operating condition is on each module. The Loop Isolator module is housed in a stable, compact IP 66 housing with more of wiring space and is can be use in projects with difficult environmental condition, e.g. industrial use.

**The 4XD300 and 4XD500 will be available in a new version by QII/2016 and supports then also VARIODYN D1 Loop Technology.**

Power amplifier	Max. LIM number	Max. loop length incl. spurs
2XD250	40	1000
2XD400	64	1000
4XD125B	---	---
4XD300	---	---
4XD500	---	---
4XD250B	25	500

## 580231



### Features

- Compliant with EN 60849 and EN 50849
- EN 54-16 certified
- Class D two channel amplifier
- Protected against overload and short- circuits
- Protected against overheating
- Monitoring by VARIODYN D1 DOM
- 24 V DC emergency power supply input

### General display element

- System voltage (green LED)
- CPU status (green LED)
- Combined fault (yellow LED)
- 24 V emergency power supply (yellow LED)

### Display element per amplifier channel

- Operation (green LED)
- Amplifier channel status (green LED)
- Amplifier channel error (yellow LED)
- Clip display (yellow LED)

## Power amplifier 2XD250

**VdS approval: G 210122**

**Part of EN 54-16 approval**

### Use

The power amplifier has two independent amplifier channels, each with 250 Watt and is compatible to VARIODYN D1 system. The power amplifiers are controlled and monitored by VARIODYN D1 Comprio DOM4-8 or DOM4-24.

### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Rated current	2.8 A
Power output	2 x 250 W (sin, @ 40 Ω)
Emergency power supply	24 V DC
Technology	Klasse D
Transmission range	50 ... 22000 Hz
Input level	0 dBu
Load impedance	> 20 kΩ (symmetrically)
Harmonic distortion at nominal level	< 0.3 % @ 1 kHz
Efficiency	> 80 % (at max. level)
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 55 °C
Air humidity	< 93 % (non condensing)
Weight	approx. 16.5 kg
Dimensions	W: 482 mm H: 89 mm D: 402 mm (2 HU, 19")
Declaration of Performance	DoP-20997130701

### Accessories

583491	Cable DOM-XV for amplifier audio input and remote control
583476.21	Cable XV-DOM for amplifier audio output (for 1 amplifier @ one DOM or Comprio)
583477.21	Cable XV-DOM for amplifier audio output (for 2 amplifier @ one DOM or Comprio)
583703	Mounting set 1

## 580232



### Features

- Compliant with EN 60849 and EN 50849
- EN 54-16 certified
- Class D two channel amplifier
- Protected against overload and short- circuits
- Protected against overheating
- Cooling by way of controlled ventilation
- Monitoring by VARIODYN D1 DOM
- 24 V DC emergency power supply input

### General display element

- System voltage (green LED)
- CPU status (green LED)
- Combined fault (yellow LED)
- 24 V emergency power supply (yellow LED)

### Display element per amplifier channel

- Operation (green LED)
- Amplifier channel status (green LED)
- Amplifier channel error (yellow LED)
- Clip display (yellow LED)

## Power amplifier 2XD400

**VdS approval: G 210122**

**Part of EN 54-16 approval**

### Use

The power amplifier has two independent amplifier channels, each with 400 Watt and is compatible to VARIODYN D1 system. The power amplifiers are controlled and monitored by VARIODYN D1 Comprio DOM4-8 or DOM4-24.

### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Rated current	4.5 A
Power output	2 x 400 W (sin, @ 25 Ω)
Emergency power supply	24 V DC
Technology	Klasse D
Transmission range	50 ... 22000 Hz
Input level	0 dBu
Load impedance	> 20 kΩ (symmetrically)
Harmonic distortion at nominal level	< 0.3 % @ 1 kHz
Efficiency	> 80 % (at max. level)
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 55 °C
Air humidity	< 93 % (non condensing)
Weight	approx. 19 kg
Dimensions	W: 482 mm H: 89 mm D: 402 mm (2 HU, 19")
Declaration of Performance	DoP-20997130701

### Accessories

583491	Cable DOM-XV for amplifier audio input and remote control
583476.21	Cable XV-DOM for amplifier audio output (for 1 amplifier @ one DOM or Comprio)
583477.21	Cable XV-DOM for amplifier audio output (for 2 amplifier @ one DOM or Comprio)
583703	Mounting set 1

580242

## Four-channel amplifier 4XD125B



### Features

- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- Class D technology, efficiency > 80 %
- 4 independent amplifier channels
- One of four amplifier channels can be used as general average channel
- One height unit
- Ideal for use with the VARIODYN D1 Comprio
- Self-monitoring and self-test by microcontroller
- Protected against overload, short circuit and overheating
- Smooth step-down in 3 dB steps in the event of overload temperature controlled fan
- 24 V DC PSU for back up mains power
- Integrated battery charger according to EN 54-4 for charging batteries up to a capacity of 65 Ah (2 x 12 V / 65 Ah) for emergency power supply of the amplifier and one Comprio or DOM

### Part of EN 54-16 approval

Four-channel power amplifier with built in battery charger for emergency power supply of VARIODYN D1 Comprio. 4XD125B has 4 independent amplifier channels with each 125 W in class D technology. Due to the fact that all amplifier channels are complete independent from each others, it is possible to use one channel for back up. This could be for the other 3 channels or also for other amplifier channels of others amplifiers with the same or lower output power (only 4XDxxxB models). The amplifier may be used with the VARIODYN D1 Comprio, as well as a DOM. It is possible to use the amplifier also with a separate PSU, the internal PSU must be switched of then.

### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Emergency power supply	24 V DC
Technology	Class D
Channel separation	> 42 dB
Harmonic distortion at nominal level	< 0.03 %
Ambient temperature	-5 °C ... 55 °C
Air humidity	0 ... 93 % (non condensing)
Color	gray, similar to RAL 7016
Dimensions	W: 483 mm H: 44 mm D: 402 mm 1 HU, 19"
Declaration of Performance	DoP-00376130701



The amplifier 4XD125B is currently not yet released for use with the VARIODYN D1 Loop Technology.

### Accessories

583491	Input cable DOM amplifier, 0.5 m, green (two times needed)
583477.21	Output cable 2 amplifier DOM
583414	Cable set 24 V DC VARIODYN D1 Comprio / 4XD
583413	Cable set for connecting the batteries to the 4XDxxxB amplifiers

580243

## Four-channel amplifier 4XD250B

**NEW**



### Features

- EN 54-16 certified
- Compliant with EN 60849 and EN 50849
- Class D technology, efficiency > 80 %
- 4 independent amplifier channels
- One of four amplifier channels can be used as general average channel
- One height unit
- Ideal for use with the VARIODYN D1 Comprio
- Self-monitoring and self-test by microcontroller
- Protected against overload, short circuit and overheating
- Smooth step-down in 3 dB steps in the event of overload temperature controlled fan
- 24 V DC PSU for back up mains power
- Integrated battery charger according to EN 54-4 for charging batteries up to a capacity of 65 Ah (2 x 12 V / 105 Ah) for emergency power supply of the amplifier and one Comprio or DOM

### Part of the EN 54-16 approval

Four-channel amplifier with integrated battery recharging system for the emergency power supply to the VARIODYN D1 Comprio. The 4XD250B features 4 independent amplifier channels, each with 250 W, in class D technology. Due to the fact that all amplifier channels are complete independent from each others, it is possible to use one channel for back up. This could be for the other 3 channels or also for other amplifier channels of others amplifiers with the same or lower output power (only 4XDxxxB and 4XDxxxW models). The amplifier can be used in combination with the VARIODYN D1 Comprio as well as with a DOM. It is possible to use the amplifier also with a separate PSU, the internal PSU must be switched of then.

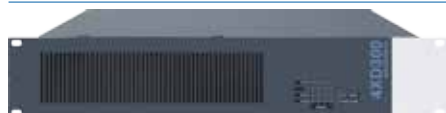
### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Emergency power supply	24 V DC
Technology	Class D
Channel separation	> 75 dB
Harmonic distortion at nominal level	< 0.3 % @ 1 kHz
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 55 °C
Weight	approx. 12 kg
Dimensions	W: 483 mm H: 90 mm D: 408 mm
Declaration of Performance	DoP-00376130701

### Accessories

583491	Input cable DOM amplifier, 0.5 m, green (two times needed)
583477.21	Output cable 2 amplifier DOM
583414	Cable set 24 V DC VARIODYN D1 Comprio / 4XD
583413	Cable set for connecting the batteries to the 4XDxxxB amplifiers

## 580248



### Features

- Built-in electronic protective circuit against thermal overload, DC signals, sub frequent signals, short circuit, open outputs and HF interference
- 4 Potentiometer on the back adjustable for input amplification for each channel
- Separate front-panel LED status display for each channel for CLIP, PROTECT, SIGNAL, POWER, NETWORK and 24 V DC power.
- Back switch contact for sequential remote power
- 2 back fault message contacts
- Back fault message contact for missing 24 V emergency power supply
- 24 V emergency power supply input

## Four-channel amplifier 4XD300

### Part of the EN 54-16 approval

Power amplifier for the voice alarm system VARIODYN D1 in class D technologies with four independent power channels and galvanic isolated 100 V direct outputs, symmetric inputs, inrush current limitation and soft start. In comparison to our 4XDxxxB series amplifiers, one amplifier can back up another amplifier.

Four built-in fans with smooth temperature controlled speed control.

### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Power output	4 x 300 W
Emergency power supply	24 V DC
Technology	Class D
Channel separation	> 92 dB
Harmonic distortion at nominal level	< 0.02 %
Ambient temperature	-5 °C ... 55 °C
Air humidity	40 ... 93 % (non condensing)
Color	gray, similar to RAL 7016
Weight	approx. 13.8 kg
Dimensions	W: 484 mm H: 88 mm D: 400 mm (2HU 19")

### Accessories

583491	Input cable DOM-amplifier, 0.5 m green (two times needed)
583477.21	Output cable 2 amplifier -DOM

## 580249



### Features

- Built-in electronic protective circuit against thermal overload, DC signals, sub frequent signals, short circuit, open outputs and HF interference
- 4 Potentiometer on the back adjustable for input amplification for each channel
- Separate front side LED status display per channel for CLIP, PROTECT, SIGNAL, POWER, LINE and 24 V DC power
- Back switch contact for sequential remote power
- 2 back fault message contacts
- Back fault message contact for missing 24 V emergency power supply
- 24 V emergency power supply input

## Four-channel amplifier 4XD500

### Part of the EN 54-16 approval

Power amplifier for the voice alarm system VARIODYN D1 in class D technologies with four independent power channels and galvanic isolated 100 V direct outputs, symmetric inputs, inrush current limitation and soft start. In comparison to our 4XDxxxB series amplifiers, one amplifier can back up another amplifier.

Four built-in fans with smooth temperature controlled speed control.

### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Power output	4 x 500 W
Emergency power supply	24 V DC
Technology	Class D
Channel separation	> 92 dB
Harmonic distortion at nominal level	< 0.02 %
Ambient temperature	-5 °C ... 55 °C
Color	gray, similar to RAL 7016
Weight	approx. 14 kg
Dimensions	W: 484 mm H: 88 mm D: 400 mm (2 HU 19")

### Accessories

583491	Input cable DOM amplifier, 0.5 m, green (two times needed)
583477.21	Output cable 2 amplifier DOM

## Redundant callstation

583501.RE

Digital Call Station DCS15 redundant



### Features

- High failure safety due to redundant transmission route
- Cost-effective CAT5 cabling
- Elektret gooseneck microphone with cardioid pattern
- Permanent monitoring of the microphone and cable
- Loudspeaker for monitoring and for intercom operation between other paging stations (DCS series)
- 24-bit AD/DA converter
- Independent additional audio input/output e.g. for audioplayer
- 12 freely configurable keys with independent programmable LED
- A separate LED, programmable in yellow or red
- Can be used redundantly as well as non-redundantly

### Part of the EN 54-16 approval

In many installation codes it is necessary to have redundancy in critical signal routes like speaker cables (Loop or AB cabling), between fire panel and the VAPA system. In some installation codes this includes also the connection to the fire men paging microphone. If the connection is lost, there is no way for any live announcement to people which are potential or actually in high danger. Our paging station supports also redundant cable connection to two separate Comprio (not standalone version of Comprio) or DOM. Means it's possible to connect two cables to one paging station. For redundant operation, two cables (CAT5) connected to one paging microphone are needed. The digital paging microphone DCS15 RE serves for the selection of loudspeaker circuits and for setting off speech announcements as well as various gong or alarm sounds. It features 12 freely configurable keys, 13 LED and a gooseneck microphone. The paging microphone is connected with our DAL (Digital Audio Link) bus to a Comprio or DOM by a standard CAT5 cable. All audio signals and all control signals are transmitted digitally. The function of the microphone of the digital paging microphone is permanently acoustically monitored. The DCS15 RE further provides an external audio input and output which can be used for connecting audio devices such as CD players. Up to four DAL bus links can be connected to a DOM. Every DCS in the system can simultaneously generate and receive different voice transmissions and control signals. A digital paging microphone can be offset up to 300 m by means of a CAT5 cable. For redundant operation, two CAT5 cables are needed. Extension to a greater distance is possible with fiber optic (FO) cables - see respective FO converters which are needed additionally. Also a connection with FO cables can be done redundant. If more keys and/or LEDs are needed, it is possible to add up to six digital key modules (DKM18), which allows the increase of the total number of available keys and LEDs to 120 per call station.

### Technical Data

<b>Audio output:</b>	
Nominal level	0 dBu
Transmission range	20 ... 22000 Hz
<b>Audioinput:</b>	
Nominal level	0 dBu
<b>Common technical data:</b>	
Microphone	Elektret, cardoid characteristic
Swan-neck	250 mm
Loudspeaker	1 W
Sample rate	48 kHz
AD/DA converter	24 Bit
Current consumption	< 70 mA
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non condensing)
Color	black, similar to RAL 9005 (side frames) gray, similar to RAL 7037 (middle body)
Weight	approx. 1.6 kg
Dimensions	W: 123 mm H: 71 mm D: 180 mm
Declaration of Performance	DoP-20997130701



The digital communication may be embedded in the surface of a table, for which a table mounting kit per unit is required. In order to protect from unintentional key press, a transparent key cap is available. Pressing of keys is only possible with open caps. One of these caps three horizontally arranged keys can be protected.



A 3 m long CAT5 cable for connecting the digital communication unit to a wall jack, is included in delivery.

### Accessories

583506	Digital push-button module DKM 18 for redundant call stations
583311	Keyboard protection for call station DCS VARIODYN D1
583312	Table installation kit for DCS call station VARIODYN D1
583507	Installation kit for redundant DCS
583300.HO	Adhesive sticker for DCS "Honeywell"
583318	Substitute key caps (PU 12 pieces)

### Redundant Connection to Two DOMs\*



### Single Connection



## 583502.RE

## Digital Call Station DCS2 redundant



## Features

- High failure safety due to redundant transmission route
- A light emitting diode, programmable in yellow or red
- Can be used redundantly as well as non-redundantly

## Part of the EN 54-16 approval

As Part No. 583501.RE, however, with only one free configurable key, two LEDs, one microphone and one speaker. An additional audio input/output is not available with this device.

## Technical Data

Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non condensing)
Weight	approx. 1.6 kg
Declaration of Performance	DoP-20997130701



A 3 m long CAT5 cable for connecting the digital communication unit to a wall jack, is included in delivery.

## Accessories

583507

Installation kit for redundant DCS

## 583506

## Digital Key Module DKM18 for redundant call stations



## Part of the EN 54-16 approval

Digital key module DKM18 with 18 freely configurable keys and 18 LEDs. Up to 6 of these DKM18 key modules can be connected to a redundant DCS15 or DCS2. This allows for redundant call stations with up to 120 keys and 120 LEDs. Only suitable for call stations with the .RE suffix.

## Technical Data

Dimensions	W: 123 mm H: 71 mm D: 180 mm
Declaration of Performance	DoP-20997130701

## Accessories

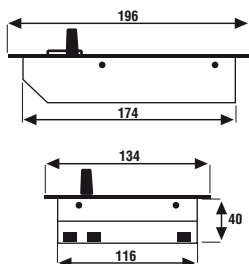
583507

Installation kit for redundant DCS

## Redundant fire brigade stations

583503.RE

Digital firefighter microphone DCSF12 redundant



### Features

- High failure safety due to redundant transmission route
- Hand-held microphone with built-in loudspeaker and acoustic microphone monitoring
- Permanent monitoring of the line to the next interface module
- 24-bit AD/DA converter
- 12 freely configurable keys
- Additional LED programmable in yellow or red

### Part of the EN 54-16 approval

In many installation codes it is necessary to have redundancy in critical signal routes like speaker cables (Loop or AB cabling), between fire panel and the VAPA system. In some installation codes this includes also the connection to the fire men paging microphone. For very good reason, because if the connection to the call station is lost, there is no way for any live announcement to people which are potential or actually in high danger.

Our paging station supports also redundant cable connection to two separate Comprio (not standalone Version of Comprio) or DOM. Means it's possible to connect two cables to one paging station. For redundant operation, two cables (CAT5) connected to one paging microphone are needed. The digital paging microphone DCSF12 serves for the selection of loudspeaker circuits and for setting off speech announcements as well as various gong or alarm sounds. It features 12 freely configurable keys, 13 LED and a handheld microphone. The paging microphone is connected with our DAL (Digital Audio Link) bus to a Comprio or DOM by means of a standard CAT5 cable. All audio signals and all control signals are transmitted digitally. The function of the microphone of the digital paging microphone is permanently acoustically monitored.

Up to four DAL bus links can be connected to a DOM. Every digital call station in the system can simultaneously generate and receive different voice transmissions and control signals. A digital paging microphone can be offset up to 300 m by means of a CAT5 cable. For redundant operation, two CAT5 cables are needed. Extension to a greater distance is possible with fiber optic (FO) cables - see respective FO converters which are needed additionally. Also a connection with FO cables can be done redundant.

If more keys and/or LEDs are needed, it is possible to add up to six digital key modules (DKM18), which allows the increase of the total number of available keys and LEDs to 120 per call station.

### Technical Data

Microphone	Elektret, cardoid characteristic
Loudspeaker	1 W
Sample rate	48 kHz
AD/DA converter	24 Bit
Current consumption	< 150 mA
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non condensing)
Color	black, similar to RAL 9005 (side frames) gray, similar to RAL 7037 (middle body)
Weight	approx. 1.6 kg
Dimensions	W: 134 mm H: 40 mm D: 196 mm
Declaration of Performance	DoP-20997130701



In order to protect from unintentional key strokes, a transparent key cap is available. In this way pressing of keys is only possible with open caps. With one of these caps, three horizontally arranged keys of a digital telephone station or a digital key module can be protected.



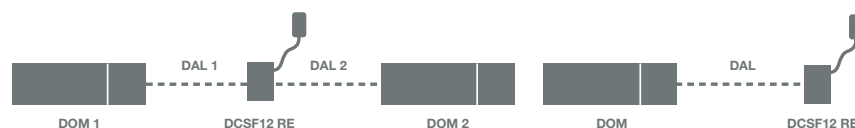
A 3 m long CAT5 cable for connecting the digital communication unit to a wall jack, is included in delivery.

### Accessories

583506	Digital push-button module DKM 18 for redundant call stations
583311	Keyboard protection for call station DCS VARIODYN D1
583316.21	FO conversion for OIM control panel VARIODYN D1
583317.21	FO conversion for digital call stations DCS VARIODYN D1
583315.02	PSU for FO converter DCS O VARIODYN D1
583307	Wall junction box for call station DCS VARIODYN D1
583300.HO	Adhesive sticker for DCS "Honeywell"
583318	Substitute key caps (PU 12 pieces)
583709	Blind cover for the installation of a DCSF12 or a DCSF1 in the upright cabinet
584961	Enclosure for an FB call station DCSF
584962	Enclosure for two FB call stations DCSF

### Redundant Connection to Two DOMs\*

### Single Connection



## 583504.RE

## Digital firefighter microphone DCSF1 redundant



### Features

- High failure safety due to redundant transmission route
- A light emitting diode, programmable in yellow or red
- Can be used redundantly as well as non-redundantly

### Part of the EN 54-16 approval

Same as Part No. 583503.RE but with one freely configurable key, two LEDs and a manual microphone with a built-in loudspeaker.

### Technical Data

Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non condensing)
Weight	approx. 1.6 kg
Declaration of Performance	DoP-20997130701

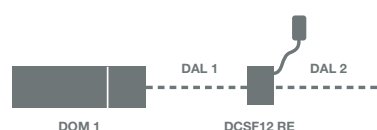


A 3 m long CAT5 cable for connecting the digital communication unit to a wall jack, is included in delivery.

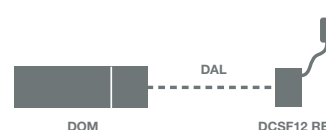
### Accessories

583709	Dummy plate
584961	Housing for a FW-Communication DCSF
584962	Housing for two FW-Communication DCSF

### Redundant Connection to Two DOMs\*



### Single Connection



## 583505.RE

## Fire Brigade Call Station DCSF7



### Features

- Five freely-programmable buttons for alarms
- One freely configurable button for the all-clear signal
- One button for resetting/acoustics
- Three integrated LED (Operation, Fault, Occupied)
- Hand-held microphone with cardioid characteristics and PTT talk button
- Optional fiber optic connection for distances of up to 2000 m
- EN 54-16 certified

### VdS approval: G 210122

### Part of EN 54-16 approval

The Digital Fire Brigade Call Station DCSF7 serves to dial and start pre-configured alarm text messages and to broadcast voice announcements by the fire brigade.

This call station is designed for the use in Austria. The buttons are labeled in german, but they could easily paste over on your own convenience.

The Digital Fire Brigade Call Station DCSF7 is used along with ENS VARIODYN D1 and contains a hand-held microphone with talk button, operation/display elements and an inbuilt loudspeaker for acoustic microphone monitoring and the acoustic error message to be broadcast.

All other features, including the redundant cabling are the same like the other DCS and DSCF call stations.

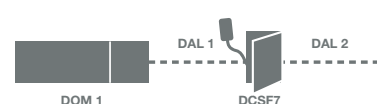
### Technical Data

Operating voltage	24 V DC
Microphone	Manual microphone, cardioid characteristic, Push-To-Talk (PTT) button
Loudspeaker	1 W
Sample rate	48 kHz
AD/DA converter	24 Bit
Current consumption	< 150 mA
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non condensing)
Color	red, similar to RAL 3000 (housing) white, similar to RAL 9002 (key pad)
Weight	approx. 2 kg
Dimensions	W: 200 mm H: 300 mm D: 55 mm
Declaration of Performance	DoP-20997130701

### Accessories

583316.21	LWL-Converter-Central
583317.21	LWL-Converter-communication unit
583300.ES	Label for DCS "ESSER by Honeywell"
583318	Replacement-Key caps (VPE 12 pieces)

### Redundant Connection to Two DOMs\*



### Single Connection



## Accessories for paging microphones

584960

### FIOS mounting kit for DCSF1/12 call station



For mounting the digital call stations DCSF1 and DCSF12 into the fire information and operating system FIOS.

#### Technical Data

Color	black
Dimensions	W: 240 mm H: 170 mm D: 47 mm



584961

### Enclosure for a firefighter paging microphone DCSF



Wall enclosure out of sheet steel for the inclusion a firefighter paging microphone DCSF12 (Part No. 583503.RE) or DCSF (Part No. 583504.RE) in the original enclosure. Additional you have to order an installation kit (Part No. 583312 for each DCS/DKM).

#### Technical Data

Type of protection	IP 30
Color	red, similar to RAL 3000
Weight	approx. 4.8 kg
Dimensions	W: 350 mm H: 265 mm D: 100 mm



Housing including a pack with 4 screws for the installation of the call station.  
This call station is not included in the scope of the delivered package.

#### Features

- Powder coated in red, similar RAL 3000
- Door with a viewing window 180 x 120 mm with acrylic glass cover
- Internal mounting plate for installation of the DCS
- 3 cable entries on rear wall of housing
- 2 cable entries on the upper and lower housing - and -bottom side respectively
- A cable entry on the right and left of the housing
- A mounting bracket for fiber optic converter Part No. 583317.21 in the housing

#### Accessories

584963	Profile half-cylinder with standard closure
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584962

### Enclosure for one firefighter paging microphone and one DKM



#### Features

- Powder coated in red, similar RAL 3000
- Door with 2 viewing windows 180 x 120 mm with acrylic glass cover
- Prepared to include fire closure
- Internal mounting plate for installation of the DCS/ DKM
- 6 Cable entries on rear wall of housing
- 2 Cable entries on the upper and lower housing - and -bottom side respectively
- 2 Cable entries right and left of housing respectively
- 2 Mounting brackets for LWL-Converter type. Part No. 583317.21 in housing

Wall enclosures made of sheet steel for holding one firefighter paging microphone DCSF12 (Part No. 583503.RE) or DCSF (Part No. 583504.RE and one DKM18 Part No. 583306.21) in the original enclosure. Additional you have to order a installation kit (Part No. 583312 for each DCS/ DKM).

#### Technical Data

Type of protection	IP 30
Color	red, similar to RAL 3000
Weight	approx. 8.4 kg
Dimensions	W: 350 mm H: 500 mm D: 100 mm



Housing including accessory kit with 8 screws for assembly of the callstations. The callstations are sold separately.

#### Accessories

584963 Profile half-cylinder with standard closure

584963

### Profile half-cylinder with standard closure



Profile half-cylinder with standard locking for mounting in fire brigade call station housing Part No. 584961 or 584962.



Fastening screw and 2 keys are included in the delivery.

## Accessories for Call Stations

583316.21

LWL converter multi mode



### Features

- EN 54-16 certified

**VdS approval: G 210122**

**Part of EN 54-16 approval**

Assembly for connection of digital communication units DCS or UIM to VARIODYN D1 via multimode optical fiber.

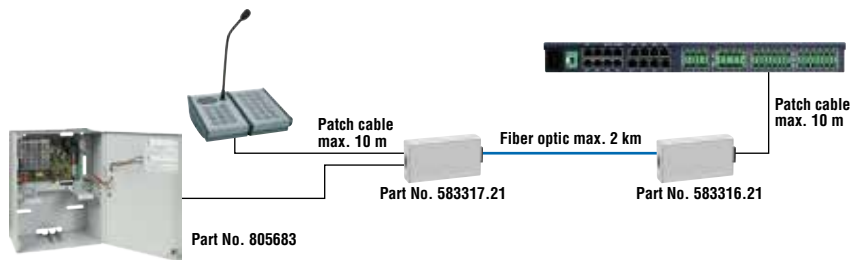
### Technical Data

Wavelength	1308 nm
Range	< 2 km
FO-Connector	Duplex SC
Dimensions	W: 115 mm H: 55 mm D: 25 mm
Declaration of Performance	DoP-20997130701

### Accessories

583315.02  
805683

Power supply for LWL converter  
External power supply DCU 2403



583316.SM

LWL converter single mode



### Features

- EN 54-16 certified

**Part of EN 54-16 approval**

Assembly for connecting digital communication DCS and/or UIM to VARIODYN D1 from single mode – fiber optic cable.

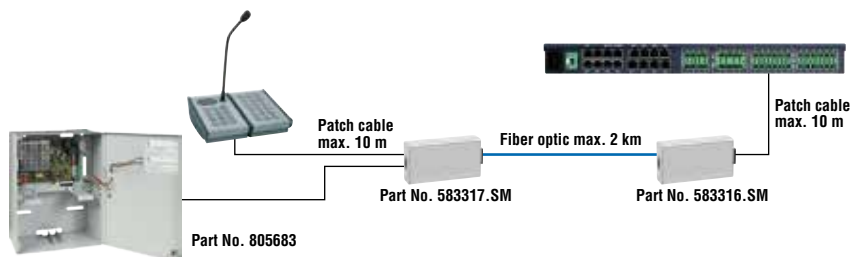
### Technical Data

Range	< 20 km
Declaration of Performance	DoP-00376130701

### Accessories

583315.02  
805683

Power supply for LWL converter  
External power supply DCU 2403



583317.21

LWL converter for DCS multi mode



## Features

- Authorized in compliance with EN 54-16

**VdS approval: G 210122**

**Part of EN 54-16 approval**

Assembly for connection of digital communication units DCS or UIM to VARIODYN D1 via multimode optical fiber. The voltage supply in the case safety relevant should be performed from the 24 V DC power supply of the voice alarm system or through a power supply supplied by a battery (Part No. 805683).

## Technical Data

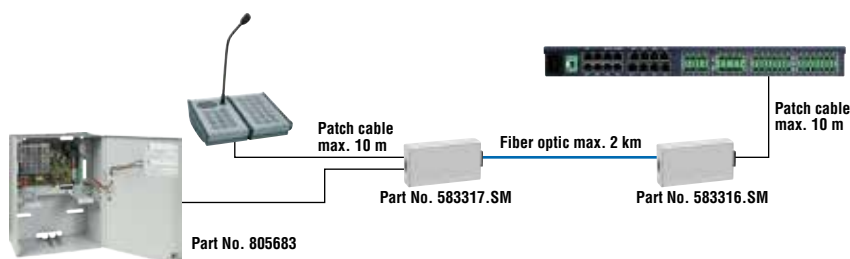
Operating voltage	24 V DC
Current consumption @ 24 V DC	approx. 500 mA
Wavelength	1308 nm
Range	< 2 km
FO-Connector	Duplex SC
Dimensions	W: 115 mm H: 55 mm D: 25 mm
Declaration of Performance	DoP-20997130701

## Accessories

583315.02

805683

PSU for FO converter  
External PSU DCU 2403



583317.SM

LWL converter for DCS single mode



## Features

- Authorized in compliance with EN 54-16

**Part of the EN 54-16 certification**

Assembly for connecting digital communication DCS and/or UIM to VARIODYN D1 from single mode – fiber optic cable. The voltage supply in the case safety relevant should be performed from the 24 V DC power supply of the voice alarm system or through a power supply supplied by a battery (Part No. 805683).

## Technical Data

Range	< 20 km
Declaration of Performance	DoP-00376130701

## Accessories

583315.02

805683

PSU for FO converter  
External PSU DCU 2403

583315.02

Power supply for LWL converter



Power supply for fiber optic converter Part No. 583317.21. For non-security applications.

583307

Wall-surface mount terminal box for DCS



Wall jack to connection of a communication unit of the series DCS or DCSF.

583300.HO

## Adhesive label for DCS "Honeywell"



Label for the call stations of the DCS series and DCSF with the "Honeywell" branding.



10 pieces

583300.VD

## Adhesive label for DCS "VARIODYN D1"

Label for the call stations of the DCS series and DCSF with the "VARIODYN D1" branding.

583311

## Keyboard cover for DCS VARIODYN D1 call station



Transparent key cap to protect from accidental key presses. So, pressing the keys is only made possible with an open cap. With one of these caps, three horizontally arranged keys of a digital telephone station or a digital key module can be protected.

583507

## Installation kit for redundant DCS



Installation kit for DCS15RE, DCS2RE, or DKM18. This installation kit is needed to install a paging microphone in a table surface or the 19" panel (Part No. 583709)

### Technical Data

Dimensions

W: 134 mm H: 40 mm D: 196 mm

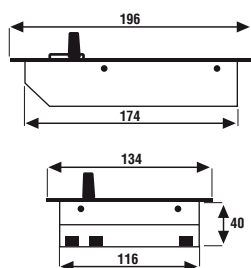


Can be used for RE versions!

### Accessories

583709

Blind cover 4 HU



583318

## Key cap



Replacement key caps for telephone stations of the DCS, DCFS and DKM series.



12 pieces

583560

## PC Touch Screen Call Station



A professional point of sales (POS) PC hardware in an attractive and stable housing with a 15" touch screen comes in a bundle with a paging microphone, a microphone base and the microphone cable. Also includes the necessary PAMMI Plus server/client small installation licence which supports up to 10 DOM in one network. It is possible to install up to 20 PC TS Call Stations in one VARIODYN D1 Network.

### Accessories

583654	PAMMI Plus small installations
583561	PC with Touch Screen
583562	Dyn. Swanneck microfon
583563	Microfone Stand
583564	Cable for PC TS Call Station

583562

## Dynamic Gooseneck Microphone



### Technical Data

Transmission range	50 ... 18000 Hz
Color	black
Weight	approx. 208 g
Dimensions	L: 270 mm (Gooseneck) L: 400 mm (Total)

### Features

- On/off switch
- 3 pin XLR connector

583563

## Microphone Stand



### Features

- Table Stand
- XLR sockets for all installation microphones
- Selfstanding

583564

## Cable for PC TS Call Station



### Features

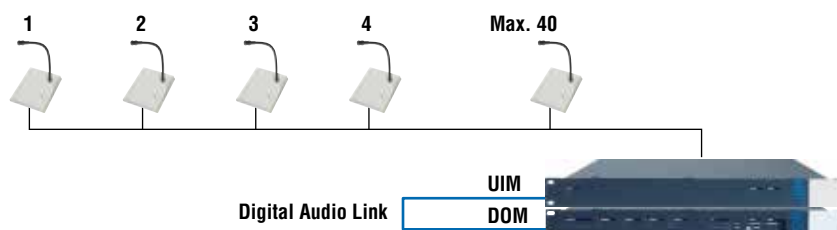
- Sennheiser CL2 – line cable
- Mini plug 3,5 mm to XLR female

## Call stations for non-safety related applications

The DIGISystem M is a universal call station system for loudspeakers. Up to 40 call stations can be connected parallel, though only one NF-input and up to 5 digital inputs are used on a UIM. Processor-controlled different functions for the keys are possible. No special receiver is required in the VARIODYN system, only one UIM. The NF-output should be connected on a UIM-line input and the switching outputs to UIM-contact inputs. The control line 9 (PPT contact) is equipped to trigger this function with a minimum lag of time to prevent mechanical noise while pressing the keys.

The telephone stations are suitable for the use in departmental stores, courts, furniture stores, home improvement store etc.

The call stations are NOT for safety-related announcements, for e.g. for alerts and evacuation messages.



### 586101



#### Paging microphone station for external microphone DIGIM1WH

In an elegant enclosure for space-saving use at cash registers. Type: DIGIM1WH with 9 pole D-sub-plug for connecting hand-held microphones with key and busy indicator. Furthermore: 1 labellable key with LED-indicator for key control and busy, power, status, or gong indicators. Diode-programmable processor control Integrated Limiter and special purpose circuit for eliminating switch-on noises. Built-in +6 dB NF amplifier with volume control. Succinct brief pre-gong signal with volume and pitch regulation. Parallel circuit of up to 40 call stations via line JY(ST)Y4(6)x2x0,8(0,6).

##### Technical Data

Operating voltage	24 V DC
Current consumption @ 24 V DC	approx. 24 mA
Housing	ABS light gray
Dimensions	W: 122 mm H: 41 mm D: 185 mm

##### Accessories

586100	Dynamic hand-held microphone
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### 586100



#### Dynamic hand-held microphone

Hand-held microphone in a stable metal version, with one key for paging microphone station DIGIM1WH (Part No. 586101).

##### Technical Data

Ambient temperature	-30 °C ... 70 °C
Storage temperature	-40 °C ... 80 °C
Air humidity	< 93 % (non condensing)
Type of protection	IP 40
Weight	approx. 210 g (incl. cable)

### 586102



#### Desktop microphone with pre chime DIGIM1

Desktop call station built-in pre chime DIGI M1. 1 writable button with LED indicator for keyboard control and busy /operating-/chime display. Processor control with programming via diodes. Integrated limiter and special circuit to eliminate thumps. Built-in + 6 dB NF-amplifier with volume control. Concise short chime with controls for volume and pitch. Parallel connection of up to 40 call stations on line JY(ST)Y6 (4) x 2 x 0.8 (0.6). 3 m connecting cable with D-Sub-plug 9-pin. Cardioid swan-neck in electret condenser technology.

##### Technical Data

Operating voltage	24 V DC
Current consumption @ 24 V DC	approx. 24 mA
Housing	ABS light gray
Dimensions	L: 250 mm W: 125 mm H: 30 mm D: 150 mm

586103

### Desktop call station with pre chime DIGIM4



Desktop call station with chime-system DIGI M4 placed in housing. 4 writable buttons with LED indicator for keyboard control and busy /operating-/chime display. Processor control with programming via diodes. Integrated limiter and special circuit to eliminate thumps. Built-in +6 dB NF-amplifier with volume control. Concise short chime with controls for volume and pitch. Parallel connection of up to 40 call stations on line JY(ST)Y6(4)x2x0.8(0.6). 3 m connecting cable with D-Sub-plug 9-pin. Cardioid swan-neck in electret condenser technology.

#### Technical Data

Operating voltage	24 V DC
Current consumption @ 24 V DC	approx. 30 mA
Housing	ABS light gray
Dimensions	L: 250 mm W: 125 mm H: 30 mm D: 150 mm

586104

### UP-box for DIGISystem desktop paging microphone DIGIST09



Flush mount box for DIGISystem desktop call stations with a lockable 9-pin Sub-D socket connector including an EMI/RFI filter. Quick coupling with spring clips. The outlet may be configured either vertically or at a 30° tilt. Pure white and complete with GIRA system 55-fitting uniframe. Intended for use with surface mount housing (Part No. 581329).

583371.21

## Mains Switching Unit MSU



### Features

- Approved as per EN 54-16
- Three 18 A overload switch with control contacts and indicator light
- For maintenance purposes IEC and Ethernet port for connecting a service PC
- The three terminals for auxiliary change-over per overload switch
- Up to four devices can be connected per overload switch
- Plastic cover of the keys

### VdS approval: G 210122

### Part of EN 54-16 approval

The power panel MSU is used to secure the power supply of all VARIODYN D1 components that are installed in a cabinet. In addition, it offers a connector for connecting a service PC for local / network-wide maintenance purposes.

Each of up to three phases that will be charged max. 18 A. The overload switch automatically releases the current, but can also be used for manual switching of the power supply.

The operating state is indicated by green indicator lights. The switch position can be evaluated via auxiliary contacts. A front-mounted 230 V mains connector and an RJ45 jack are provided for connecting a service PC.

### Technical Data

#### Thermal Protection:

Rated current	18 A
Operating life	10.000 cycles
Shutdown	1-pole

#### Auxiliary Contacts:

Type	Changeover contact
Contact load AC	250 V, max. 4 A
Contact load DC	24 V, max 4 A

#### Common technical data:

Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non condensing)
Weight	approx. 4.2 kg
Dimensions	W: 483 mm H: 44 mm D: 345 mm (1 HU, 19")
Declaration of Performance	DoP-20997130701

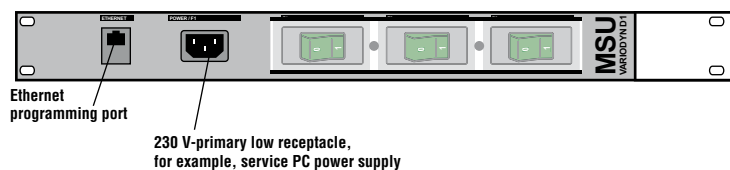
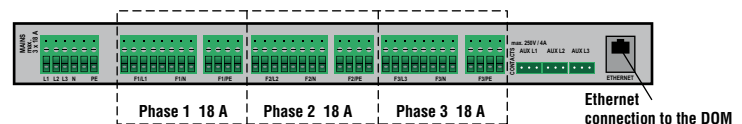


This unit does not protect against neutral conductor interruption. If this is not done on customer side, you need to include accessory Part No. 584970 and 584971. An electrical professional is needed to connect this item to mains power.

### Accessories

583703

Mounting set 1



MSU rear view and front view

584970

## Undervoltage and neutral supervision module



To monitor the neutral conductor and protect the VAPA system in case of loss of the neutral conductor. Only together with 584971.

### Accessories

584970

Contactors 3x25 A

584971

## Contactors 3x25 A



583381.22

## System Communication Unit SCU



### Features

- EN 54-16 certified
- Digital audio memory for VARIODYN D1
- Networkable via Ethernet
- Can be used for the logging and recording of announcements
- Automatic buffer and repetition of interrupted announcements
- 24 V DC emergency power supply

### VdS approval: G 210122

### Part of EN 54-16 approval

The System Communications Unit serves as a digital audio memory for the VARIODYN D1 system. It is possible to record and playback multiple audio data streams simultaneously.

The connection to the other VARIODYN D1 modules is made via the Ethernet, and is permanently monitored.

The audio storage for critical evacuation alerts and notifications is done in accordance with IEC EN 60849 in a non-volatile flash memory. Depending on the format, storage capacity is approx. two hours.

Additional prerecorded audio messages such as announcements, signals, or commercial texts are stored on a hard disk. Depending on the format, storage capacity here is approx. 1000 hours.

The SCU can also be used for the logging and recording of announcements. These are also stored in the memory, and logged with date, time, and activation details. The automatic buffer makes it possible to transmit announcements that cannot be played to all targets as soon as these targets become available.

### Connections

- Ethernet connection 100 Mbit/s
- Network connection
- 24 V DC emergency input

### Displays

- POWER-LED, HARDDISK-LED
- ERROR-LED, STAND-ALONE-LED

### Note:

Not for safety-related voice messages, these must be stored in the DOM.

### Technical Data

#### Emergency power supply:

Rated voltage	24 V DC
Power consumption	24 W

#### Common technical data:

Rated voltage	90 ... 265 V AC
Rated frequency	47 ... 63 Hz
Flash memory	approx. 2 h
Hard drive capacity	approx. 1000 h
Ambient temperature	-5 °C ... 45 °C
Air humidity	15 ... 90 %
Color	gray, similar to RAL 7016
Weight	approx. 3 kg
Dimensions	W: 483 mm H: 44 mm D: 360 mm (1 HU, 19")
Declaration of Performance	DoP-20997130701



Replacement: 583381.31

### Accessories

583486	Patch cable CAT5, 1 m yellow (ETH)
583487	Patch cable CAT5, 2 m yellow (ETH)
583488	Patch cable CAT5, 3 m yellow (ETH)
583703	Mounting set 1

583381.31

## System Communication Unit SCU



### Features

- EN 54-16 certified
- Digital audio memory for VARIODYN D1
- Networkable via Ethernet
- Can be used for the logging and recording of announcements
- Automatic buffer and repetition of interrupted announcements
- 24 V DC emergency power supply

### Part of EN 54-16 approval

The System Communications Unit serves as a digital audio memory for the VARIODYN D1 system. It is possible to record and playback multiple audio data streams simultaneously.

The connection to the other VARIODYN D1 modules is made via the Ethernet, and is permanently monitored.

The audio storage for critical evacuation alerts and notifications is done in accordance with IEC EN 60849 in a non-volatile flash memory. Depending on the format, storage capacity is approx. two hours.

Additional prerecorded audio messages such as announcements, signals, or commercial texts are stored on a hard disk. Depending on the format, storage capacity here is approx. 1000 hours.

The SCU can also be used for the logging and recording of announcements. These are also stored in the memory, and logged with date, time, and activation details. The automatic buffer makes it possible to transmit announcements that cannot be played to all targets as soon as these targets become available.

### Connections

- Ethernet connection 100 Mbit/s
- Network connection
- 24 V DC emergency input

### Displays

- POWER-LED, HARDDISK-LED
- ERROR-LED, STAND-ALONE-LED

### Note:

Not for safety-related voice messages, these must be stored in the DOM.

### Technical Data

#### Emergency power supply:

Rated voltage	24 V DC
Power consumption	24 W

#### Common technical data:

Rated voltage	90 ... 265 V AC
Rated frequency	47 ... 63 Hz
Flash memory	approx. 2 h
Hard drive capacity	approx. 1000 h
Ambient temperature	-5 °C ... 45 °C
Air humidity	15 ... 90 %
Color	gray, similar to RAL 7016
Weight	approx. 3 kg
Dimensions	W: 483 mm H: 44 mm D: 360 mm (1 HU, 19")
Declaration of Performance	DoP-20997130701

### Accessories

583486	Patch cable CAT5, 1 m yellow (ETH)
583487	Patch cable CAT5, 2 m yellow (ETH)
583488	Patch cable CAT5, 3 m yellow (ETH)
583703	Mounting set 1

583331.21

Universal Interface Module UIM



## Features

- EN 54-16 certified
- Two analog audio inputs/outputs
- 48 contacts freely programmable as inputs and outputs
- Digital Audio link (DAL) to DOM

**VdS approval: G 210122**

**Part of EN 54-16 approval**

The universal interface module serves as the interface module of the VARIODYN D1 public address system for connecting two analog audio inputs, two analog audio outputs, as well as 48 control contacts. For eight control contacts, short-circuit and interruption monitoring can be activated.

The UIM is connected to the VARIODYN D1 module DOM via the DAL bus.

It digitizes two analog audio inputs, i.e. from a CD player or a hazard detection system, and transmits the digitized audio data to the VARIODYN D1 module DOM via the DAL bus. In order to transmit all played messages to an external device, for instance, two outputs are available as analog audio sources. The 48 contacts can serve as contact inputs or as contact inputs. This allows for an external control of the VARIODYN D1 system, and information about the status of the system is made available.

## Technical Data

### Audio output:

Nominal level	0 dBu
Transmission range	20 ... 22000 Hz
Harmonic distortion at nominal level	< 0.05 %
Output impedance	200 Ω / 200 Ω (XLR / Cinch, potential free)

### Audioinput:

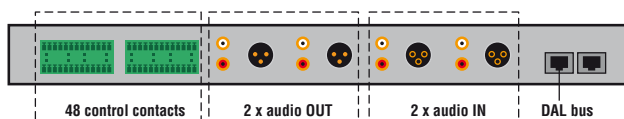
Nominal level	0 dBu
Transmission range	20 ... 22000 Hz
Harmonic distortion at nominal level	< 0.05 %
Load impedance	100 kΩ / 1 kΩ (XLR / Cinch, potentialfrei)

### Common technical data:

Current consumption @ 24 V DC	< 150 mA
Inputs	max. 36 V DC
Outputs	36 V DC/50 mA
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 % (non condensing)
Weight	approx. 3.6 kg
Dimensions	W: 483 mm H: 44 mm D: 345 mm (1 HE, 19")
Declaration of Performance	DoP-20997130701

## Accessories

583401.21	Signal cable12 for UIM
583481	Patch cable CAT5, 1 m blue (DAL)
583482	Patch cable CAT5, 2 m blue (DAL)
583483	Patch cable CAT5, 3 m blue (DAL)
583703	Mounting set 1
583332	Overvoltage protection module for UIM-contacts



UIM rear view and front view

583332

### Overvoltage protection for UIM contacts


**VdS approval: G 210122**
**Part of EN 54-16 approval**

The UIM has 48 contact inputs or outputs. These inputs and outputs are divided into 4 blocks, each with 12 pieces.

In EN 54-16 compliant systems, to connect cables, which head to the external contacts and are longer than 3 m, the crowbar circuit protection module should be used. With Crowbar circuit module, in each case, 12 inputs and outputs (1 Block) are fused. It is then used instead of the signal cable 12 (Part No. 583401.21) A connection cable is included in shipping.

#### Technical Data

Declaration of Performance

DoP-20997130701

583351

### View Control Module VCM


**VdS approval: G 210122**
**Part of EN 54-16 approval**

The VCM was added to the VARIODYN D1 system in accordance with the requirements for EN 54-16 approval. It enables the standardized display of collective messages and has a 5-button operator control panel. At least one VCM is required for EN 54-16 systems. If several upright cabinets are set up directly side-by-side in a room and form a single system, one VCM per room is sufficient. Remotely positioned cabinets require a separate VCM each. The VCM is connected directly to a UIM and 24 V DC. The max. 3 DOMs in the cabinet in which the VCM is located are also connected to three separate VCM inputs. All other DOMs are linked via Ethernet. The VCM can be programmed easily and conveniently using a macro in the "Designer" programming software.

#### Technical Data

Current consumption @ 24 V DC  
Declaration of Performance

approx. 10 mA  
DoP-20997130701

583341.21

## Contact Interface Module CIM



### Features

- EN 54-16 certified
- Contacts as inputs or outputs freely programmable /4 of which can be monitored
- CAT5 cabling to DOM
- Mounting by mounting to the DIN-track possible
- Connection of different trades possible via CIM

**VdS approval: G 210122**

**Part of EN 54-16 approval**

The CIM is used as an interface of VARIODYN D1 system for the connection of 8 control contacts. The 8 control contacts can be configured as either an input or an output. Four of the eight contacts can be programmed in the input function with monitoring of connection line. A 3 m long Cat 5 cable is included to connect from CIM to the TWI input of DOM.

### Technical Data

Inputs	max. 36 V
Outputs	36 V DC / 50 mA
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 %
Weight	approx. 310 g
Dimensions	W: 105 mm H: 40 mm D: 105 mm
Declaration of Performance	DoP-20997130701



Control contacts are listed as open-collector.

## X-MAP04

**NEW**



### Features

- Two independent audio outputs for DVD / USB / SD and FM / AM Tuner
- Two independent volumes can be set
- A combined audio output

## DVD/CD/MP3/FM/AM audio player

The X-MAP04 audio device features an integrated DVD/CD player, an MP3 player and an FM/AM tuner, as well as an USB/SD interface. The device supports two modes of operation. Mode of operation 1: DVD/USB/SD and FM/AM tuner can be operated simultaneously via two separate ports. Mode of operation 2: DVD/USB/SD and FM/AM tuner can be switched. The selected signal is transmitted via a joint port. DVD videos and JPEG are supported. The connection to the VARIODYN D1 system is done via a cinch audio link. Suitable for 24-hour operation.

### Technical Data

#### DVD/CD/Audio:

Output voltage	2 V DC $\pm$ 0,2 V
Harmonic distortion at nominal level	< 0.05 %
Signal-to-noise ratio	> 80 dB
Channel separation	> 75 dB

#### Tuner:

Frequency band AM	531 ... 1710 kHz
Frequency band FM	87,5 ... 108 MHz

#### Common technical data:

Rated voltage	230 V AC
Power consumption	13 W
Inputs	FM 75 $\Omega$ , USB-Port, SD-Port
Outputs	1 x Cinch for FM/AM-Tuner, 1 x Cinch for DVD/USB/SD, 1 x Cinch for mixed signals
Weight	approx. 3.8 kg
Dimensions	W: 482 mm H: 44 mm D: 252 mm (1 HU)

The emergency power supply is certified according to the standard EN 54-4 (A2), which is mandatory since August 2009 for emergency power supply of voice alarm systems. Which battery capacity and the number of devices are required to operate voice alarm system, depends on the required buffer time, power, the alarm time etc. To ensure the optimum designing of emergency power supply, simply and efficiently, a calculation tool for VARIODYN D1 emergency power supply is available for you in our service area of our website as a file to download.



All batteries must be ordered in pairs!

## 581722

**NEW**



### Features

- Emergency power supply in the 1 HU enclosure
- Outputs for control devices such as DOM or Comprio net
- 8 individually fused high power outputs for output amplifiers, each with 30A max.
- Authorization pursuant to EN 54-4(A2)
- LED displays and display for status reports
- Potential-free contacts for the transmission of alarm messages
- Battery capacity up to a total of 320 Ah
- Maximum output 186 A

## Emergency power supply PSU 24 V-2

### Part of the EN 54-16 approval

Emergency manager for use as emergency power supply of an Voice Alarm – application.

#### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Output current	max. 186 A (battery)
Battery capacity	max. 320 Ah
Emergency power supply	24 V DC
Ambient temperature	-5 °C ... 40 °C
Storage temperature	-40 °C ... 85 °C
Weight	approx. 5.2 kg
Dimensions	W: 483 mm H: 45 mm D: 328 mm



2 batteries of the same kind are required for each emergency power supply.



Delivery time on request.

#### Accessories

581730	Battery for emergency power supply 12 V / 105 Ah
581731	Battery for emergency power supply 12 V / 150 Ah

## 581723

**NEW**



### Features

- Emergency power supply in the 2 HU enclosure
- Outputs for control devices such as DOM or Comprio net
- 1 individually fused high power outputs for output amplifiers (12 outputs in total but one output cannot be used)
- Authorization pursuant to EN 54-4(A2)
- LED displays and display for status reports
- Potential-free contacts for the transmission of alarm messages
- Battery capacity up to a total of 640 Ah
- Maximum output current in case of emergency power situation 372 A

## Emergency power supply PSU 24 V-4

### Part of the EN 54-16 approval

Emergency manager for use as emergency power supply of an Voice Alarm – application.

#### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Output current	max. 372 A (battery)
Battery capacity	max. 640 Ah
Emergency power supply	24 V DC
Ambient temperature	-5 °C ... 40 °C
Storage temperature	-40 °C ... 85 °C
Weight	approx. 8.8 kg
Dimensions	W: 483 mm H: 89 mm D: 328 mm



2 batteries of the same kind are required for each emergency power supply.



Delivery time on request.

#### Accessories

581730	Battery for emergency power supply 12 V / 105 Ah
581731	Battery for emergency power supply 12 V / 150 Ah

581724

**NEW**



#### Features

- Emergency power supply in the 1 HU enclosure
- Outputs for control devices such as DOM or Comprio net
- 6 individually fused high power outputs for output amplifiers
- Authorization pursuant to EN 54-4(A2)
- LED displays and display for status reports
- Potential-free contacts for the transmission of alarm messages
- Battery capacity up to a total of 320 Ah
- Maximum output current in case of emergency power situation 186 A
- Ethernet interface for reading service information

### Emergency power supply PSU 24 V-2 net

#### Part of the EN 54-16 approval

Emergency manager for use as emergency power supply of an Voice Alarm – application. This version offers in addition to the Part No. 581722 an Ethernet interface for reading service information in addition over USB via Ethernet.

#### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Output current	max. 186 A (battery)
Battery capacity	max. 320 Ah
Emergency power supply	24 V DC
Ambient temperature	-5 °C ... 40 °C
Storage temperature	-40 °C ... 85 °C
Weight	approx. 5.2 kg
Dimensions	W: 483 mm H: 45 mm D: 328 mm



2 batteries of the same kind are required for each emergency power supply.



Delivery time on request.

#### Accessories

581730	Battery for emergency power supply 12 V / 105 Ah
581731	Battery for emergency power supply 12 V / 150 Ah

581725

**NEW**



#### Features

- Emergency power supply in the 2 HU enclosure
- Outputs for control devices such as DOM or Comprio net
- 1 individually fused high power outputs for output amplifiers (12 outputs in total but one output cannot be used)
- Authorization pursuant to EN 54-4(A2)
- LED displays and display for status reports
- Potential-free contacts for the transmission of alarm messages
- Battery capacity up to a total of 640 Ah
- Maximum output current in case of emergency power situation 372 A
- Ethernet interface for reading service information

### Emergency power supply PSU 24 V-4 net

#### Part of the EN 54-16 approval

Emergency manager for use as emergency power supply of an Voice Alarm – application. This version offers in addition to the Part No. 581722 an Ethernet interface for reading service information in addition over USB via Ethernet.

#### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Output current	max. 372 A (aus Akku)
Battery capacity	max. 640 Ah
Emergency power supply	24 V DC
Ambient temperature	-5 °C ... 40 °C
Storage temperature	-40 °C ... 85 °C
Weight	approx. 8.8 kg
Dimensions	W: 483 mm H: 89 mm D: 328 mm



2 batteries of the same kind are required for each emergency power supply.



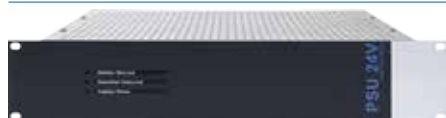
Delivery time on request.

#### Accessories

581730	Battery for emergency power supply 12 V / 105 Ah
581731	Battery for emergency power supply 12 V / 150 Ah

## 581721

## Emergency power supply 24 V / 150 A



### Features

- Emergency power supply in 1 HU housing
- 3 individually fused outputs for control devices (DOM)
- 6 individually fused high power outputs for power amplifiers
- Approval according to EN 54-4 (A2)
- LED indicators for power, battery, consumer
- Potential free contacts for forwarding of error messages
- Battery capacity up to 225 Ah
- Maximum output 150 A

### Part of EN 54-16 approval

Emergency manager for use as emergency power supply of an Voice Alarm – application.

### Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz
Output voltage	24 V DC
Output current	max. 150 A
Ambient temperature	-5 °C ... 45 °C (at 100 % load)
Storage temperature	-25 °C ... 85 °C
Air humidity	0 ... 95 % (non-condensing)
Weight	approx. 6 kg
Dimensions	W: 483 mm H: 88 mm D: 395 mm (2 HU, 19")



2 batteries of the same kind are required for each emergency power supply.

### Accessories

581730	Battery for emergency power supply 12 V / 105 Ah
581731	Battery for emergency power supply 12 V / 150 Ah

## 581730

## Battery for emergency power supply 12 V/105 Ah



### Features

- Optimized for using in 19"-cabinets
- Front terminal

Emergency battery for usage in emergency power supply of Voice Alarm applications.

### Technical Data

Weight	approx. 32.5 kg
Dimensions	L: 502 mm W: 111 mm H: 236 mm

## 581731

## Battery for emergency power supply 12 V/150 Ah



### Features

- Optimized for using in 19"-cabinets
- Front terminal

Emergency battery for usage in emergency power supply of Voice Alarm applications.

### Technical Data

Weight	approx. 49.5 kg
Dimensions	L: 552 mm W: 110 mm H: 288 mm

## 581732

## Battery 12 V / 65 Ah



Emergency battery for usage in emergency power supply of Voice Alarm applications. Required per 2 pieces.

### Technical Data

Weight	approx. 21.3 kg
Dimensions	W: 348 mm H: 178 mm D: 163 mm

## 583535



### Features

- Two supervised relay outputs for the system VARIODYN D1, for connection of optical alarms
- Per relay output can be connected up to 10 visual alarm (Applicable types see accessories)
- Per DOM / UIM or Comprio can be connected up to 4 alarm transponder

## Alarm transponder VARIODYN D1

The alarm transponder for VARIODYN D1 provides each 2 supervised relay outputs for optical alarm signaling devices to provide alarms to people in very noisy areas or to deaf people. It works independently, is driven by the VARIODYN D1 and this message to the VARIODYN D1 is reported in case of failure of the relay line.

The transponder is installed with in the cabinet of VARIODYN D1.

For the installation of the alarm transponder for VARIODYN D1, the following case is optionally available:

-788603.10 (For DIN rail mounting in the enclosure cabinet or stand)

The power supply of the alarm transponder via the system's 24 V DC.

The alarm transponder is attached to the DOM and UIM or VARIODYN D1 Comprio.

Per relay line can be connected up to 10 visual alarm of the series Part No. 766410 ... 766 414 or the series Part No. 766420.

The visual alarm, refer to the latest fire detection technology catalog.

### Technical Data

Operating voltage	10 ... 28 V DC
Contact load relay	30 V DC / 1 A
Ambient temperature	-10 °C ... 50 °C
Storage temperature	-25 °C ... 75 °C
Weight	approx. 28 g
Dimensions	W: 82 mm H: 72 mm D: 20 mm

### Accessories

788603.10	Top-hat rail mounting
766411...766414	Optical alarm signaling device
766420...766424	Optical alarm signaling device

## 788603.10



## Module housing for top-hat mounting rail

For snap-on mounting rail of several electronic modules with 82 x 72 mm PCB size. Angled cable entry.

### Technical Data

Color	green
-------	-------



1 x UM-profile and 2x side panels



Application example with transponder Part No. 583535

581310

## Measuring microphone for D1 AVC in a 5" recessed ceiling housing



### Features

- Decoupled mounting in a ceiling loudspeaker housing
- Easy and quick installation

System-tested sensing microphone for automatic volume control (AVC) of the VARIODYN D1 system. This decoupled sensing microphone is mounted in a 5" ceiling loudspeaker (DL 130 construction, incl. fire dome) flush and invisibly inside the ceiling. Connection is accomplished by means of an enclosed 3-pole XLR plug.

### Technical Data

Transmission range	20 ... 16000 Hz
Sensitivity	2.5 mV
Sound level	max. 157 dB
Impedance	2000 Ω
Ambient temperature	-10 °C ... 55 °C
Weight	approx. 1 kg
Dimensions	Ø: 180 mm D: 135 mm



581316

## Microphone P4, for AVC



Microphone for using the AVC functionality (Automatic volume control) of the DOM. The microphone is installed in the affected area and via the XLR socket (Part No. 581320) to the appropriate DOM input.

### Technical Data

Transmission range	20 ... 16000 Hz
Sensitivity	2.5 mV
Sound level	max. 157 dB
Impedance	2000 Ω
Weight	approx. 400 g

581317

## Mounting kit for microphone P4

Mounting kit for ALR microphone Part No. 581316.

581320

## Flush-mounted XLR panel jack



Flush-mounted box with a XLR socket 3-pole / GIRA System 55.

### Technical Data

Color	pure white / silk-mat
-------	-----------------------

### Accessories

581329	Surface mount
--------	---------------

581329

## Surface mount box



Surface mount frame for the Part No. 581320 to 581323 / GIRA System 55.

### Technical Data

Color	pure white / silk-mat
-------	-----------------------



Delivery time on request

583496

## End-of-Line module EOL



### Features

- Approved as per EN 54-16
- Standard monitoring
- Final element for 100 V of loudspeaker line in 2-wire technology
- Different connection possibilities for optimum line adaptation (3 connections)
- The module is sealed and has therefore an optimum humidity protection

**VdS approval: G 210122**

**Part of EN 54-16 approval**

End-of-line module for the end of the VARIODYN D1 voice alarm system loudspeaker line for standard-compliant monitoring, when more than 20 loudspeakers are connected to a line. The module is connected to the final loudspeaker at the end of the line.

Independent of the number and the output of the connected loudspeakers.

### Technical Data

Weight	approx. 20 g
Dimensions	L: 40 mm W: 29 mm D: 11 mm
Declaration of Performance	DoP-20997130701

583386.21

## Adapter TWI-RS232



### Features

- Approved as per EN 54-16

**VdS approval: G 210122**

**Part of EN 54-16 approval**

The TWI-RS232 adaptor serves for implementing of the TWI bus on RS232. Use for special servicing and connecting an external system (e.g., a FACP IQ8Control or FlexES Control).

The TWI-RS232 adapter is connected directly to the DOM.

### Technical Data

Color	black
Weight	approx. 45 g
Dimensions	L: 65 mm W: 33 mm H: 16 mm
Declaration of Performance	DoP-20997130701

583387.21

## Time Control Module TCM GPS



### Features

- EN 54-16 certified
- Module for time synchronization of entire VARIODYN D1 system
- Can be connected to any DOM in the system
- via GPS signal synchronization
- Activation on the system via pre-installed cable (included)

**Part of EN 54-16 approval**

This module is used for the time synchronization of a VARIODYN D1 alarm/evacuation system via GPS (Global Positioning System). The exact time is then transmitted to all other networked DOMs via one DOM which is time-synchronized with the TCM-GPS (Time Control Module TCM GPS). This facilitates precisely timed, automated announcements (e.g. the recess bell in schools) timed volume adjustment (e.g. night-mode in railway stations) or simply just precisely-timed documentation of announcements or fault alarms.

### Connection

The module is either connected directly to the I2C interface via a standard CAT5 cable (max. 10m) or connected to the 9 pin Sub-D jack of a DOM with the included adapter cable.

### Monitoring

Both disconnections of the module as well as of the satellite reception is recorded.

### Technical Data

Dimensions	W: 55 mm H: 25 mm D: 115 mm
Declaration of Performance	DoP-00376130701



Incl. pre-installed cable

583390

## Master clock SC 98.47 pro



### Features

- Security by PIN coding
- Illuminated display

Main clock for the implementation of DCF77 time controls in the VARIODYN D1 system. The main clock connected to the VARIODYN D1 system via UIM (Part No. 583331.21). With the radio receiver (Part No. 583391) a DCF77-time synchronization of the main clock can be carried out. DCF77 is available in Europe only (outside Germany the availability depends.)

### Control center / signal clock

- 4 switching circuits or signal circuits
- Daily, Weekly and Yearly programs
- 300 Memory places
- Switch functions ON, OFF or Impulse
- The shortest switch distance 1 minute (or 1 sec. with impulse)
- Switch achievement 10 A per channel
- Free block building of weekdays and switch functions
- Programmable without main connection (over keyboard or with data key)
- Option: PC programmable

583391

## Wireless receiver FU 20.00 pro



### Features

- Receipt of the DCF77 telegram time and date are automatically read into the programmable time switches
- Summertime conversion via the DCF telegram
- Indicator light flashes when receiving
- Ease of assembly, casing swiveling in the mounting bracket
- Supply line: 2-wire, unshielded, any cross-section
- max. length of pipe between FU 20.00 per and SC 98.47 per 200 m

DCF77 Radio receiver for connecting to the main clock (Part No. 583390). It can be connected up to 10 main clocks at a time.

The DCF77 signal is sent from Mainflingen (at Frankfurt am Main). The range of the signal for the receiver FU 20.00 per 1500 kilometers is under normal conditions.

583392

FO switch for Ethernet ring, multimode



## Features

- EN 54-16 certified
- 6 Ethernet-connections
- Relay for redirecting a faulty message contact load 24 V DC / 1 A
- 2 Duplex-SC-LWL-connections

## Standards

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX/FX
- IEEE 802.1p Priority Support
- IEEE 802.1d Spanning Tree Protocol
- IEEE 802.1w Rapid Spanning Tree
- IEEE 802.1q VLAN Tagging

**VdS approval: G 210122**

**Part of EN 54-16 approval**

The LWL switch is used for designing an Ethernet network in loop topology. On account of the loop structure, the network is fully redundant since, in the case of an LWL fiber rupture, it is possible to still communicate through the other side of the loop. In addition, every switch has two operating voltage inputs (24 V DC) and one relay for the forwarding of fault signals.

## Technical Data

Operating voltage	12 ... 48 V DC
Power consumption	6 W
Data transmission speed	14880 / 148800 bps (Ethernet / Fast Ethernet)
Transmission distance	max. 2 km
Fiber	Multimode 50/125 µm, 62,5/125 µm
Ambient temperature	0 °C ... 60 °C
Type of protection	IP30
Dimensions	W: 54 mm H: 135 mm D: 105 mm
Declaration of Performance	DoP-20997130701

583393

FO switch for Ethernet ring, single mode



## Features

- EN 54-16 certified
- 6 Ethernet-connections
- Relay for redirecting a faulty message contact load 24 V DC / 1 A
- 2 Duplex-SC-LWL-connections

**Part of EN 54-16 approval**

Same as Part No. 583392 but for single mode fiber 9/125 µm and 10/125 µm.

## Technical Data

Operating voltage	12 ... 48 V DC
Power consumption	6 W
Transmission distance	max. 30 km
Fiber	Monomode 9/125 µm, 10/125 µm
Ambient temperature	0 °C ... 60 °C
Type of protection	IP 30
Dimensions	W: 54 mm H: 135 mm D: 105 mm
Declaration of Performance	DoP-00376130701

586115

**Doormaster-Smart-PAL-Telephone interface**


DOORMASTER-SMART-PAL-Telephone interface is used for recording the announcements via similar telephone system in VARIODYN D1 voice alarm system. Up to 4 different call circuits or areas can be addressed using the telephone system. For this purpose 1+ 4 control contacts are available for switching on and/or zone selection.

The connection of telephone interface to VARIODYN D1 takes place via control inputs and audio input of UIM Part. No. 583331.21. 12 V operating voltage can be generated from 24 V emergency power supply with voltage converter Part No. 781336 that is available in the voice alarm system. The voltage converter can be mounted in housing Part No. 788603 on the C-rail in rack.

The programming takes place with MFV post dial, so that the device can also be used from distance.

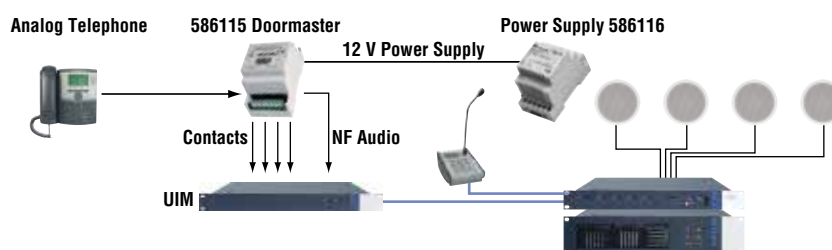
**Technical Data**

Operating voltage	12 V DC
Current consumption @ 12 V DC	approx. 100 mA
Contact load relay	24 V DC/0.5 A (relay 1/2) 24 V DC/1 A (relay 3/4)
Ambient temperature	-5 °C ... 45 °C
Mounting	mounting rail
Dimensions	W: 52 mm H: 89 mm D: 57 mm

**Accessories**

586116

Power supply for telephone interface



586116

**Power supply for telephone interface**


Power supply for telephone interface Part No. 586115.

**Technical Data**

Rated voltage	127 / 230 V AC
Output voltage	13 V AC
Output current	max. 0.6 A

## 583531

## VoIP- or ISDN transmission device



VoIP- or ISDN- transmission unit for devices with analog listening-and speech channels (e.g. radio base stations, loudspeakers, headsets etc.).

### Technical Data

Operating voltage  
Dimensions

18 ... 42 V DC  
W: 109 mm H: 35 mm D: 185 mm

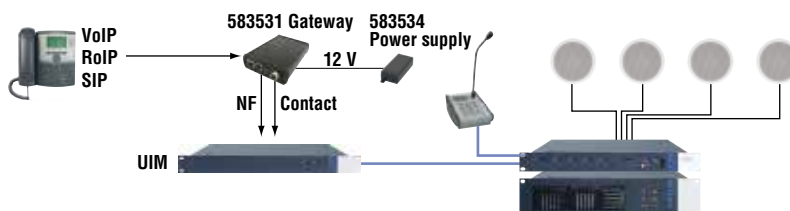
### Features

- Automatic answering service
- Automatic selection
- Sent and received contacts
- Power supply via PoE or ISDN
- Aluminum housing for table-/ wall mounting

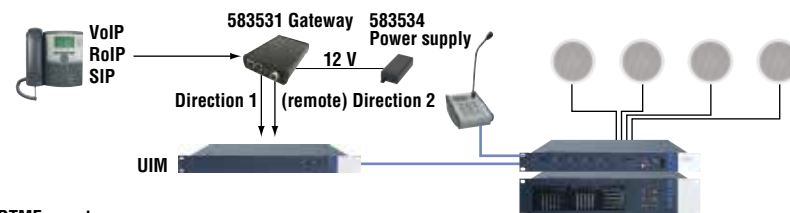
### Accessories

583534

PSE (PoE-Injector 802.3af) for ULE-614



Speech input and contact activation



DTMF remote access

## 583534

## PSE (PoE Injector 802.3af) for 583531



Power supply via the Ethernet cable when no appropriate IP switch is present. Also suitable for power supply to the 583531 in cases of an unpowered ISDN cable 230 V AC, 16 W, incl. network cable with plug and RJ45 patch cable.

# Surge Protection for VARIODYN D1

The following table shows the surge protection modules for voice alarm system VARIODYN D1, according to the line to be protected and the application:

Line to be protected	Protection module	Notes
Mains connection	584100	Adapted for 230 V AC or 380 V AC applications
100 V speaker lines	584101	
Contacts, digital inputs and outputs of the control components as DOM, UIM, CIM, Comprio	584101	
Ethernet	584102	
DAL bus	584102	CAT5 line length up to 250 m



**584100**

**Surge voltage protection module for connection to the mains**



### Approvals KEMA, VDE, UL

Overvoltage protection module to protect the mains connection of a VARIODYN D1 voice alarm system. The overvoltage protection module can be used for 230 V AC or 380 V AC mains connections and can be accommodated with its housing for DIN rail installation quickly and easily in the 19" cabinet.

### Features

- Protect single-phase 230 V AC mains connections
- Protect three-phase 380 V AC mains connections

**584101**

**Surge voltage protection module for loudspeaker cables**



### Approvals KEMA, VDE, UL, VdS, CSA

Overvoltage protection module to protect the 100 V loudspeaker lines of a VARIODYN D1 voice alarm system or of the dry contact or digital inputs and outputs of the control components, such as DOM, UIM, CIM, Comprio. The overvoltage protection module can be housed with its housing for DIN rail installation quickly and easily in the 19" cabinet.

### Features

- Protect 100 V loudspeaker lines
- Protect contact or digital inputs and outputs of the control components, such as DOM, UIM, CIM, Comprio

**584102**

**Surge voltage protection for Ethernet or DAL bus**



### Approvals CSA, UL, GOST

Overvoltage protection module to protect the Ethernet or DAL bus lines of a VARIODYN D1 voice alarm system. The overvoltage protection module can be housed with its housing for DIN rail installation quickly and easily in the 19" cabinet.

### Features

- Protect Ethernet
- Protect DAL bus

**FX808338**

**Expansion housing with 2 DIN rails**



Control panel expansion housing with 2 DIN rails for inserting essernet switches, fiber optic converters, couplers in cap rail enclosures etc. For application-oriented completion and expansion of voice alarm system or fire alarm systems.


## ESSER FACP Interface

583530

### SEI serial essernet interface VARIODYN D1 / FACP



essernet-interface serial for connecting a VARIODYN D1 System to the ESSER fire alarm systems. It has been optimized with respect to the transmission speed and provides optimum comfort in programming, commissioning and service.

 essernet micromodule and interface RS 232 adapter are not received and must be separately ordered according to essernet-Type or the serial mode of transmission.

Replacements in the field of voice alarm for Part No. 784856. This part is still available!

#### Accessories

788606	Housing-kit
772386	Interface module RS232/24 V
772387	Interface module TTY/CL 20 mA
784840.10	essernet micromodule (62.5 kBd)
784841.10	essernet micromodule (500 kBd)

772386

### Interface module RS232 / 24 V



For the serial essernet interface for a length up to 15 m.

788606

### Housing for SEI



Housing for the serial essernet interface (SEI).

784840.10

### essernet module, 62.5 kBd for IQ8Control



Network interface module for max. 16 network participants. Protocol: similar to DIN 19245-1 (Profibus) topology: Ring structure, interruption and short-circuit tolerance

784841.10

### essernet module, 500 kBd for IQ8Control




Network interface module such as essernet module Item no. 784840.10, however for max. 31 network participants.

784856

### SEI serial essernet interface EDP, bidirectional



Same as 784855, but bidirectional with remote control options e.g. for the connection to a Building Management System (BMS)

 The essernet micromodule and the interface module are not included and must be ordered separately, depending on the type of essernet and the serial transmission mode.

#### Accessories

788606	Housing kit
772386	Interface module RS 232/24 V
772387	Interface module TTY/CL 20 mA
784840.10	essernet micromodule (62.5 kBd)
784841.10	essernet micromodule (500 kBd)

## 788603.10

### Module housing for top-hat mounting rail



For snap-on mounting rail of several electronic modules with 82 x 72 mm PCB size. Angled cable entry.



1 x UM-profile and 2x side panels



Application example with transponder Part No. 583535

## 805683

### External power supply DCU 2403



#### Features

- Reversible output voltage 12 V DC or 24 V DC
- Simple integration into esserbus/esserbus-Plus
- Internal service LED displays
- Four floating relay outputs
- Monitoring of mains voltage with selectable delay time
- Individual battery monitoring for emergency power operation
- Switchable ground fault monitoring
- Front door with cover contact
- in compliance with EN 54-4/A2
- for use in voice alarms to supply recessed components, such as at fiber optic recessed callstations



Batteries used in the power supply must be tested and VdS approved. Batteries of the same age from the same manufacturer coming from the same production batch must be used when connecting batteries in parallel.



Pre-installed connector cable for 12 V / 24 Ah SB-type battery (Part No. 018006)

Housing lock with key

Device accessory kit contains: dummy cover, jumper bar for standby terminal, device fuses, jumper for setup of output voltage

#### Accessories

805684.10

Adapter card for DCU 2402

808623

esserbus alarm transponder

## 781336

### DC/DC converter output voltage 12 V DC



#### Features

- Galvanic isolation of DC voltage potentials
- Voltage interface, for instance for 12 V DC operation of couplers in an 8010 Series 3 extinguishing system.
- Connecting terminals up to 1.5 mm<sup>2</sup>
- short-circuit proof



The module can also be used in explosion endangered zones for the galvanic separation of the esserbus voltage supply.

583386.21

Adapter TWI-RS232



## Features

- Approved as per EN 54-16

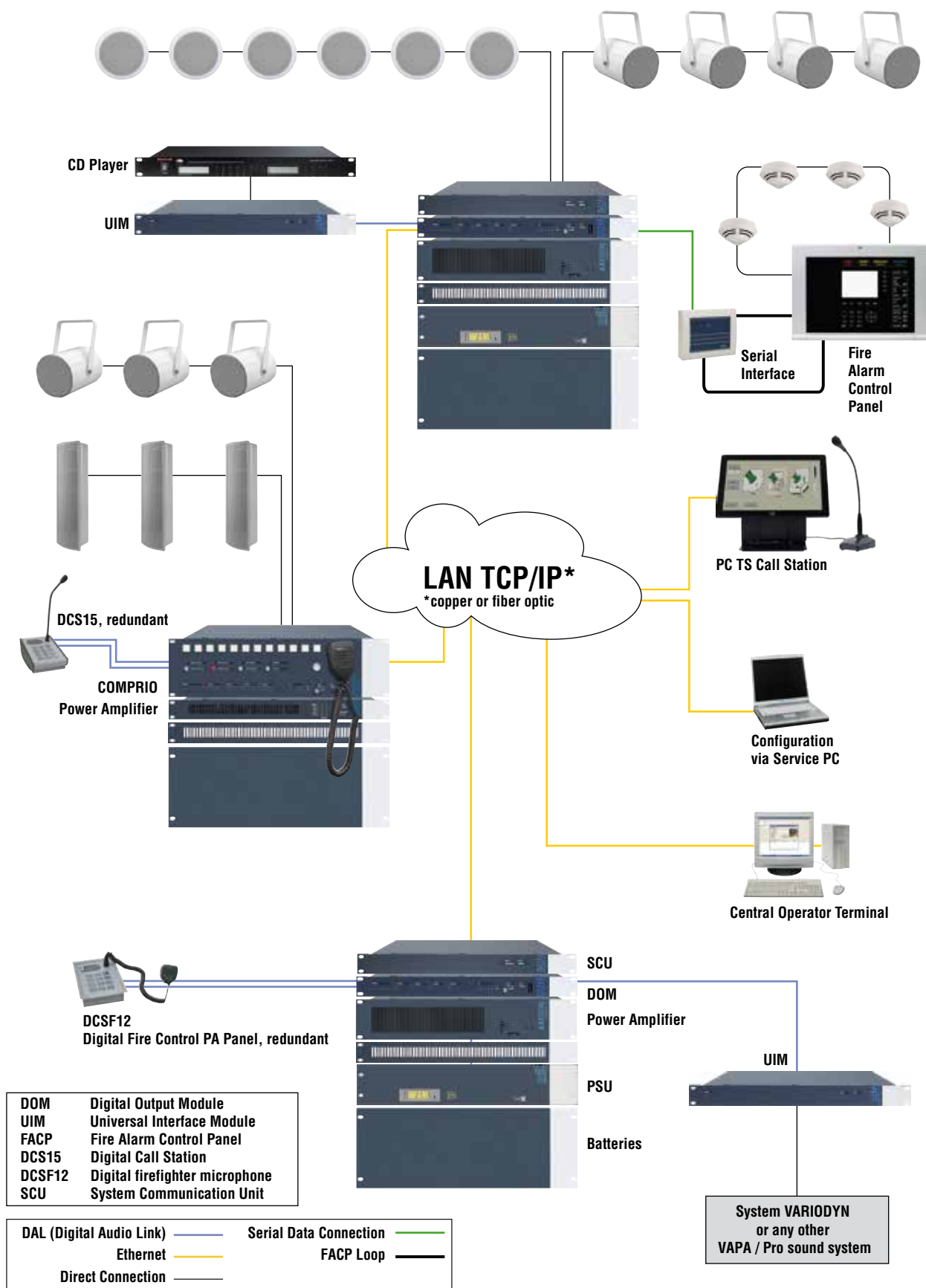
**VdS approval: G 210122**

**Part of EN 54-16 approval**

The TWI-RS232 adaptor serves for implementing of the TWI bus on RS232. Use for special servicing and connecting an external system (e.g., a FACP IQ8Control or FlexES Control).

The TWI-RS232 adapter is connected directly to the DOM.

## ESSER FACP Interface

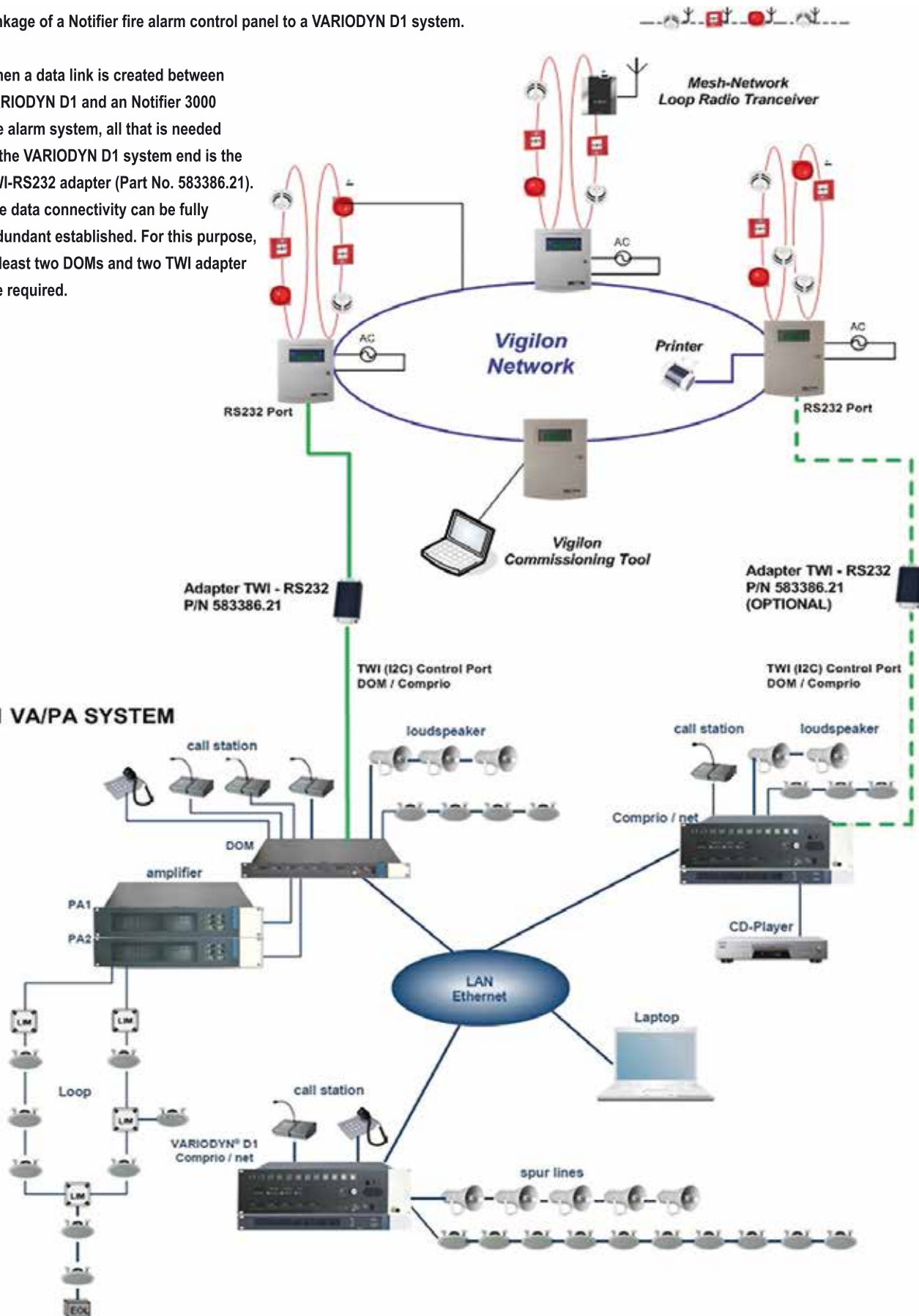


## Gent FACP Interface

Linkage of a Notifier fire alarm control panel to a VARIODYN D1 system.

When a data link is created between VARIODYN D1 and an Notifier 3000 fire alarm system, all that is needed at the VARIODYN D1 system end is the TWI-RS232 adapter (Part No. 583386.21). The data connectivity can be fully redundant established. For this purpose, at least two DOMs and two TWI adapter are required.

## D1 VA/PA SYSTEM



## Features

- Supports also to stream Audio into VARIODYN D1
- Multiple PAMMI Plus clients on a server
- Audio Streaming in VARIODYN D1
- Server computer in a redundant layout, optionally with automatic switching
- Control of VARIODYN D1 and its VARIODYN D1 3000 predecessor system from a control panel
- Interface with various display systems (manufacturer-specific)
- Interface with Automatic Train Control (manufacturer-specific)
- Interface with SCADA (manufacturer-specific)
- Interface with radio and phone via DTMF
- Indicate system status (such as error signals)
- Graphical overview of zones + zone prefixes
- Display of occupied zones
- Setting off standard texts / alarms (in connection with SCU)
- Audio database for announcements
- Assembly of automatic announcements ("Flight LH3434 to Vienna is ready for boarding")
- Multiple languages with variables in different orders
- Scheduler for timed release of announcements (once, multiple times)
- Live announcements (in combination with call station of the VARIODYN D1 with PAMMI Plus)
- Start playing music
- Logging of announcements, error signals, alarms, etc.
- Safe user administration against unauthorized access
- Priority control
- Instant messaging (inclusion of announcement and repeated release)
- Previewing of recordings before release
- Simple and convenient programming, commissioning and use via a Windows user interface

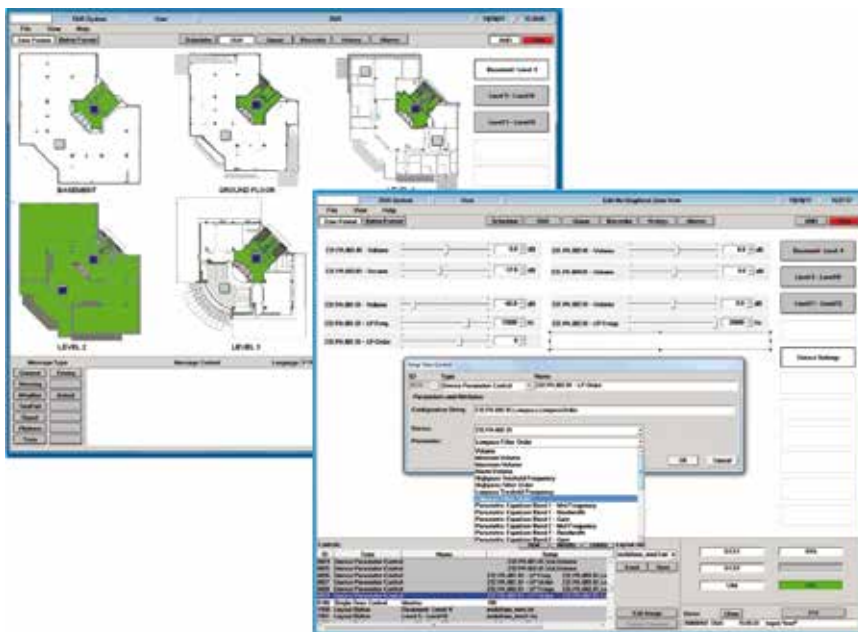
The VARIODYN D1 PAMMI Plus management system: easy and convenient display of VARIODYN D1 system information and for operation and use of the voice alarm and public address system as well. It's installed on a PC running the Windows operating system as a software application and offers optimum flexibility and freedom of control and use.

The graphical user interface can be customized for a particular property, thus being very useful. Whether the customer requires list displays, building plans, or other graphical representations, with PAMMI Plus everything is straightforward and quickly possible.

The entire voice alarm and public address system can therefore be serviced and controlled from one or many locations, thanks to the reliable server/client structure of PAMMI Plus, This represents a great benefit and cost-savings potential to facilities such as airports, train stations, multi-branch industrial plants, hotels, shopping centers, and more.

PAMMI Plus = Public Address Man Machine Interface Plus

This product offers such a wide range of functionalities, that this description can only focus on a fraction of its abilities. Therefore a detailed conversation with one of our specialists in any case is worthwhile.



583651

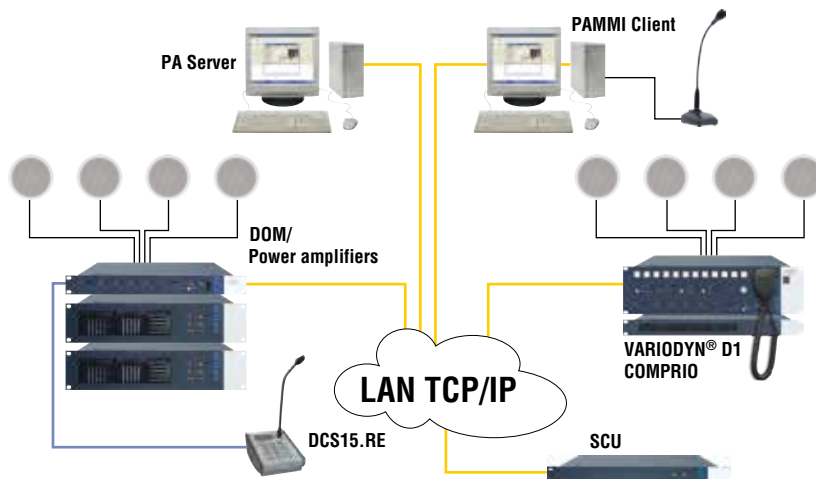
## PAMMI Plus PA server



### Features

- Supports to stream audio into VARIODYN D1
- Checking and monitoring of alarms and evacuation
- Checking and monitoring of announcements and other audio notifications, scheduling of announcements
- Interface to further functions in the facility
- Display and checking of system status of the VARIODYN D1 system
- Software license including USB-Dongle

The PAMMI Plus server applications is the core of the VARIODYN D1 PAMMI Plus Management System. It realizes system control and communication with the components of the VARIODYN D1 voice alarm system and den PAMMI Plus client via Ethernet. The PAMMI Plus server manages and controls, for instance, the announcements and audio information of various PAMMI clients, the timed information. Furthermore, it is often possible to incorporate other systems in the object, such as flight control systems, person information systems, train traffic control systems, or text-to-speech systems into the PAMMI Plus Management System. Apart from our current VARIODYN D1 voice alarm and public address system, existing VARIODYN D1 3000 systems can obviously be incorporated as well. Here too, we are fully downward compatible. Parallel to the PAMMI Plus server, an additional PC can be operated in hot standby mode, to which one can switch, if necessary. This means that we have a fully redundant solution with optimal failure safety.



583652

## PAMMI Plus client



### Features

- Supports to stream audio into VARIODYN D1
- Graphical User Interface
- Checking and monitoring of alarms and evacuation
- Management and control of announcements and other audio information, timing of announcements
- Volume and sound control
- Zone selection
- Logbook for documentation of the listed functions
- Display and checking of system status of the VARIODYN D1 system
- Software license including USB-Dongle

PAMMI Plus client Application is a PC workstation with which the input can be made in PAMMI Plus and the information can be retrieved. PAMMI Plus client is the graphical user interface or the operating station. PAMMI Plus client is connected with PAMMI Plus Server via Ethernet and can be set up in a customer specific way. Many PAMMI Plus clients can be operated with one PAMMI Plus server.

In connection with the call station of VARIODYN D1 system, live announcements and buffered messages with the PAMMI Plus clients can be released or controlled. Thus, the user can e.g. narrate, save and control the message. After controlling, the message can be then be released. This prevents the danger of false announcements or live announcements of bad quality.

583653

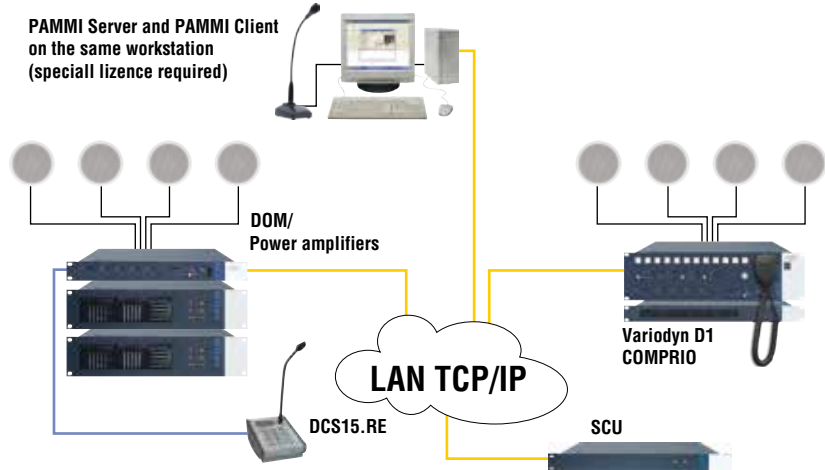
PAMMI Plus server/client



## Features

- Supports to stream audio into VARIODYN D1
- Graphical User Interface
- Checking and monitoring of alarms and evacuation
- Management and control of announcements and other audio information, timing of announcements
- Volume and sound control
- Zone selection
- Logbook for documentation of the listed functions
- Display and checking of system status of the VARIODYN D1 system
- Software license including USB-Dongle

Combination of PAMMI Plus server (Part No. 583651) and client software (Part No. 583652), so that the entire PAMMI Plus Management System can be operated with full functionality on a PC. This software includes the complete functionality of PAMMI Plus server (Part No. 583651) and client (Part No. 583652). Software license including USB-Dongle.



583654

PAMMI Plus server/client small installations

## Features

- Supports to stream audio into VARIODYN D1
- Graphical User Interface
- Checking and monitoring of alarms and evacuation
- Management and control of announcements and other audio information, timing of announcements
- Volume and sound control
- Zone selection
- Logbook for documentation of the listed functions
- Display and checking of system status of the VARIODYN D1 system
- Software license including USB-Dongle

Combination of PAMMI Plus server (Part No. 583651) and client software (Part No. 583652), so that the entire PAMMI Plus Management System can be operated with full functionality on a PC. This software includes the complete functionality of PAMMI Plus server (Part No. 583651) and client (Part No. 583652), but limited network connection to 10 DOM maximum. Software license including USB-Dongle.

583532

PAMMI Plus switchbox WRS D1



Switchover box for redundant operation of a PAMMI Plus management system. Two PAMMI Plus management systems are connected to the switchover box. In the event that one of the two systems fails, the other system is automatically activated.

Our voice alarm system VARIODYN D1 offers the possibility of a data connection to media controls and touch link panels by Extron. We've developed a special driver specifically for this purpose, with which this connection can easily be made. That way projects involving voice alarm systems with media controls can be optimally implemented. It's also possible to perform announcements and VARIODYN D1 operations via a touch link panel.

We ask that you get in touch with our technical support if assistance is needed or desired during implementation or servicing with regard to this connection.

583515

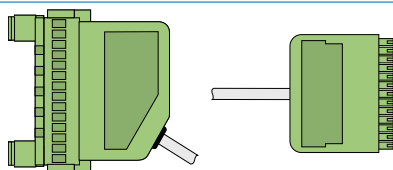
## Extron media control module



Software driver for connection of Extron media control and / or touch link panels.

**583401.21**

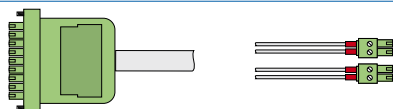
## Control cable 12 for UIM



Prefabricated cabling from 12 control contacts of the UIM to the cabinet rear panel; up to 4 pieces connectable per UIM.

**583422.21**

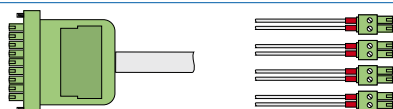
## Backup cable RC 22 VARIODYN D1



Prefabricated cabling of 2 accident channels to 4 user channels

**583444**

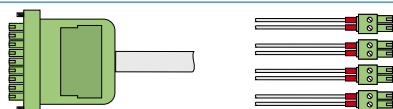
## Backup cable RC 44 VARIODYN D1, 2 m



Prefabricated cabling of 4 auxiliary channels on 4 bearer channels.

**583444.10**

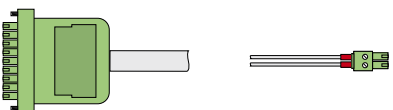
## Backup cable RC 44 VARIODYN D1, 0.5 m



Prefabricated cabling of 4 accident channels on 4 user channels. Short version for Comprio applications.

**583441**

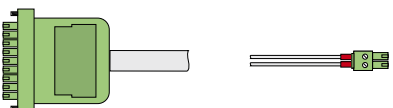
## Backup cable RC 41 VARIODYN D1, 2 m



Prefabricated cabling of a general average channel on 3 user channels, for the 3:1 average in conjunction with a four-channel amplifier 4XD125B (Part No. 580242) or 4XD250B (Part No. 580243).

**583441.10**

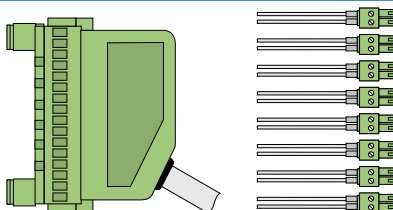
## Backup cable RC 41 VARIODYN D1, 0.5 m



Prefabricated cabling of a general average channel on 3 user channels, for the 3:1 average in conjunction with a four-channel amplifier 4XD125B (Part No. 580242) or 4XD250B (Part No. 580243). Length 2 m. Short version for Comprio applications.

**583451.21**

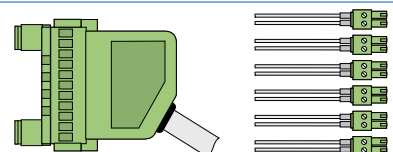
## Cable for cabinet rear panel DOM4-8



Prefabricated cabling of the 100 V outputs of DOM4-8 to the cabinet back wall; per DOM4-8, 1 piece can be connected. Also suitable for the wiring of the switching contacts of the DOM4-X to the cabinet back wall.

**583452.21**

## Cable for cabinet rear panel DOM4-24



Prefabricated cabling of the 100 V outputs of DOM4-24 to the cabinet back wall; per DOM4-24, up to 4 pieces can be connected.

**583476.21**

## Output cable amplifier DOM



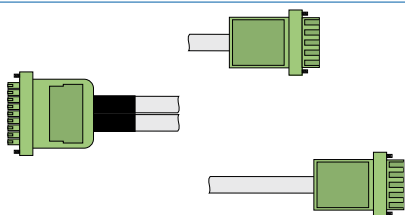
Prefabricated cabling of power amplifiers, 2 channels (max. 100 V) to the DOM.

583477.21

Output cable 2 amplifier DOM

Part of EN 54-16 approval

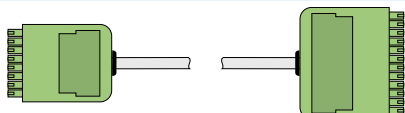
Prefabricated cabling of power amplifiers, 4 channels (max. 100 V) to the DOM.



583471.21

Input cable DOM (G1) - XV amplifier (G1)

Prefabricated cabling from DOM to power output amplifier, 2 channels (LF, control).



583472.21

Input cable DOM (G1) – amplifier (as of G2)

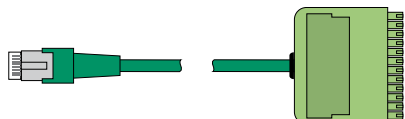
Cable for connecting older 1st generation devices with the current 2nd generation models.



583473.21

Input cable DOM (G1) – amplifier (as of G2)

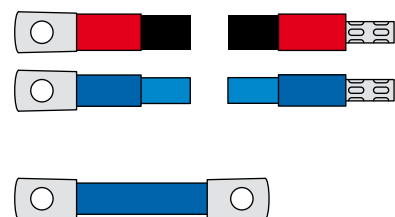
Cable for connecting older 1st generation devices with the current 2nd generation models.



583410

Connection cable battery -PSU

Cable set for connecting batteries to the emergency power supply (Part No. 581721) onto the VARIODYN D1.



583481

CAT5 patch cable, 1 m blue (DAL)



583482

CAT5 patch cable, 2 m blue (DAL)



583483

CAT5 patch cable, 3 m blue (DAL)



583486

CAT5 patch cable, 1 m yellow (Ethernet)



583487

CAT5 patch cable, 2 m yellow (Ethernet)



583488

CAT5 patch cable, 3 m yellow (Ethernet)



583466

Patch cable CAT5, 0.5 m gray (Periphery)



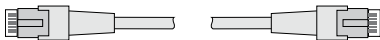
583467

Patch cable CAT5, 1 m gray (Periphery)



583469

Patch cable CAT5, 3 m gray (Periphery)



583489

XLR cable 1 m, plug jack length 1 m



Audio-connection cable with a XLR plug and XLR jack, e.g. for connecting an external audio device to the UIM.

583490

XLR cable 10 m, plug jack length 10 m



Audio-connection cable with a XLR plug and XLR jack, e.g. for connecting an external audio device to the UIM.

583491

Input cable DOM amplifier, 0.5 m green



**Part of EN 54-16 approval**

Prefabricated cable from the DOM to the 2-channel power amplifier. If a 4 channel amplifier is used, this cable is needed two times.

583492

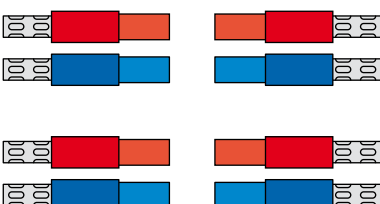
Audio-connection cable length 1.8 m



Audiocable, stereo-Cinch.

583414

Cable set 24 V DC VARIODYN D1 Comprio 4XD

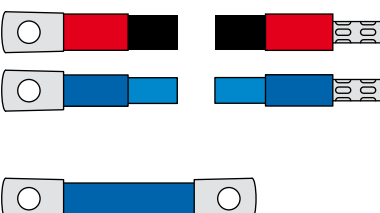


**Part of EN 54-16 approval**

Standard cable set for connecting Comprios to the amplifier 4XD125B or 4XD250B.

583413

Cable set for connecting batteries to VARIODYN D1 4XDxxxB amplifier



**Part of EN 54-16 approval**

Standard cable set for internal housing connection of the batteries to the amplifier 4XD125B or 4XD250B.

581340

## Peripheral clip for top hat rail

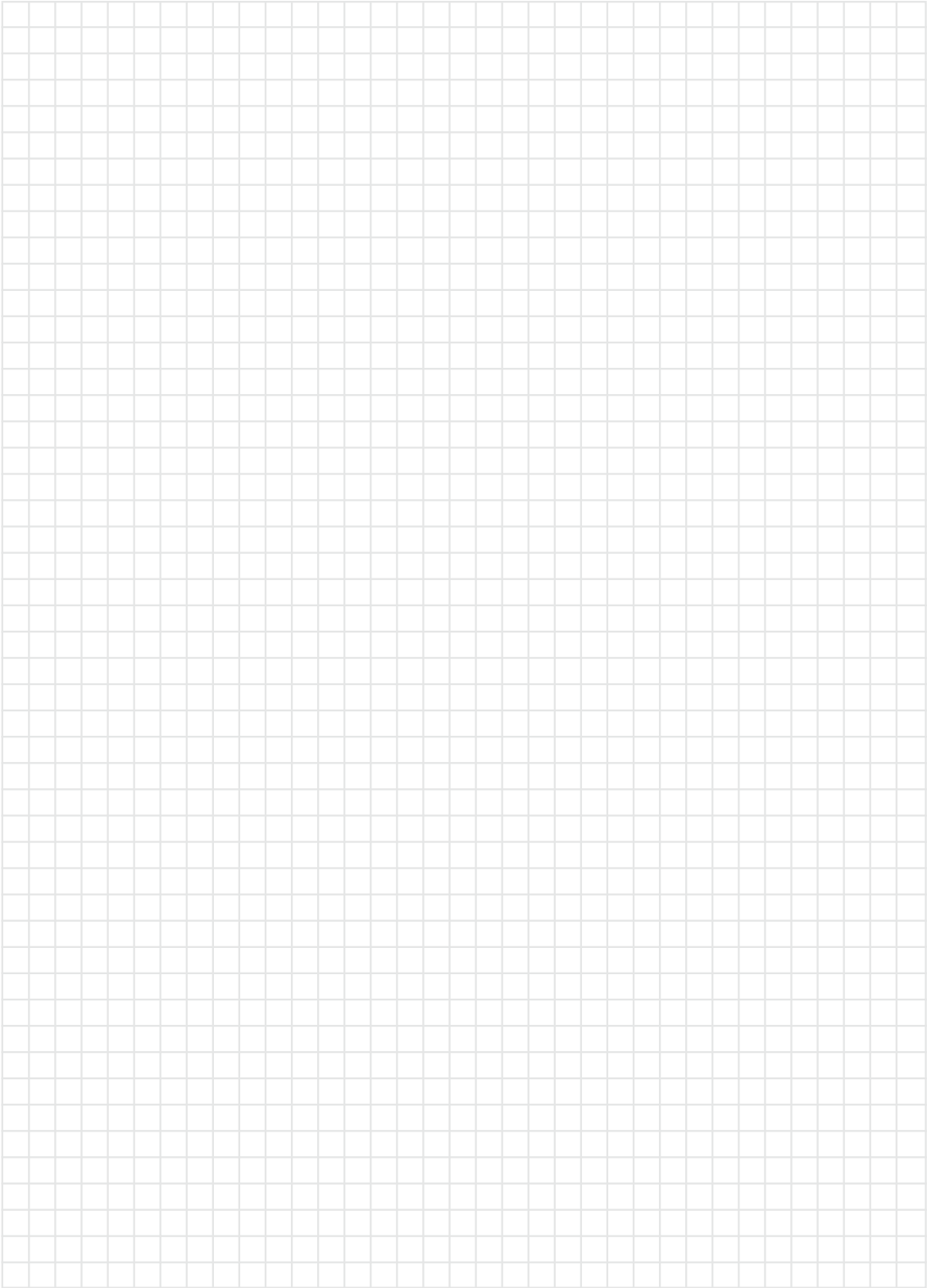


Adapter box to connect peripheral components, such as for example analog microphones, to the VARIODYN D1. The incoming installation cable is connected directly to the installation box. Also, the cable shield of the installation cable can be connected in the adapter box. The output of the adapter box is connected directly via a pluggable power cable (Part No. 583466, 583467 or 583469) with the corresponding input of the VARIODYN D1. The pin assignments for the individual applications are listed in the VARIODYN D1 installation instructions (Part No. 798663).



Please order the cable Part No.583466 or cable Part No. 583468  
For Comprio 12HU  
For cabinet 24 HU, 26 HU, 40 HU, 42 HU







## Loudspeaker EN 54-24

Ceiling Loudspeaker	68-74
Cabinet Loudspeaker	75-77
Horn Loudspeaker	78-79
Sound Projector	80-81
Spherical Loudspeaker	82
Column Loudspeaker	83-84

## Important information on sound pressure level specifications:

In the EN 54 Part 24 product standard, the specification of the sound pressure level is defined in the form of an average bandwidth (frequency range from 88.6 Hz to 11.3 kHz).

This parameter so called Sensitivity which is referred to in EN standards and thus crucial for project planning for loudspeakers. In our catalog you will only find sound pressure level measured according to the EN standards for EN 54-24 loudspeakers.

### LSC-506

**NEW**



### 6 W 5" ceiling loudspeaker EN 54 with fire dome, metal

#### Approval as per EN 54-24, 0359/CPD/00138

This voice alarm ceiling loudspeaker is specifically designed for use in buildings where performance of systems for voice evacuation announcements is governed by regulations. It is designed for flush mounting in suspended ceiling and ideal for even sound distribution. The appearance and neutral white RAL 9003 color have been selected to be unobtrusive in virtually all interiors. The fire dome increases protection of the cable termination. The driver unit is impregnated against moisture. For additional safety, this EN 54-24 ceiling loudspeaker features a ceramic terminal block and a thermal fuse.

#### Technical Data

Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 / 0,75 W
Rated impedance	1,7 / 3,3 / 6,7 / 13 kΩ
Sensitivity EN 54-24, 1 W / 1 m	91 dB
Sensitivity EN 54-24, max 1 m	99 dB
Transmission range	180 ... 20000 Hz (-10 dB)
Dispersion angle	173° (H), 174° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Material	Metal
Color	white, similar to RAL 9003 / red similar to RAL 3000
Weight	approx. 1.29 kg
Cut-out size	(Ø min.) 155 mm
Dimensions	Ø: 181 mm D: 129 mm
Declaration of Performance	CPR-DoP-2013002



Delivery time on request.

### LSC-606

**NEW**



### 6 W 6.5" ceiling loudspeaker EN 54 with fire dome, metal

#### Approval as per EN 54-24, 0359/CPD/00138

This voice alarm ceiling loudspeaker is specifically designed for use in buildings where performance of systems for voice evacuation announcements is governed by regulations. It is designed for flush mounting in suspended ceiling and ideal for even sound distribution. The appearance and neutral white RAL 9003 color have been selected to be unobtrusive in virtually all interiors. The fire dome increases protection of the cable termination. The driver unit is impregnated against moisture. For additional safety, this EN 54-24 ceiling loudspeaker features a ceramic terminal block and a thermal fuse.

#### Technical Data

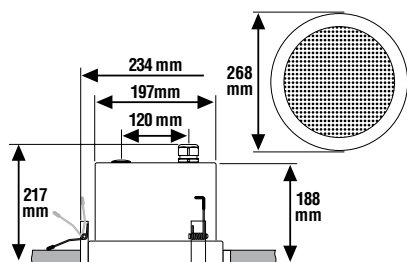
Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 / 0,75 W
Rated impedance	1,7 / 3,3 / 6,7 / 13 kΩ
Sensitivity EN 54-24, 1 W / 1 m	91 dB
Sensitivity EN 54-24, max 1 m	99 dB
Transmission range	170 ... 20000 Hz (-10 dB)
Dispersion angle	170° (H), 171° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Material	Metal
Color	white, similar to RAL 9003 / red similar to RAL 3000
Weight	approx. 1.57 kg
Cut-out size	(Ø min.) 195 mm
Dimensions	Ø: 222 mm D: 129 mm
Declaration of Performance	CPR-DoP-2013002



Delivery time on request.

582402

10 W 8" ceiling loudspeaker EN 54, metal



## Approval as per EN 54-24, 1438/CPD/0233

Ceiling mount loudspeaker in plastic coated metal work with high efficiency and moisture proof broadband loudspeaker chassis, certified as per EN 54-24. DL 10-200/T-EN 54 (200 mm Chassis) has maximum power of 20 W and can be adjusted to 6 W, 10 W or 1.5 W if required. Spring clamps with cropped leg spring, with high clamping force, and short tension distance enables a quick and easy mounting. A smart inner ring prevents the grille from collapsing even under heavy load due to environmental influences. For additional protection, this EN 54-24 ceiling mount loudspeaker is assembled with ceramic clamp and thermal fuse as well as equipped with a fire dome. It has PG16-cable outlet and a blind cover. The fire dome prevents the suction effect of the chimney at the suspended ceiling in case of fire, after possible burning of the loudspeaker membrane.

### Technical Data

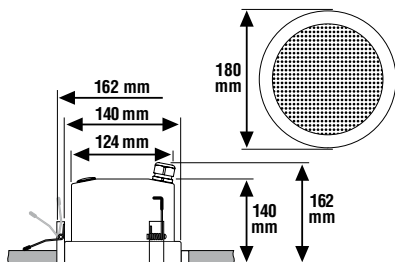
Rated Power	10 W
Transformer power taps	10 / 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	93.9 dB
Sensitivity EN 54-24, max 1 m	103.4 dB
Transmission range	243 ... 19700 Hz (-10 dB)
Dispersion angle	178° @ 1kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 2.1 kg
Cut-out size	(Ø min.) 238 mm
Dimensions	Ø: 268 mm D: 217 mm
Declaration of Performance	001-13



Delivery time on request

582403

20 W 5" ceiling loudspeaker EN 54, metal



## Approval as per EN 54-24, 1438/CPD/0233

Ceiling mount loudspeaker in plastic coated metal work with high efficiency and moisture proof broadband loudspeaker chassis, certified as per EN 54-24. DL 20-130/T-EN 54 (130 mm Chassis) has maximum power of 20 W and can be adjusted to 15 W, 10 W or 5 W if required. Spring clamps with cropped leg spring, with high clamping force, and short tension distance enables a quick and easy mounting. A smart inner ring prevents the grille from collapsing even under heavy load due to environmental influences. For additional fuse, this EN 54-24 ceiling mount loudspeaker is assembled with ceramic clamp and thermal protection as well as equipped with a fire dome. It has PG16-cable outlet and a blind cover. The fire dome prevents the suction effect of the chimney at the suspended ceiling in case of fire, after possible burning of the loudspeaker membrane.

### Technical Data

Rated Power	20 W
Transformer power taps	20 / 15 / 10 / 5 W
Sensitivity EN 54-24, 1 W / 1 m	88.8 dB
Sensitivity EN 54-24, max 1 m	101.3 dB
Transmission range	370 ... 16800 Hz (-10 dB)
Dispersion angle	178° @ 1kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 1.8 kg
Cut-out size	(Ø min.) 166 mm
Dimensions	Ø: 180 mm D: 162 mm
Declaration of Performance	001-13

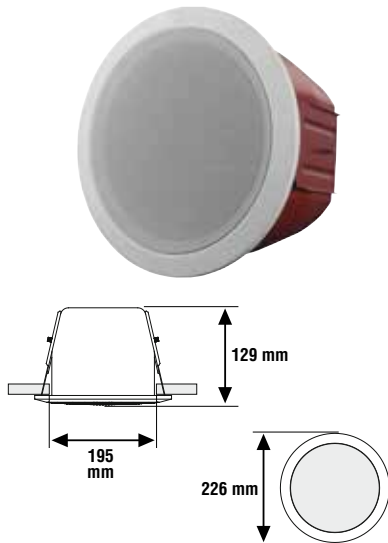


Delivery time on request

582480

24 W 6.5" 2-way ceiling loudspeaker EN 54, metal

**NEW**



## Approval as per EN 54-24, 0359/CPD/00455

The 6.5" ceiling loudspeaker with its 2-way system features an excellent sound quality. It offers a broad frequency range and a high sound pressure level, thereby guaranteeing excellent music and speech reproduction. It is eminently suitable for demanding sound applications such as bistros, restaurants, hotels, and many other public locations. The ceramic terminal block and the thermal fuse increase the protection for the loudspeaker lines. The driver unit is impregnated against moisture. The loudspeaker complies with standard BS 5859 Part 8, and is certified in accordance with EN 54 Part 24.

### Technical Data

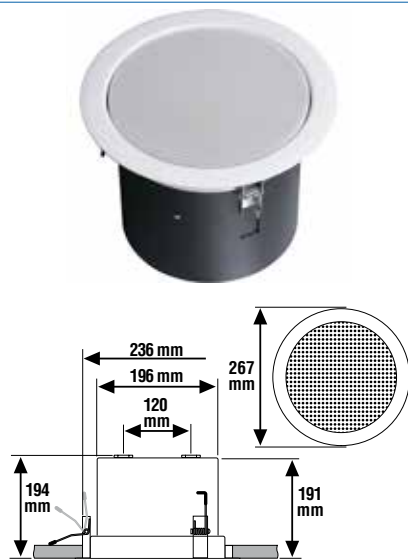
Rated Power	24 W
Transformer power taps	24 / 12 / 6 / 3 W
Rated impedance	0,42 / 0,83 / 1,67 / 3,33 kΩ
Sensitivity EN 54-24, 1 W / 1 m	91 dB
Sensitivity EN 54-24, max 1 m	103 dB
Transmission range	120 ... 20000 Hz (-10 dB)
Dispersion angle	165° (H) / 167° (V) @ 1 kHz
Ambient temperature	-20 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	0 ... 95 % (non condensing)
Material	Metal
Color	white, similar to RAL 9003
Weight	approx. 2.25 kg
Cut-out size	(Ø min.) 195 mm
Dimensions	Ø: 226 mm D: 129 mm
Declaration of Performance	CPR-DoP-2014004



Available Q3/2015

582405

20 W 8" 2-way ceiling loudspeaker EN 54, metal



## Approval as per EN 54-24, 1438/CPD/0233

High quality 2-way ceiling loud speaker in plastic-coated metal with excellent sound quality. This EN 54-24 certified loudspeaker is protected by a moisture-impregnated chassis optimal against moisture.

DL 0610/T-EN 54 (200 mm Chassis) has maximum power of 15 W and can be adjusted to 3 W or 5 W if required. It is ideally suited for demanding sound reinforcement applications such as bistros, restaurants, hotels and many other institutions of public life. Spring clamp with cropped leg spring, with high clamping force, and short tension distance enables a quick and easy mounting. For additional safety, the loudspeaker is also equipped with ceramic fastener and thermal fuse. A fire dome completes the safety features of this loudspeaker. It has two cable lead-throughs. The fire dome prevents the suction effect of the chimney at the suspended ceiling in case of fire, after possible burning of the loudspeaker membrane.

### Technical Data

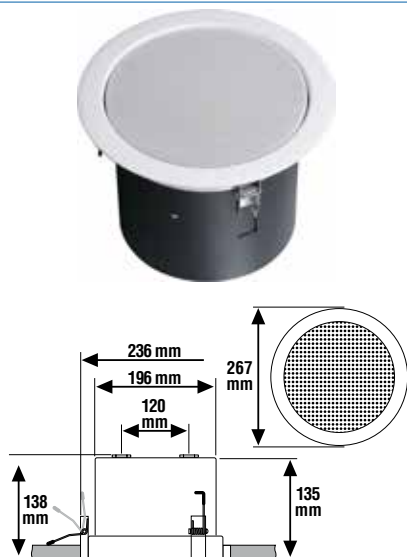
Rated Power	20 W
Transformer power taps	20 / 15 / 10 / 5 W
Sensitivity EN 54-24, 1 W / 1 m	87.4 dB
Sensitivity EN 54-24, max 1 m	103.2 dB
Transmission range	223 ... 21100 Hz (-10 dB)
Dispersion angle	180° @ 1kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 2.6 kg
Cut-out size	(Ø min.) 236 mm
Dimensions	Ø: 268 mm D: 194 mm
Declaration of Performance	001-13



Delivery time on request

582406

2x6 W 2x4" ceiling loudspeaker EN 54, metal



## Approval as per EN 54-24, 1438/CPD/0233

The A/B-line ceiling loudspeaker for voice alarm systems is certified in accordance with EN 54-24 and offers maximum safety for voice alarm projects.

The DL-AB 06-200/T-EN 54 features two mutually independent chassis and two 100 V output transformers, and allows for a cost-effective supply via two separate (A/B) lines. In the event of a failure of one line, the loudspeaker redundancy allows continued acoustic notification of the respective area. For every installation position, the presence of an A line as well as of a B line provides redundancy. The DL-AB 06-200/T-EN 54 ceiling loudspeaker made out of powder-coated metal features 2 x 6 W output. It can be adjusted to 2 x 3 W or 2 x 1.5 W, and is equipped with a fire dome. It features two cable ducts. The fire dome prevents the chimney suction effect with hanging ceilings in case of a fire, for instance after the blow-out of the loudspeaker membrane. Both A/B-line loudspeakers respectively feature 2 integrated ceramic terminals and 2 thermal fuses.

## Technical Data

Rated Power	12 W
Transformer power taps	2x6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	89.8 dB
Sensitivity EN 54 (double)	92.8 dB
Sensitivity EN 54-24 max (double)	100.3 dB
Sensitivity EN 54-24, max 1 m	97.3 dB
Transmission range	162 ... 18600 Hz (-10 dB)
Dispersion angle	145° @ 1kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 2.02 kg
Cut-out size	(Ø min.) 236 mm
Dimensions	Ø: 268 mm D: 138 mm
Declaration of Performance	001-13



Delivery time on request

582407

6 W 5" ceiling loudspeaker EN 54, metal



## Approval as per EN 54-24, 1438/CPD/0233

With its flat form, the type DL-E 06-130/T-EN 54-24 recessed ceiling loudspeaker is optically a good fit for the ceilings for which they were designed. The 5" broadband loudspeaker chassis, which is impregnated against humidity, distinguishes itself by way of its high degree of effectiveness. Typically, the 6 W, 3 W, or 1.5 W adjustment is done to the loudspeaker. The spring latch (2 pieces) guarantees uncomplicated and quick mounting onto the ceiling. In the standard version, a protective cover made out of a synthetic material is mounted to the back side of the loudspeaker, but a fire dome certified according to the EN 54-24 standard is optionally available as well. If the loudspeaker is also meant to be used in accordance with BS 5839-8, it is possible to include the optional thermal fuse and a ceramic connecting terminal with the order, and to mount them.

## Technical Data

Rated Power	6 W
Transformer power taps	6/3/1.5 W
Sensitivity EN 54-24, 1 W / 1 m	88.9 dB
Sensitivity EN 54-24, max 1 m	96.4 dB
Transmission range	104 ... 17200 Hz (-10 dB)
Dispersion angle	180° @ 1kHz
Ambient temperature	-10 °C ... 55 °C
Color	white, similar to RAL 9010
Weight	approx. 0.75 kg
Cut-out size	(Ø min.) 150 mm
Dimensions	Ø: 181.5 mm D: 59 mm
Declaration of Performance	012-13

## Accessories

Optional:

582407.FD

Fire dome (FE 130.1) for ceiling loudspeaker Part No. 582407, 582407.  
SAFE

582407.FD

Fire dome for ceiling loudspeaker Part No. 582407



## Approval as per EN 54-24, 1438/CPD/0233

Fire dome (FE 130.1) for the 5" ceiling loudspeaker (Part No. 582407) for increased passive safety. This fire dome, in combination with the aforementioned ceiling loudspeaker, is certified according to EN 54-24. The fire dome prevents the chimney suction effect with hanging ceilings in case of a fire, for instance after the blow-out of the loudspeaker membrane.

### Technical Data

Ambient temperature	-20 °C ... 80 °C
Color	black
Weight	approx. 0.29 kg
Dimensions	Ø: 138.5 mm D: 70 mm
Declaration of Performance	012-13



The fire dome is EN 54-24 certified, compliant with Part No. 582407, 582407.SAFE.

582407.SAFE

6 W 5" ceiling loudspeaker EN 54.SAFE, metal



## Approval as per EN 54-24, 1438/CPD/0233

With its flat form, the type DL-E 06-130/T-EN 54.SAFE is optically a good fit for the ceilings for which they were designed. The SAFE versions are equipped with a premounted ceramic terminal and a thermal fuse. The 5" broadband loudspeaker chassis, which is impregnated against humidity, distinguishes itself by way of its high degree of effectiveness. Typically, the 6 W, 3 W, or 1.5 W power setting can be selected. The spring latch (2 pieces) guarantees uncomplicated and quick mounting onto the ceiling. In the standard version, a protective cover made out of a synthetic material is mounted to the back side of the loudspeaker, but a fire dome certified according to the EN 54 Part 24 standard is optionally available as well. This is also necessary in order to mount this SAFE-type also in projects which require compliance with BS 5839-8.

### Technical Data

Rated Power	6 W
Transformer power taps	6/3/1.5 W
Sensitivity EN 54-24, 1 W / 1 m	88.9 dB
Sensitivity EN 54-24, max 1 m	96.4 dB
Transmission range	104 ... 17200 Hz (-10 dB)
Dispersion angle	180° @ 1kHz
Ambient temperature	-10 °C ... 55 °C
Color	white, similar to RAL 9010
Weight	approx. 0.75 kg
Cut-out size	(Ø min.) 150 mm
Dimensions	Ø: 181.5 mm D: 59 mm
Declaration of Performance	012-13

### Accessories

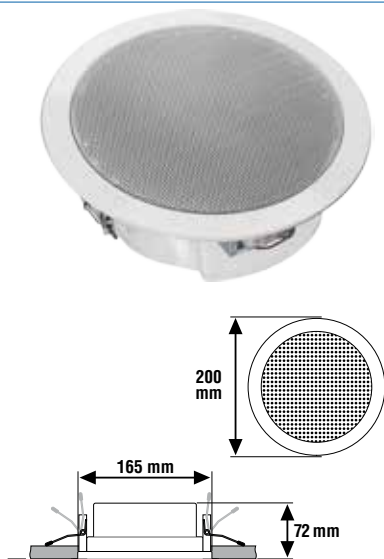
Optional:

582407.FD

Fire dome (FE 130.1)

582408

6 W 6.5" ceiling loudspeaker EN 54, metal



## Approval as per EN 54-24, 1438/CPD/0233

With its flat forms, the type DL-E. 06-165/T-EN 54-24 is optically a good fit for the ceilings for which they were designed. The 6.5" broadband loudspeaker chassis, which is impregnated against humidity, distinguishes itself by way of its high degree of effectiveness. Typically, the 6 W, 3 W, or 1.5 W power setting can be selected. The spring latch (3 pieces) guarantees an uncomplicated and quick mounting onto the ceiling. In the standard version, a protective cover made out of a synthetic material is mounted to the back side of the loudspeaker, but a fire dome certified according to the EN 54 Part 24 standard is optionally available as well. If the loudspeaker is also meant to be used in accordance with BS 5839-8, it is possible to order the optional thermal fuse and a ceramic terminal, and to mount them (also certified in accordance with EN 54-24).

## Technical Data

Rated Power	6 W
Transformer power taps	6/3/1.5 W
Sensitivity EN 54-24, 1 W / 1 m	97.8 dB
Sensitivity EN 54-24, max 1 m	105.3 dB
Transmission range	300 ... 19300 Hz (-10 dB)
Dispersion angle	180° @ 1kHz
Ambient temperature	-10 °C ... 55 °C
Color	white, similar to RAL 9010
Weight	approx. 0.76 kg
Cut-out size	(Ø min.) 165 mm
Dimensions	Ø: 200 mm D: 72 mm
Declaration of Performance	012-13

## Accessories

Optional:

582408.FD

Fire dome (FE 165.1) for ceiling loudspeaker Part No. 582408, 582408.SAFE

582408.FD

Fire dome for ceiling speaker Part No. 582408



## Approval as per EN 54-24, 1438/CPD/0233

Fire dome (FE 165.1) for the 6" ceiling loudspeaker (Part No. 582408) for increased passive safety. This fire dome, in combination with the aforementioned ceiling loudspeaker, is certified according to EN 54-24. The fire dome prevents the chimney suction effect with hanging ceilings in case of a fire, for instance after the blow-out of the loudspeaker membrane.

## Technical Data

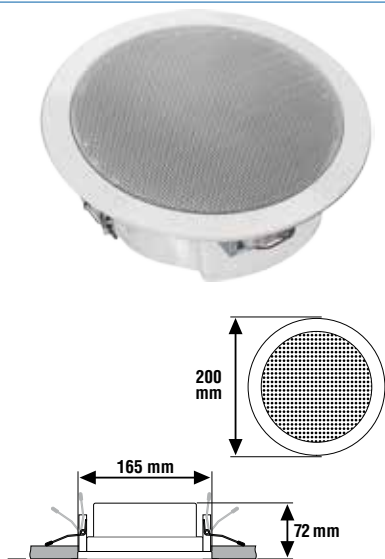
Color	black
Weight	approx. 0.39 kg
Dimensions	Ø: 155 mm D: 87 mm
Declaration of Performance	012-13



Hot pot is linked to Part No. 582408, 582408.SAFE, certified according to EN 54-24.

582408.SAFE

6 W 6.5" ceiling loudspeaker EN 54.SAFE, metal



## Approval as per EN 54-24, 1438/CPD/0233

With its flat form, these novel type DL-E 06-165/T-EN 54.SAFE is optically a good fit for the ceilings for which they were designed. The SAFE versions are equipped with a premounted ceramic terminal and a thermal fuse. The 6.5" broadband loudspeaker chassis, which is impregnated against humidity, distinguishes itself by way of its high degree of effectiveness. Typically, the 6 W, 3 W, or 1.5 W power setting. The spring latch (3 pieces) guarantees uncomplicated and quick mounting onto The ceiling. In the standard version, a protective cover made out of a synthetic material is mounted to the back side of the loudspeaker, but a fire dome certified according to the EN 54 Part 24 standard is optionally available as well. This is also necessary in order to mount this SAFE-type also in projects which require compliance with BS 5839-8.

## Technical Data

Rated Power	6 W
Transformer power taps	6/3/1.5 W
Sensitivity EN 54-24, 1 W / 1 m	97.8 dB
Sensitivity EN 54-24, max 1 m	105.3 dB
Transmission range	300 ... 19300 Hz (-10 dB)
Dispersion angle	180° @ 1kHz
Ambient temperature	-10 °C ... 55 °C
Color	white, similar to RAL 9010
Weight	approx. 0.76 kg
Cut-out size	(Ø min.) 165 mm
Dimensions	Ø: 200 mm D: 72 mm
Declaration of Performance	012-13

## Accessories

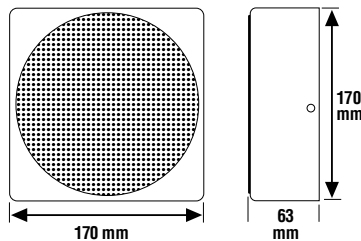
Optional:  
582408.FD Fire dome (FE 165.1)

The cabinet loudspeakers are equipped with a broad number of features to match the different applications. Please select your matching loudspeakers from the table.

Model	Wall-mounted	Ceiling-mounted	Ball-proof
582422	X	X	X
582422.10	X	—	—
582423	X	X	X
582424	X	X	X
582470	X	X	X

582470

**NEW**



6 W 4" cabinet loudspeaker EN 54, metal

Approval as per EN 54-24, 0359/CPD/00174

The cabinet loudspeaker offers a broad frequency range and a high sound pressure level for an accurate and intelligible transmission of the evacuation messages, including an excellent sound reproduction. It is ideal for an even dispersion of sound in public and commercial buildings. Its low-profile, white color design blends easily with most interiors in locations such as hotels, schools, conference rooms, cinemas, amusement parks, factories, and trade fair halls. The driver unit is impregnated against moisture.

This cabinet loudspeaker complies with the BS 5859-8 standards, and is certified according to the EN 54-24 standard.

## Technical Data

Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 / 0,75 W
Rated impedance	1,7 / 3,3 / 6,7 kΩ
Sensitivity EN 54-24, 1 W / 1 m	91 dB
Sensitivity EN 54-24, max 1 m	99 dB
Transmission range	300 ... 15000 Hz (-10 dB)
Dispersion angle	175° (H), 174° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Material	Metal
Color	white, similar to RAL 9003
Weight	approx. 1.56 kg
Dimensions	L: 170 mm W: 170 mm D: 63 mm
Declaration of Performance	CPR-DoP-2013002



Delivery time on request

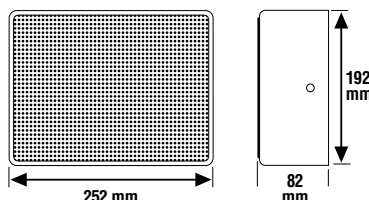
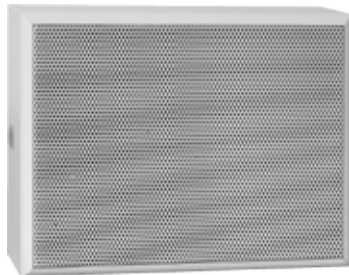
582422

2 x 6 W, 2 x 4" AB cabinet loudspeaker EN 54, MDF

Approval as per EN 54-24, 1438/CPD/0230

The A/B line cabinet loudspeaker for voice alarm systems is certified in accordance with EN 54-24 and offers maximum safety for voice alarm projects.

The WA-AB 06-100/T-EN 54 V features two mutually independent chassis and two 100 V output transformers. It allows for cost-effective supply via two separate (A/B) lines. In the event of a failure of one line, the loudspeaker redundancy allows continued alert of the respective area. For every installation position, the presence of an A line as well as of a B line provides redundancy. The high density MDF wood enclosure (in white) ensures low-resonance sound quality. This version is ball impact resistant and suitable for wall or ceiling mounting. The IP 54 rating guarantees operational safety even under harsh environmental conditions. Both A/B-line loudspeakers respectively feature 2 integrated ceramic terminals and 2 thermal fuses. The chassis are impregnated against moisture.



## Technical Data

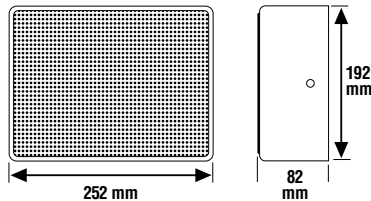
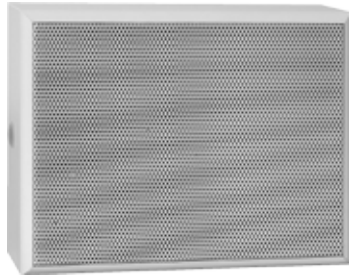
Rated Power	12 W
Transformer power taps	2 x 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	89.5 dB
Sensitivity EN 54 (double)	92.6 dB
Sensitivity EN 54-24 max (double)	100.1 dB
Sensitivity EN 54-24, max 1 m	97 dB
Transmission range	227 ... 14600 Hz (-10 dB)
Dispersion angle	80° (H), 77° (V) @ 1 kHz
Ambient temperature	-20 °C ... 80 °C
Type of protection	IP 54 (zertifiziert)
Color	white, similar to RAL 9010
Weight	approx. 2.3 kg
Dimensions	W: 252 mm H: 192 mm D: 82 mm
Declaration of Performance	008-13



Delivery time on request

582422.10

2 x 6 W, 2 x 4" AB cabinet loudspeaker EN 54, MDF



## Authorized in compliance with EN 54-24, 1438/CPD/0230

The A/B line cabinet loudspeaker for speech alarm systems is certified in accordance with EN 54-24 and offers maximum safety for speech alarm projects. The WA-AB 06-100/T-EN 54 V features two mutually independent chassis and two 100 V output transformers. It allows for cost-effective supply via two separate (A/B) lines. In the event of a failure of one line, the loudspeaker redundancy allows continued acoustic irradiation of the respective area. For every installation position, the presence of an A line as well as of a B line provides redundancy. The high density MDF wood enclosure (in white) ensures low-resonance sound quality. This version is exclusively intended for wall mounting. The IP 54 product standard guarantees operational safety even under harsh environmental conditions. Both A/B-line loudspeakers respectively feature 2 integrated ceramic terminals and 2 thermal fuses. The chassis are impregnated against moisture.

### Technical Data

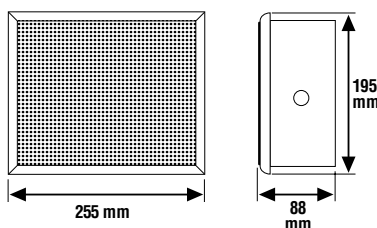
Rated Power	12 W
Transformer power taps	2 x 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	89.5 dB
Sensitivity EN 54 (double)	92.6 dB
Sensitivity EN 54-24 max (double)	100.1 dB
Sensitivity EN 54-24, max 1 m	97 dB
Transmission range	227 ... 14600 Hz (-10 dB)
Dispersion angle	80° (H), 77° (V) @ 1 kHz
Ambient temperature	-20 °C ... 80 °C
Type of protection	IP 54 (zertifiziert)
Color	white, similar to RAL 9010
Weight	approx. 2.3 kg
Dimensions	W: 252 mm H: 192 mm D: 82 mm
Declaration of Performance	008-13



Delivery time on request

582425

6 W 6.5" flush-mounted wall loudspeaker EN 54



## Approval as per EN 54-24, 1438/CPD/0230

The white WU 06-165/T EN 54-24 was specifically developed for flush mount-installations. The stable rectangular in-wall loudspeaker with its stable sheet steel perforated grid cover also stands out due to its discrete softline appearance. It has a maximum output of 6 W, and can be adjusted to 3 W or 1.5 W, if necessary. Balanced sound dynamics are provided by a high-grade 165 mm broadband loudspeaker chassis. The loudspeaker is protected against dust and other forms of environmental impact by way of a synthetic shock-resistant ABS-flush mount enclosure in black. The loudspeaker features an integrated ceramic terminal block and a thermal fuse. Moreover, the loudspeaker chassis is impregnated against moisture.

### Technical Data

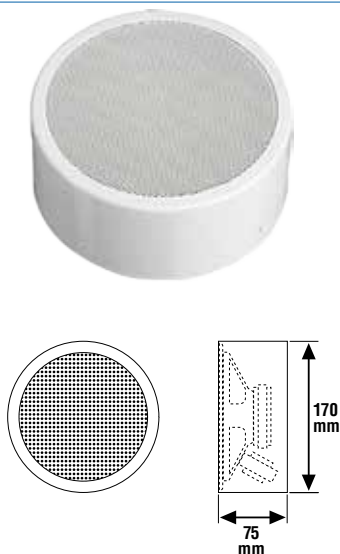
Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	91.6 dB
Sensitivity EN 54-24, max 1 m	99.1 dB
Transmission range	93 ... 23500 Hz (-10 dB)
Dispersion angle	180° (H), 180° (V) @ 1 kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 1.3 kg
Dimensions	W: 255 mm H: 195 mm D: 88 mm
Declaration of Performance	009-13



Delivery time on request

582423

6 W 6.5" round wall or ceiling surface mount loudspeaker, metal



## Approval as per EN 54-24, 1438/CPD/0232

The loudspeaker DL-A 10-200/T-EN 54 for voice alarm made of powder-coated metal in white with high degree of efficiency and a high-quality 200 mm broadband loudspeaker chassis. DL-A 10-165/T-EN 54 can be installed on ceiling and walls, where recessed mounting is not possible. Flat and elegant design for unobtrusive installations provided with a metal back plate. The loudspeaker is equipped for highest security requirements with a ceramic terminal and a thermal fuse. The Chassis is protected against moisture by impregnation. The DL-A 10-165/T EN 54 offers a powerful sound besides the high safety standard.

### Technical Data

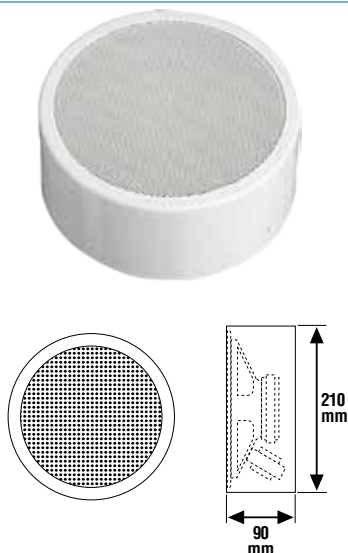
Rated Power	10 W
Transformer power taps	10 / 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	90.7 dB
Sensitivity EN 54-24, max 1 m	100.7 dB
Transmission range	290 ... 23400 Hz (-10 dB)
Dispersion angle	80° @ 1 kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 1.3 kg
Dimensions	Ø: 170 mm D: 75 mm
Declaration of Performance	004-13



Delivery time on request

582424

10 W 8" round wall or ceiling surface mount loudspeaker, metal



## Approval as per EN 54-24, 1438/CPD/0232

The loudspeaker DL-A 10-200/T-EN 54 for voice alarm made of powder-coated metal in white with high degree of efficiency and a high-quality 200 mm broadband loudspeaker chassis. The DL-A 10-200/T EN 54 can be mounted onto ceilings and walls when recessed mounting is not possible. Flat and elegant design for unobtrusive installations provided with a metal back plate. The loudspeaker features a ceramic terminal and a thermal fuse in order to meet the highest safety requirements. The chassis is impregnated against moisture. Apart from a very high safety standard, the DL-A 10-200/T EN 54-24 also features a powerful sound.

### Technical Data

Rated Power	10 W
Transformer power taps	10 / 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	92.5 dB
Sensitivity EN 54-24, max 1 m	102 dB
Transmission range	275 ... 19100 Hz (-10 dB)
Dispersion angle	80° @ 1 kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 2.1 kg
Dimensions	Ø: 210 mm D: 90 mm
Declaration of Performance	004-13

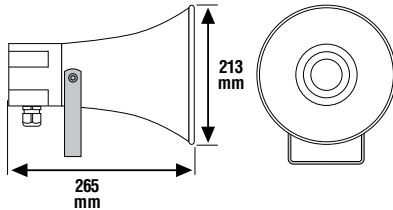


Delivery time on request

582479

15 W horn loudspeaker EN 54, ABS

**NEW**



## Approval as per EN 54-24, 0359/CPD/00456

The horn loudspeaker offers a high sound pressure and long-lasting weather resistance, ideal for use in industrial projects. The IP 66 high protection class guarantees operational safety even under the most difficult conditions. The loudspeaker is also equipped with a ceramic terminal block and a thermal fuse for increased safety. The shock-resistant ABS enclosure according to UL94V0 ensures long-lasting stability. A U-shaped non-corrosive universal bracket is enclosed for flexible mounting. The cable connection is done without need for an additional junction box. The flexible power adjustment can be easily done with the rotary switch on the back side of the loudspeaker. The loudspeaker is also suitable for outdoors use. The loudspeaker complies with standard BS 5859 Part 8, and is certified in accordance with EN 54 Part 24.

### Technical Data

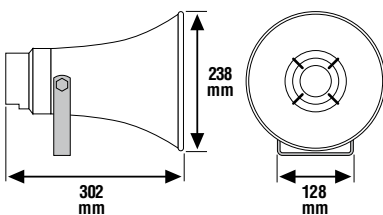
Rated Power	15 W
Transformer power taps	15 / 10 / 5 W
Rated impedance	0.667 / 1 / 2 kΩ
Sensitivity EN 54-24, 1 W / 1 m	105 dB
Sensitivity EN 54-24, max 1 m	117 dB
Transmission range	300 ... 16000 Hz (-10 dB)
Dispersion angle	124° (H) / 143° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Type of protection	IP 66
Material	ABS
Color	light grey, similar to RAL 7035
Weight	approx. 2.05 kg
Dimensions	Ø: 213 mm D: 265 mm
Declaration of Performance	CPR-DoP-2014005



Available Q3/2015

582432

30 W horn loudspeaker EN 54, ABS



## Approval as per EN 54-24, 1438/CPD/0242

The horn loudspeaker DK 30/T-EN 54 certified in accordance to EN 54-24 offers a high sound pressure and weather resistance, ideal for industrial use. The high protection class IP 66 guarantees operating reliability even under difficult environmental conditions. For increased protection, the loudspeaker is equipped with built in ceramic terminal and a thermal fuse. The impact resistant ABS housing following UL94V0 guarantees long lasting stability. A U shaped, stainless universal holder is included for a flexible mounting. The flexible power adjustment can be easily done on the back side of the loudspeaker, 30 W, 20 W, 10 W, 5 W. The DK 30/T-EN 54 is also suitable for using in outdoor areas.

### Technical Data

Rated Power	30 W
Transformer power taps	30 / 20 / 10 / 5 W
Sensitivity EN 54-24, 1 W / 1 m	91.9 dB
Sensitivity EN 54-24, max 1 m	106 dB
Transmission range	592 ... 6900 Hz (-10 dB)
Dispersion angle	103° @ 1 kHz
Ambient temperature	-20 °C ... 90 °C
Type of protection	IP 66 (zertifiziert)
Color	gray, similar to RAL 7035
Weight	approx. 2.6 kg
Dimensions	Ø: 238 mm D: 302 mm
Declaration of Performance	003-13



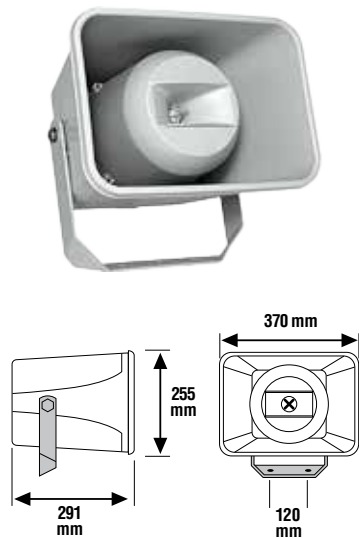
Incl. premounted 1.0 m cable and an IP 65 distribution box



Delivery time on request

582433

30 W 2-way horn loudspeaker EN 54, ABS



## Approval as per EN 54-24, 1438/CPD/0242

The 2-way music horn DK-MH 30/T plus-EN 54 with impact-resistant ABS housing in light gray (similar to RAL 7035) and protection class IP 66, complements the series of horn loudspeaker for voice alarm. For more safety, it is also equipped with ceramic terminal and thermal fuse. An enormous sound pressure and a convincing music quality, likewise as simple and flexible installation with stainless aluminum universal mount. The flexible power adjustment can be easily done on the back side of the loudspeaker, 30 W, 15 W, 7,5 W, 3,75 W. The DK MH30/T plus-EN 54 is also suitable for using in outdoor areas.

## Technical Data

Rated Power	30 W
Transformer power taps	30 / 15 / 7,5 / 3,75 W
Sensitivity EN 54-24, 1 W / 1 m	90.4 dB
Sensitivity EN 54-24, max 1 m	104.8 dB
Transmission range	237 ... 21100 Hz (-10 dB)
Dispersion angle	60° (H), 99° (V) @ 1 kHz
Ambient temperature	-20 °C ... 90 °C
Color	white, similar to RAL 9010
Weight	approx. 4.5 kg
Dimensions	W: 370 mm H: 255 mm D: 291 mm
Declaration of Performance	003-13

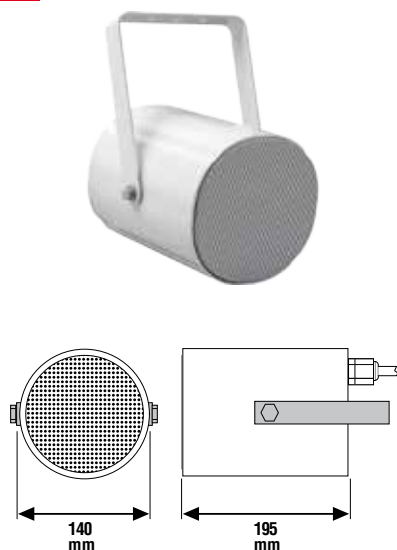


Delivery time on request

582473

10 W unidirectional sound projector EN 54, metal

**NEW**



## Approval as per EN 54-24, 0359/CPD/0172

This unidirectional 10 W sound projector features a broad frequency response and a high degree of efficiency. Its IP 65 protection class guarantees universal applicability indoors as well as outdoors.

Its modern design and its excellent sound quality make this sound projector eminently suitable for use in hotels, shopping malls, airports, railway platforms, etc.

The mounted thermal fuse as well as the ceramic terminal enable application in compliance with BS5839 Part 8.

### Technical Data

Rated Power	10 W
Transformer power taps	10 / 5 / 2,5 / 1,25 W
Sensitivity EN 54-24, 1 W / 1 m	89 dB
Sensitivity EN 54-24, max 1 m	99 dB
Transmission range	150 ... 20000 Hz (-10 dB)
Dispersion angle	214° (H), 219° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Type of protection	IP 65
Color	white, similar to RAL 9003
Weight	approx. 2.62 kg
Dimensions	Ø: 140 mm D: 195 mm
Declaration of Performance	CPR-DoP-2014002



Pre-mounted fire-resistant, 6-core connection cable, length 0.90 m  
Including bracket and mounted at housing (please mounted at housing instructions)!

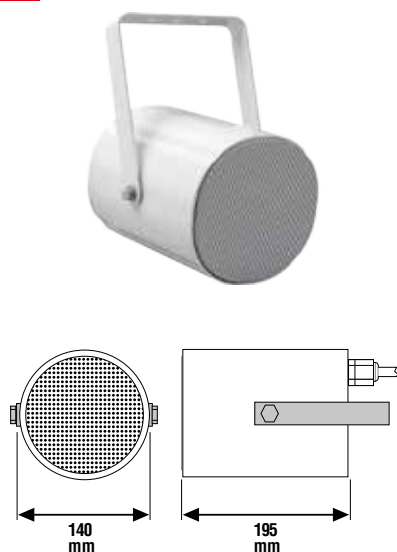


Delivery time on request

582474

20 W unidirectional sound projector EN 54, metal

**NEW**



## Approval as per EN 54-24, 0359/CPD/0172

This unidirectional 20 W sound projector features a broad frequency response and a high degree of efficiency. Its IP 65 protection class guarantees universal applicability indoors as well as outdoors.

Its modern design and its excellent sound quality make this sound projector eminently suitable for use in hotels, shopping malls, airports, railway platforms, etc.

The mounted thermal fuse as well as the ceramic terminal enable application in compliance with BS5839 Part 8.

### Technical Data

Rated Power	20 W
Transformer power taps	20 / 10 / 5 / 2,5 W
Sensitivity EN 54-24, 1 W / 1 m	89 dB
Sensitivity EN 54-24, max 1 m	102.5 dB
Transmission range	150 ... 20000 Hz (-10 dB)
Dispersion angle	214° (H), 219° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Type of protection	IP 65
Color	white, similar to RAL 9003
Weight	approx. 2.65 kg
Dimensions	Ø: 140 mm D: 195 mm
Declaration of Performance	CPR-DoP-2014002



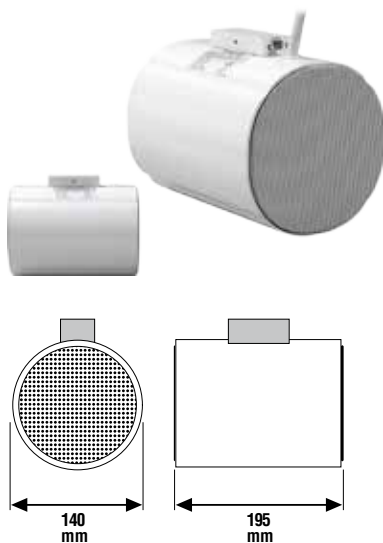
Pre-mounted fire-resistant, 6-core connection cable, length 0.90 m  
Including bracket mounted at housing (please refer to the installation instructions)!



Delivery time on request

582475

20 W bidirectional sound projector EN 54, metal

**NEW****Approval as per EN 54-24, 0359/CPD/0172**

This bidirectional 20 W sound projector features a broad frequency response and a high degree of efficiency. Its IP 65 protection class guarantees universal applicability indoors as well as outdoors. Its modern design and its excellent sound quality make this sound projector eminently suitable for use in hotels, shopping malls, airports, railway platforms, etc.

The mounted thermal fuse as well as the ceramic terminal enable application in compliance with BS5839 Part 8.

**Technical Data**

Rated Power	20 W
Transformer power taps	20 / 10 / 5 / 2,5 W
Sensitivity EN 54-24, 1 W / 1 m	87 dB
Sensitivity EN 54-24, max 1 m	100 dB
Transmission range	150 ... 20000 Hz (-10 dB)
Dispersion angle	214° (H), 219° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Type of protection	IP 65
Color	white, similar to RAL 9003
Weight	approx. 3.23 kg
Dimensions	Ø: 140 mm D: 195 mm
Declaration of Performance	CPR-DoP-2014002



Pre-mounted fire-resistant, 6-core connection cable, length 0.90 m  
Including bracket mounted at housing (please refer to installation instructions)!



Delivery time on request

582460

16 W spherical speaker EN 54, ABS



## Approval as per EN 54-24, 1438/CPD/0325

The compact DL-K 16-130/T-EN 54 is equipped with a corrosion-resistant 130 mm full range speaker chassis with ceramic terminal and thermal fuse. The 16 W high ball speaker certified to EN 54-24 with ABS housing (UL94 HB) offers a high sound pressure level and a balanced frequency response.

### Technical Data

Rated Power	16 W
Transformer power taps	16 / 8 / 4 W
Sensitivity EN 54-24, 1 W / 1 m	85 dB
Sensitivity EN 54-24, max 1 m	97 dB
Transmission range	130 ... 13300 Hz (-10 dB)
Dispersion angle	196° @ 1kHz
Ambient temperature	-20 °C ... 80 °C
Type of protection	IP 35
Color	white, similar to RAL 9010
Weight	approx. 1.5 kg
Dimensions	Ø: 185 mm D: 157 mm
Declaration of Performance	005-13



Pre-mounted, 5-core connection cable, length 4,50 m  
Including canopy



Delivery time on request.

582461

20 W spherical speaker EN 54, ABS



## Approval as per EN 54-24, 1438/CPD/0325

The DL-54 K 20-165/T-EN with an impact-resistant, UV-resistant ABS-housing in white (UL94 V0) features a corrosion-resistant 165-mm broadband loudspeaker chassis with ceramic terminal and thermal fuse. The spherical loudspeaker certified according to EN 54-24 meets the highest safety requirements of IP 35 (IEC 529). The power setting of DL-K 20-165 / T can be easily adjusted by turning the screw at the top of the ball. The low-resistance mode is also possible.

### Technical Data

Rated Power	20 W
Transformer power taps	20 / 10 / 5 / 2,5 W
Sensitivity EN 54-24, 1 W / 1 m	91.5 dB
Sensitivity EN 54-24, max 1 m	104.5 dB
Transmission range	128 ... 17900 Hz (-10 dB)
Dispersion angle	163° @ 1 kHz
Ambient temperature	-20 °C ... 80 °C
Type of protection	IP 35
Color	white, similar to RAL 9010
Weight	approx. 2.2 kg
Dimensions	Ø: 260 mm D: 245 mm
Declaration of Performance	005-13



Pre-mounted, 5-core connection cable, length 4,50 m  
Including canopy



Delivery time on request

## Loudspeaker EN 54-24

## Column Loudspeaker

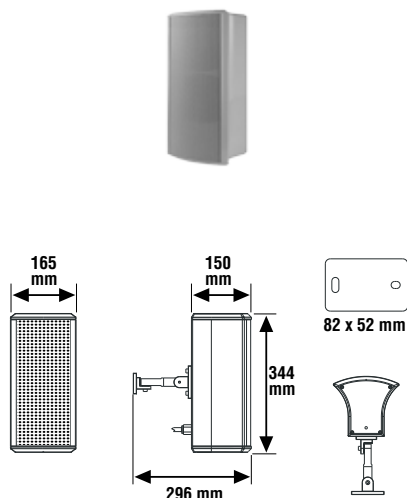
582476

**NEW**

20 W column loudspeaker EN 54, metal

Approval as per EN 54-24, 0359/CPD/00456

The 20 W column loudspeaker has a broad frequency range and a high sound pressure level. This guarantees an accurate and intelligible transmission of the evacuation message, as well as excellent sound reproduction. It can be used indoors as well as outdoors, in dry as well as in humid surroundings. Due to its flat design and the white coating, the loudspeaker can be easily integrated in hotels, conference rooms, cinemas, factories, trade fair halls and other buildings. The loudspeaker complies with standard BS 5859 Part 8, and is certified in accordance with EN 54 Part 24.



### Technical Data

Rated Power	20 W
Transformer power taps	20 / 10 / 5 / 2.5 W
Rated impedance	0,5 / 1 / 2 / 4 kΩ
Sensitivity EN 54-24, 1 W / 1 m	91 dB
Sensitivity EN 54-24, max 1 m	104 dB
Transmission range	300 ... 15000 Hz (-10 dB)
Dispersion angle	146° (H) / 87° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Type of protection	IP 66
Material	Aluminum
Color	white, similar to RAL 9003
Weight	approx. 3.75 kg
Dimensions	W: 165 mm H: 344 mm D: 150 mm
Declaration of Performance	CPR-DoP-2014003



Wall mount included



Delivery time on request.

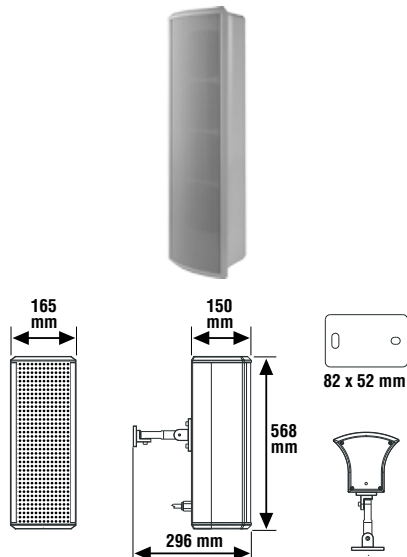
582477

**NEW**

40 W column loudspeaker EN 54, metal

Approval as per EN 54-24, 0359/CPD/00455

The 40 W column loudspeaker has a broad frequency range and a high acoustic pressure level. This guarantees an accurate and intelligible transmission of the evacuation message, as well as excellent sound reproduction. It can be used indoors as well as outdoors, in dry as well as in humid surroundings. Due to its flat design and the white coating, the loudspeaker can be easily integrated in hotels, conference rooms, cinemas, factories, trade fair halls and other buildings. The loudspeaker complies with standard BS 5859 Part 8, and is certified in accordance with EN 54 Part 24.



### Technical Data

Rated Power	40 W
Transformer power taps	40 / 20 / 10 / 5 W
Rated impedance	0,25 / 0,5 / 1 / 2 kΩ
Sensitivity EN 54-24, 1 W / 1 m	94 dB
Sensitivity EN 54-24, max 1 m	110 dB
Transmission range	300 ... 15000 Hz (-10 dB)
Dispersion angle	147° (H) / 48° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Type of protection	IP 66
Material	Aluminum
Color	white, similar to RAL 9003
Weight	approx. 5.75 kg
Dimensions	W: 165 mm H: 568 mm D: 150 mm
Declaration of Performance	CPR-DoP-2014003



Wall mount included



Delivery time on request.

582452

## 30 W column loudspeaker EN 54



### Approval as per EN 54-24, 1438/CPD/0315

This TS-C 30-700/T-EN 54 column loudspeaker stands out with its good voice reproduction and its excellent sound pressure. With its sleek design it fits inconspicuously into its respective surrounding structures. Due to its directional dispersion pattern, this column loudspeaker certified according to EN 54 Part 24 is specifically suited for the acoustic irradiation of particularly reverberant spaces that are acoustically difficult to fill with sound, such as auditoriums, conference rooms, etc.

#### Technical Data

Rated Power	30 W
Transformer power taps	30 / 15 / 7,5 W
Sensitivity EN 54-24, 1 W / 1 m	93 dB
Sensitivity EN 54-24, max 1 m	107.5 dB
Transmission range	230 ... 16500 Hz (-10 dB)
Dispersion angle	190° (H), 50°(V) @ 1kHz
Ambient temperature	-20 °C ... 90 °C
Type of protection	IP 66
Color	silver, similar to RAL 9006 (Optional all RAL colours)
Weight	approx. 3.8 kg
Dimensions	W: 700 mm H: 100 mm D: 92 mm
Declaration of Performance	006-13



Wall bracket included



Delivery time on request

582453

## 50 W column loudspeaker EN 54



### Approval as per EN 54-24, 1438/CPD/0315

This TS-C 50-1000/T-EN 54 column loudspeaker stands out with its good voice reproduction and its excellent sound pressure. With its sleek design it fits inconspicuously into its respective surrounding structures. Due to its directional dispersion pattern, this column loudspeaker certified according to EN 54 Part 24 is specifically suited for the acoustic irradiation of particularly reverberant spaces that are acoustically difficult to fill with sound, such as auditoriums, conference rooms, etc.

#### Technical Data

Rated Power	50 W
Transformer power taps	50/ 30 / 15 / 7,5 W
Sensitivity EN 54-24, 1 W / 1 m	94.7 dB
Sensitivity EN 54-24, max 1 m	111.5 dB
Transmission range	250 ... 15800 Hz (-10 dB)
Dispersion angle	186° (H), 33°(V) @ 1kHz
Ambient temperature	-20 °C ... 90 °C
Type of protection	IP 66
Color	silver, similar to RAL 9006 (Optional all RAL colours)
Weight	approx. 5.2 kg
Dimensions	W: 971 mm H: 100 mm D: 92 mm
Declaration of Performance	006-13



Wall bracket included



Delivery time on request



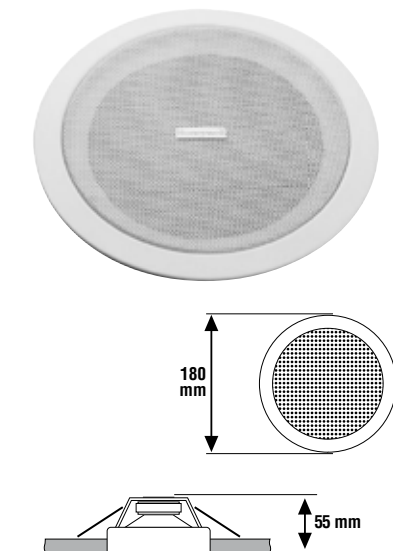
## Standard Loudspeaker

Ceiling Loudspeaker	86
Cabinet Loudspeaker	87-88
Sound Projector	89
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Spherical Loudspeaker	91
Accessories	92

## Standard Loudspeaker

581263

**NEW**



### 6 W 5" ceiling loudspeaker, metal

The cost-effective ceiling loudspeaker features an excellent sound reproduction and an esthetically appealing design. It is versatile and distinguishes itself by its high sound pressure and its broad frequency range. It features 6 W Dual Cone driver unit and a back-mounted 100 V transformer. The loudspeaker is CE and RoHS compliant.

#### Technical Data

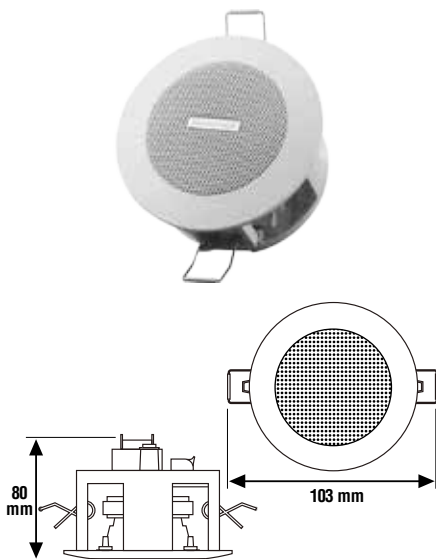
Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 W
Rated impedance	1,7 / 3,3 / 6,7 kΩ
SPL 1 W / 1 m	90 dB
Transmission range	120 ... 20000 Hz (-10 dB)
Dispersion angle	160°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Material	Metal
Color	white, similar to RAL 9003
Weight	approx. 0.71 kg
Cut-out size	(Ø min.) 150 mm
Dimensions	Ø: 180 mm D: 55 mm



Delivery time on request.

581274

**NEW**



### 6 W 3" ceiling loudspeaker, ABS

This versatile loudspeaker is the ideal choice for excellent voice and music reproduction in shopping centers, supermarkets, schools, office buildings, athletic fields, hotels, and restaurants. The loudspeaker features an integrated dual cone and a back-mounted 100 V transformer. It can be mounted to the ceiling with the enclosed bracket. The loudspeaker is CE and RoHS compliant.

#### Technical Data

Rated Power	6 W
Transformer power taps	6 / 3 W
Rated impedance	1,7 / 3,3 kΩ
SPL 1 W / 1 m	84 dB
Transmission range	110 ... 20000 Hz (-10 dB)
Dispersion angle	150°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Color	white, similar to RAL 9003
Weight	approx. 0.42 kg
Cut-out size	(Ø min.) 95 mm
Dimensions	Ø: 103 mm D: 80 mm

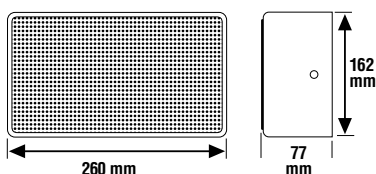
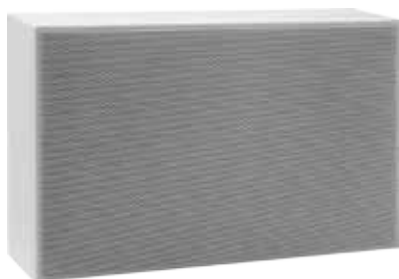


Delivery time on request.

## Standard Loudspeaker

581270

**NEW**



### 6 W cabinet loudspeaker, ABS

The loudspeaker has a shallow installation height. Its elegant design makes it suited for applications in various environments, such as shopping centers, education institutions, office buildings, hotels, and restaurants.

The loudspeaker features a high-grade loudspeaker chassis, which provides an extraordinary audio output and guarantees long-term durability. The quick and simple installation saves time and costs. The loudspeaker is CE and RoHS compliant.

#### Technical Data

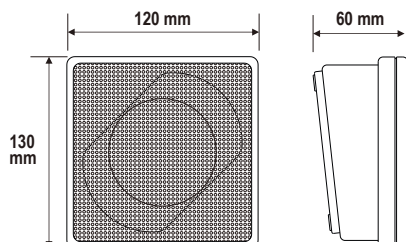
Rated Power	6 W
Transformer power taps	6 / 3 W
Rated impedance	1,7 / 3,3 kΩ
SPL 1 W / 1 m	90 dB
Transmission range	200 ... 20000 Hz (-10 dB)
Dispersion angle	120°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Material	ABS
Color	white, similar to RAL 9003
Weight	approx. 1 kg
Dimensions	W: 260 mm H: 162 mm D: 77 mm



Delivery time on request.

581275

**NEW**



### 3 W cabinet loudspeaker, ABS

The cost-effective loudspeaker is ideal for smooth sound reproduction. The included mounting enclosure features built-in protection in order to guarantee a longer service life. The moisture-resistant speaker cone offers clear sound. With its compact and discrete design, the loudspeaker can be used in a variety of applications, including shopping centers, educational institutions, public office buildings, hotels, restaurants, etc.

The loudspeaker is CE and RoHS compliant.

#### Technical Data

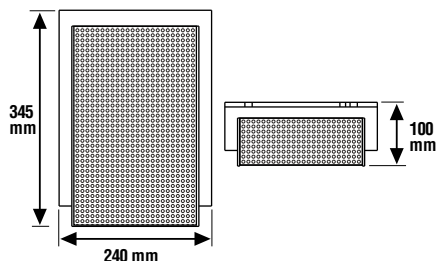
Rated Power	3 W
Transformer power taps	3 / 1,5 W
Rated impedance	3,3 / 6,7 kΩ
SPL 1 W / 1 m	88 dB
Transmission range	300 ... 6000 Hz (-10 dB)
Dispersion angle	180°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Material	ABS
Color	white, similar to RAL 9010
Weight	approx. 0.4 kg
Dimensions	W: 120 mm H: 60 mm D: 30 mm



Delivery time on request.

581276

**NEW**



### 10 W cabinet loudspeaker, ABS

The Cabinet loudspeaker is suitable for various applications, such as shopping centers, supermarkets, educational institutions, office buildings, hotels, and restaurants. It stands out due to its high sound pressure and its wide frequency range, and offers excellent voice and music reproduction. Available output settings are 5 W and 10 W. A spring terminal on the back side makes cable connection easier. The elegant design in shock-resistant ABS material is kept in discrete white. The loudspeaker features an extraordinary bass response.

The loudspeaker is CE and RoHS compliant.

#### Technical Data

Rated Power	10 W
Transformer power taps	10 / 5 W
Rated impedance	1 / 2 kΩ
SPL 1 W / 1 m	92 dB
Transmission range	150 ... 17000 Hz (-10 dB)
Dispersion angle	170°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Material	ABS
Color	white, similar to RAL 9003
Weight	approx. 1.6 kg
Dimensions	W: 345 mm H: 240 mm D: 100 mm

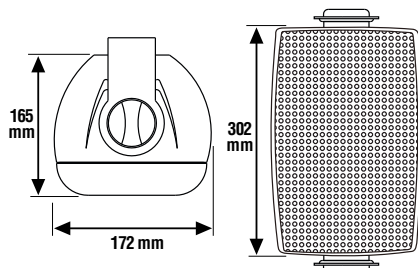


Delivery time on request.

## Standard Loudspeaker

581277

**NEW**



## Cabinet Loudspeaker

**40 W cabinet loudspeaker, ABS**

The Cabinet loudspeaker is very well capable of reproducing background music. Spring clips on the back side make a simple installation possible. The loudspeaker is ideal for use in bars, restaurants, shopping centers, video stores, conference rooms, office buildings, trade fair halls, gyms, presentation rooms, etc. The adjustable brackets allow for the flexible positioning of the loudspeaker.

The loudspeaker is CE and RoHS compliant.

### Technical Data

Rated Power	40 W
Transformer power taps	40 / 20 / 10 W
Rated impedance	0,25 / 0,5 / 1 kΩ
SPL 1 W / 1 m	84 dB
Transmission range	100 ... 20000 Hz (-10 dB)
Dispersion angle	160°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Material	ABS
Color	white, similar to RAL 9003
Weight	approx. 3.2 kg
Dimensions	W: 302 mm H: 172 mm D: 165 mm

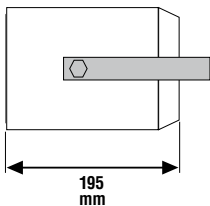
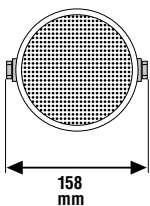


Delivery time on request.

581258

20 W unidirectional sound projector, ABS

NEW



Due to its high-quality ABS enclosure and its special mechanical design, this sound projector can be used in places where air humidity and temperatures are high. With its broad frequency range and high sound pressure level, this loudspeaker is eminently suitable for use in train stations, shopping centers, warehouses, etc.  
The sound projector is CE and RoHS compliant.

Technical Data

Rated Power	20 W
Transformer power taps	20 / 10 / 5 W
SPL 1 W / 1 m	92 dB
Transmission range	140 ... 20000 Hz (-10 dB)
Dispersion angle	150°
Ambient temperature	-20 °C ... 90 °C
Storage temperature	-40 °C ... 70 °C
Type of protection	IP 55
Color	white, similar to RAL 9003
Weight	approx. 1.56 kg
Dimensions	Ø: 138 mm D: 201 mm

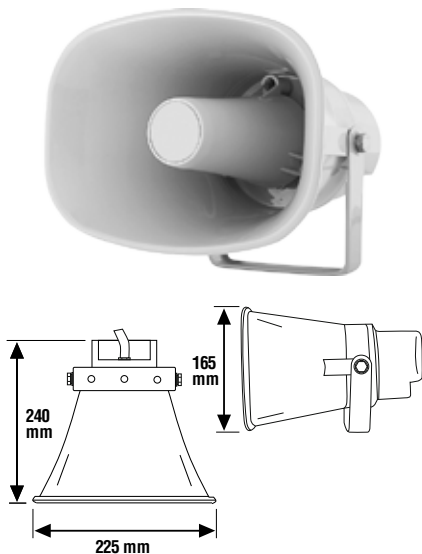


Delivery time on request.

## Standard Loudspeaker

581271

**NEW**



### 15 W horn loudspeaker, ABS

The horn loudspeaker distinguishes itself by its high IP rating and reliability. The enclosure consists of robust and fire-resistant ABS with very low weight. With its esthetic and elegant design, the loudspeaker is suitable for application in a variety of locations, such as in train stations, ports, police stations, traffic junctions, etc. The horn loudspeaker features robust adjustable mounting brackets for precise dispersion of sound.

The loudspeaker is CE and RoHS compliant.

#### Technical Data

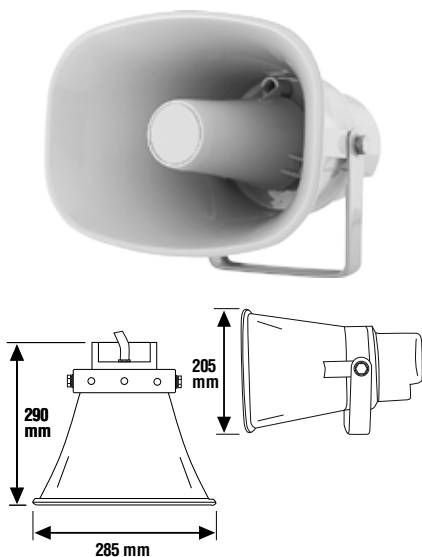
Rated Power	15 W
Transformer power taps	15 / 7,5 W
Rated impedance	0,67 / 1,3 kΩ
SPL 1 W / 1 m	103 dB
Transmission range	350 ... 8000 Hz (-10 dB)
Dispersion angle	140°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Type of protection	IP 66
Material	ABS
Color	white, similar to RAL 9003
Weight	approx. 1.56 kg
Dimensions	W: 240 mm H: 225 mm D: 165 mm



Delivery time on request.

581272

**NEW**



### 30 W horn loudspeaker, ABS

The horn loudspeaker distinguishes itself by its high IP rating and reliability. The enclosure consists of robust and fire-resistant ABS with very low weight. With its esthetic and elegant design, the loudspeaker is suitable for application in a variety of locations, such as in train stations, ports, police stations, traffic junctions, etc. The horn loudspeaker features robust adjustable mounting brackets for precise dispersion of sound.

The loudspeaker is CE and RoHS compliant.

#### Technical Data

Rated Power	30 W
Transformer power taps	30 / 15 W
Rated impedance	0,33 / 0,67 kΩ
SPL 1 W / 1 m	104 dB
Transmission range	300 ... 10000 Hz (-10 dB)
Dispersion angle	150°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 % (non condensing)
Type of protection	IP 66
Material	ABS
Color	white, similar to RAL 9003
Weight	approx. 2.1 kg
Dimensions	W: 290 mm H: 285 mm D: 205 mm



Delivery time on request.

581215

### 20 W spherical loudspeaker, metal



Spherical loudspeaker with real surround sound. A 360° horizontal and 160° vertical sound emission results in almost total coverage. Excellent emission, a steady frequency response and good efficiency make this loudspeaker the answer to many acoustics problems.

Ideal for fitting large areas for sound, such as warehouses, entrance halls or factories. Can be used for both voice as well as music.

#### Technical Data

Rated Power	20 W
Transformer power taps	20 / 10 / 5 W
SPL 1 W / 1 m	89.6 dB
SPL Pmax / 1 m	101.6 dB
Transmission range	130 ... 13300 Hz (-10 dB)
Dispersion angle	160°
Color	white
Weight	approx. 1.46 kg
Connection lead	max. 2 m
Dimensions	Ø: 185 mm



Delivery time on request

581321



## Flush-mount volume control 6 W

Flush-mounted volume control 6 watts with duty relay (24 V DC). Fail-to-Save-series, in which the relay during normal operation is active. GIRA System 55 pure white satin finish.



Please use a cavity wall box with the minimum depth of 47mm!



Delivery time on request

### Accessories

581329

Surface mount

581322



## Flush-mount volume control 12 W

Flush-mounted volume control 12 watts with duty relay (24 V DC). Fail-to-Save-series, in which the relay during normal operation is active. GIRA System 55 pure white satin finish.



Please use a cavity wall box with the minimum depth of 47mm!



Delivery time on request

### Accessories

581329

Surface mount

581323



## Flush-mount volume control 50 W

Flush-mounted volume control 50 watts with duty relay (24 V DC). Fail-to-Save-series, in which the relay during normal operation is active. GIRA System 55 pure white satin finish.



Please use a cavity wall box with the minimum depth of 47mm!



Delivery time on request

### Accessories

581329

Surface mount

581329



## Surface mount box

Surface mount frame for the Part No. 581320 to 581323 / GIRA System 55.

### Technical Data

Color

pure white / silk-mat



Delivery time on request

581286

## Ceramic terminal and thermal fuse

A 3-pin ceramic terminal and a thermal fuse (trigger temperature 240 °C) provide the necessary protection to prevent a short circuit of the loudspeaker in case of fire and prevent further damage.



Delivery time on request



## Active Beam Steering Systems

General	94-97
LFI-120	98
LFI-220	99
LFI-350	100
LFI-450	101
Accessories	102-103

# Voice Alarms and Announcements - Special Environmental Conditions Require Special Solutions

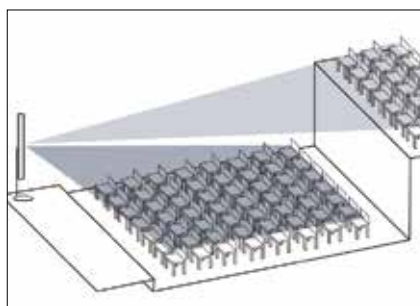


In the field of sophisticated architecture, certain background conditions must be met when implementing a successful safety concept. In relation to the support for possible evacuation measures, modern loudspeaker technology now makes it possible to obtain outstanding results even under difficult conditions in the area of spatial acoustics. This has been demonstrated by numerous corresponding implementations in a variety of projects

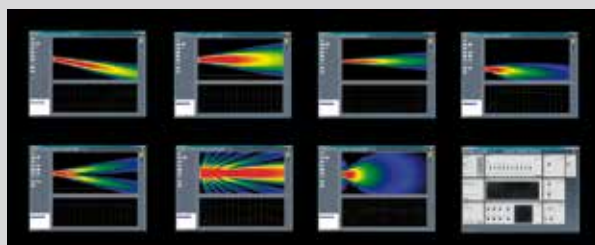
## Architecture and Alarms

Imposing spatial structures in functional buildings and extravagant room planning are ever more frequent in refining the visual appearance of buildings. The type and design of construction of these facilities makes it increasingly difficult to ensure the good acoustics needed both for good speech comprehensibility and for pleasant announcements.

technology and suitable loudspeakers to achieve very good speech comprehensibility and acoustically clean announcements. Loudspeakers can now be installed so discreetly that sophisticated architecture and effective alarm systems are no longer mutually incompatible.



Our VAPA specialists will be happy to support you in the preparation of a concept and during the planning phase with respect to the implementation of appropriate measures for optimum technical fire protection and a voice alarm system for evacuations. This also includes simulations in the specific structures, taking account of the models of our loudspeaker systems that are being evaluated. Upon request, we can also support you during installation and commissioning, including the successful building approval of your VAPA system.



The functioning of active line arrays:

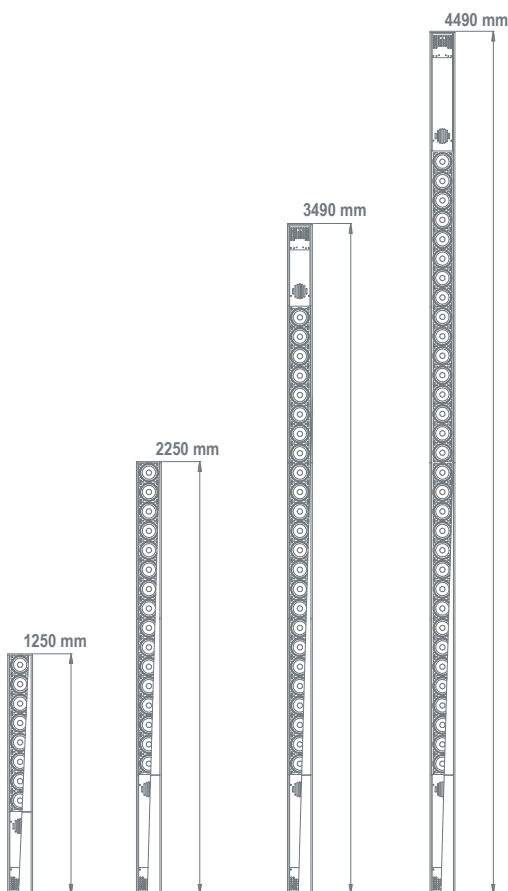
An active line array is mounted flat on the wall. Using software, the DSP optimally directs the orientation of the beam.

This adjustment takes place in real time.

### Any questions?

If you have any questions or need support in advance, you can contact our specialists at any time for standards-compliant announcements in your applicable regions. A list of contacts appears on the introductory pages of this catalog.

# General Features



## General Features:

- 8, 16, 24 bzw. 32 integral digital amplifiers and digital signal processors (depends on the speakers' length)
- Beam control in realtime
- Side Lobe Free Technology
- Vertical dispersion control function
- Movable acoustic centre
- Two beam technology
- Integral protective circuits for maximum operating safety
- High degree of speech intelligibility in rooms with difficult acoustics
- Suitable for reproduction of music using Fohhn subwoofers in a system
- Aluminum housing with slim, discreet design
- Low weight
- No mechanical steering of speaker necessary
- Discreet integration in the room architecture
- Integral DSP control for:
  - Vertical dispersion monitoring
  - Beam angle
  - Inclination angle
  - Acoustic focus
  - 10-band fully parametric equaliser
  - Volume control
  - Internal Delay up to 350 ms / 120 m
  - Customised preset selection
  - Compressor/limiter
  - Extensive group functions
- Fohhn-Net Remote connection
- Intuitive operating software for configuring all parameters and focus simulation using version 3 of Fohhn Audio Soft or later
- Option of integration in media controls
- Complex remote control and monitoring via Fohhn Net
- Comprehensive range of mounting accessories for fixed installation
- Easy servicing due to superior design
- Green Power Standby Mode
- German Quality - Engineered and made by Fohhn®
- System integration in accordance with EN 60849 and EN 50849 (emergency and fire evacuation)



# Integration in Evacuation Systems

## Monitoring / Fault Message

- Pilot signal monitoring
- Relay with two changeover switch
- Link jack
- Monitoring of all important device parameters
- Intelligent evaluation

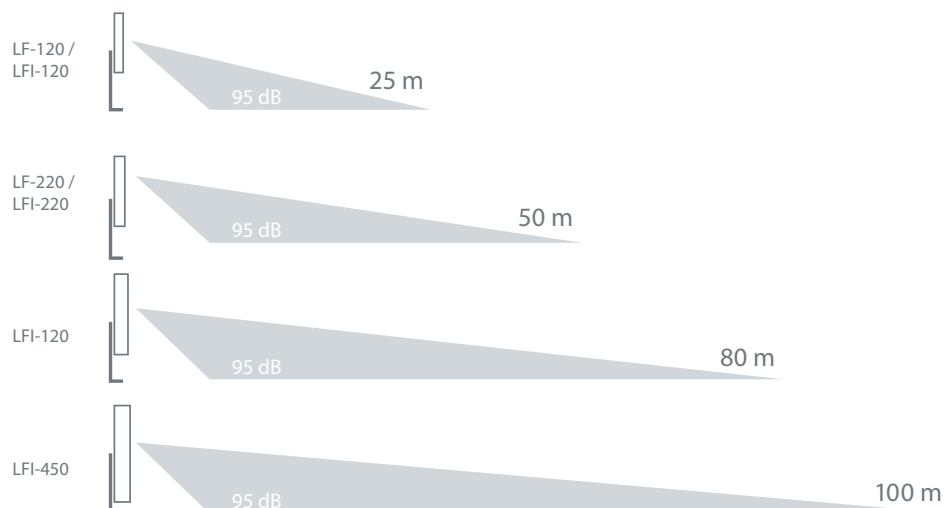
## The following faults can be monitored and displayed

- Faults relating to the internal voltage supply
- Overheating
- Short-circuit of the amplifier outputs
- Shutdown of the amplifier outputs due to earth or voltage problems
- Short-circuit of the speaker chassis
- Chassis overload (after measuring the impedance, in preparation)
- Pilot signal monitoring signal missing from Input 2 (configurable)
- Network errors (each message is confirmed)

## Fault messages are displayed and transmitted

- Fault contact (relay 2x alternate)
- Red flashing LEDs (built into input circuit board)
- Status messages in Fohhn Audio Soft
- Error messages via RS-485 and Ethernet (accessibility to other systems available)

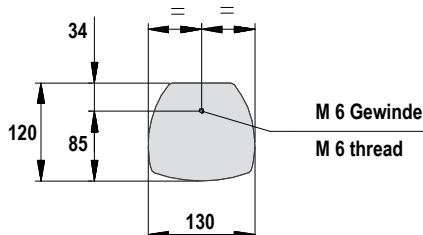
Different types versus different distances



582600.B

Electronically steerable line array LFI-120HB

**NEW**



## Applicable in EN 60849 projects

The LFI-HB120 is an active, electronically steerable line array in black.

Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8x 4" neodymium speakers, which are distinguished by their very long stroke.

The LFI series generally are installed there, where conventional methods cannot get anywhere, because of difficult acoustic conditions, and where it is important in these projects on an excellent speech intelligibility, in conjunction with a high sound pressure. The system transmits programming in real time, so it will save a lot of time when setting up.

Two separate dispersion beams are possible and they can be operated with variable acoustic beam center. Furthermore, the important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. The Linea Focus can only be configured with the Fohhn Audio Soft V3.

Optionally, depending on the application, various mounting brackets are available.



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors following choice (powder coating)

Optionally, other colors following choice for wall mounts

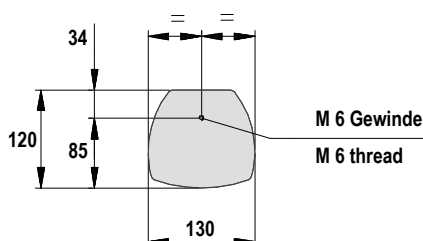


Delivery time on request.

582600.W

Electronically steerable line array LFI-120HW

**NEW**



## Applicable in EN 60849 projects

The LFI-120HB is an active, electronically steerable line array in white.

Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8x 4" neodymium speakers, which are distinguished by their very long stroke.

The LFI series generally are installed there, conventional methods cannot get anywhere, because of difficult acoustic conditions, and where it is important in these projects on an excellent speech intelligibility, in conjunction with a high sound pressure. The system transmits programming in real time, so it will save a lot of time when setting up.

Two separate dispersion beams are possible and they can be operated with variable acoustic beam center. Furthermore, the important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. The Linea Focus can only be configured with the Fohhn Audio Soft V3.

Optionally, depending on the application, various mounting brackets are available.



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors following choice (powder coating)

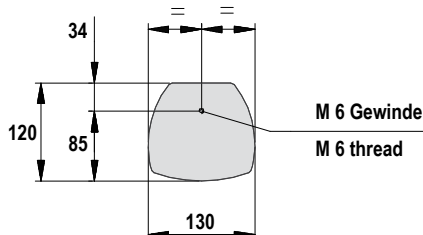
Optionally, other colors following choice for wall mounts



Delivery time on request.

582601.B

Electronically steerable line array LFI-220HB

**NEW****Applicable in EN 60849 projects**

The LFI-220HB is an active, electronically steerable line array in black.

Its integrated digital 16-channel DSP amplifier is perfectly tuned to the system. It is equipped with 16 x 4 "neodymium speakers, which are characterized by their particularly long stroke.

The LFI series generally are installed there, where conventional methods cannot get anywhere, because of difficult acoustic conditions, and where it is important in these projects on an excellent speech intelligibility, in conjunction with a high sound pressure. The system transmits programming in real time, so it will save a lot of time when setting up.

Two separate dispersion beams are possible and they can be operated with variable acoustic beam center. Furthermore, the important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. The Linea Focus can only be configured with the Fohhn Audio Soft V3.

Optionally, depending on the application, various mounting brackets are available.



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors following choice (powder coating)

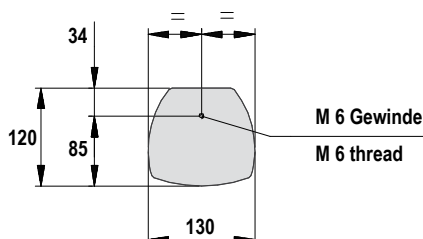
Optionally, other colors following choice for wall mounts



Delivery time on request.

582601.W

Electronically steerable line array LFI-220HW

**NEW****Applicable in EN 60849 projects**

The LFI-220HW is an active, electronically steerable line array in white.

Its integrated digital 16-channel DSP amplifier is perfectly tuned to the system. It is equipped with 16x 4 "neodymium speakers, which are distinguished by their very long stroke.

The LFI series generally are installed there, where conventional methods cannot get anywhere, because of difficult acoustic conditions, and where it is important in these projects on an excellent speech intelligibility, in conjunction with a high sound pressure. The system transmits programming in real time, so it will save a lot of time when setting up.

Two separate dispersion beams are possible and they can be operated with variable acoustic beam center. Furthermore, the important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. The Linea Focus can only be configured with the Fohhn Audio Soft V3.

Optionally, depending on the application, various mounting brackets are available.



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors following choice (powder coating)

Optionally, other colors following choice for wall mounts

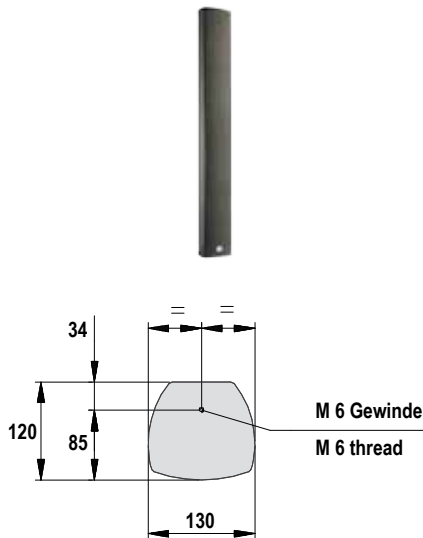


Delivery time on request.

582602.B

Electronically steerable line array LFI-350HB

**NEW**



## Applicable in EN 60849 projects

The LFI-350HB is an active, electronically steerable line array in black.

Its integrated digital 24-channel DSP amplifier is perfectly tuned to the system. It is equipped with 24 x 4 "neodymium speakers, which are characterized by their particularly long stroke.

The LFI series generally are installed there, where conventional methods cannot get anywhere, because of difficult acoustic conditions, and where it is important in these projects on an excellent speech intelligibility, in conjunction with a high sound pressure. The system transmits programming in real time, so it will save a lot of time when setting up.

Two separate dispersion beams are possible and they can be operated with variable acoustic beam center. Furthermore, the important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. The Linea Focus can only be configured with the Fohhn Audio Soft V3.

Optionally, depending on the application, various mounting brackets are available.



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors following choice (powder coating)

Optionally, other colors following choice for wall mounts

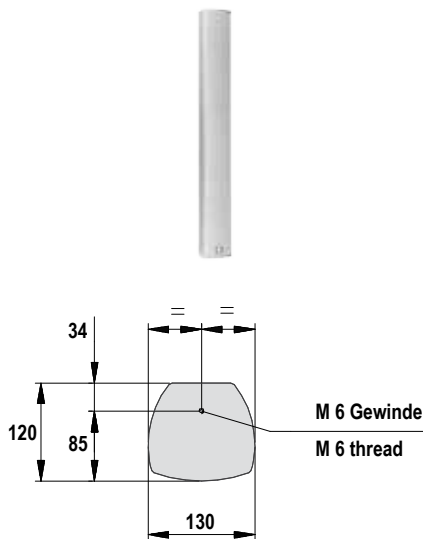


Delivery time on request.

582602.W

Electronically steerable line array LFI-350HW

**NEW**



## Applicable in EN 60849 projects

The LFI-350HW is an active, electronically steerable line array in white.

Its integrated digital 24-channel DSP amplifier is perfectly tuned to the system. It is equipped with 24 x 4 "neodymium speakers, which are characterized by their particularly long stroke.

The LFI series generally are installed there, where conventional methods cannot get anywhere, because of difficult acoustic conditions, and where it is important in these projects on an excellent speech intelligibility, in conjunction with a high sound pressure. The system transmits programming in real time, so it will save a lot of time when setting up.

Two separate dispersion beams are possible and they can be operated with variable acoustic beam center. Furthermore, the important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. The Linea Focus can only be configured with the Fohhn Audio Soft V3.

Optionally, depending on the application, various mounting brackets are available.



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors following choice (powder coating)

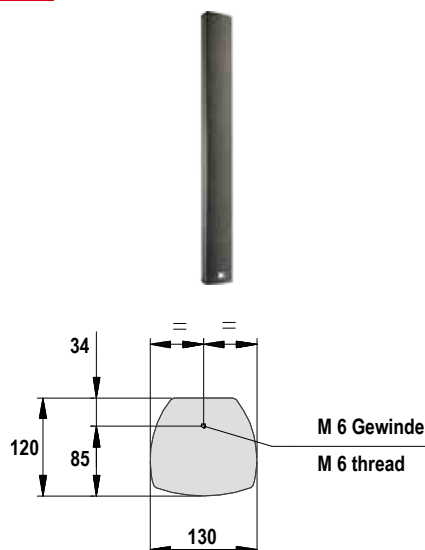
Optionally, other colors following choice for wall mounts



Delivery time on request.

582603.B

Electrically steerable line array LFI-450HB

**NEW**


### Applicable in EN 60849 projects

The LFI-450HB is an active, electronically steerable line array in black.

Its integrated digital 32-channel DSP amplifier is perfectly tuned to the system. It is equipped with 32 x 4 "neodymium speakers, which are characterized by their particularly long stroke.

The LFI series generally are installed there, where conventional methods cannot get anywhere, because of difficult acoustic conditions, and where it is important in these projects on an excellent speech intelligibility, in conjunction with a high sound pressure. The system transmits programming in real time, so it will save a lot of time when setting up.

Two separate dispersion beams are possible and they can be operated with variable acoustic beam center. Furthermore, the important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. The Linea Focus can only be configured with the Fohhn Audio Soft V3.

Optionally, depending on the application, various mounting brackets are available.



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors following choice (powder coating)

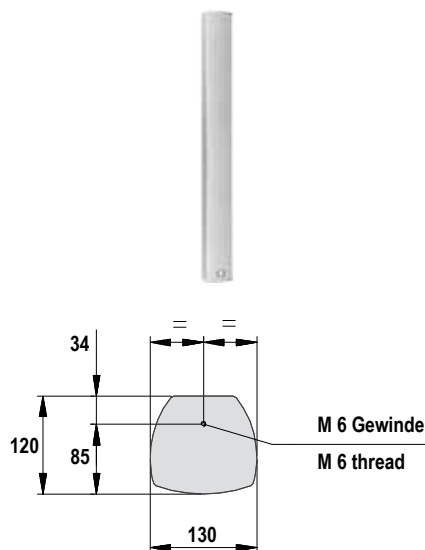
Optionally, other colors following choice for wall mounts



Delivery time on request.

582603.W

Electrically steerable line array LFI-450HW

**NEW**


### Applicable in EN 60849 projects

The LFI-450HW is an active, electronically steerable line array in white.

Its integrated digital 32-channel DSP amplifier is perfectly tuned to the system. It is equipped with 32 x 4 "neodymium speakers, which are characterized by their particularly long stroke.

The LFI series generally are installed there, where conventional methods cannot get anywhere, because of difficult acoustic conditions, and where it is important in these projects on an excellent speech intelligibility, in conjunction with a high sound pressure. The system transmits programming in real time, so it will save a lot of time when setting up.

Two separate dispersion beams are possible and they can be operated with variable acoustic beam center. Furthermore, the important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. The Linea Focus can only be configured with the Fohhn Audio Soft V3.

Optionally, depending on the application, various mounting brackets are available.



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors following choice (powder coating)

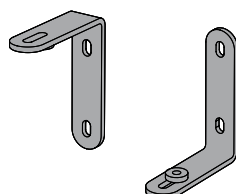
Optionally, other colors following choice for wall mounts



Delivery time on request.

582610.B

**NEW**



**WAL-1B, wall brackets for LFI-120/220HB**

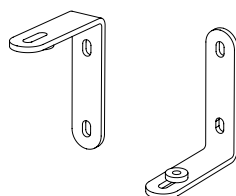
The WAL-1B is a black coated specifically for the series LFI 120-220HB. These mounting brackets are suitable for installations in which the above Speakers must be mounted flat and straight to the attachment site.



Delivery time on request.

582610.W

**NEW**



**WAL-1W, wall brackets for LFI-120/220HW**

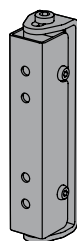
The WAL-1W is a white coated (RAL 9016) wall bracket specifically for the series LFI 120-220HW. These mounting brackets are suitable for installations in which the above Speakers must be mounted flat and straight to the attachment site.



Delivery time on request.

582611.B

**NEW**



**WLF-1B, wall bracket for LFI-120/220/350/450HB**

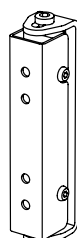
The WLF-1B is a wall bracket painted in black specifically for the series LFI-120/220/350/450HB. This wall mount is suitable for installations in which the above-mentioned Speaker can be mounted flexibly to its orientation at the attachment point. When mounting the LFI-350HB and LFI-450HB, minimum 2 of these mounts are necessary.



Delivery time on request.

582611.W

**NEW**

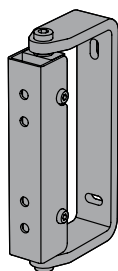


**WLF-1W, wall bracket for LFI-120/220/350/450HW**

The WLF-1W is in white (RAL 9016) painted wall bracket specifically for the series LFI-120/220/350/450HW. This wall mount is suitable for installations in which the above-mentioned Speaker can be mounted flexibly to its orientation at the attachment point. When mounting the LFI-350HW LFI-450HW, min. 2 of these brackets are installed.



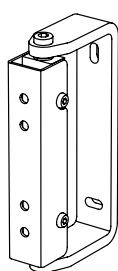
Delivery time on request.

**582612.B****NEW****WLF-2B, wall bracket for LFI-120/220/350/450HB**

The WLF-2B is a wall bracket painted in black specifically for the series LFI-120HB, LFI-220HB, LFI-350HB and LFI-450HB. This wall mount is suitable for installations in which the above-mentioned Speaker can be mounted flexibly to its orientation at the attachment point. When mounting the LFI-350HB and LFI-450HB, minimum 2 of these mounts are necessary.



Delivery time on request.

**582612.W****NEW****WLF-2W, wall bracket for LFI-120/220/350/450HW**

The WLF-2W is in white (RAL 9016) painted wall bracket specifically for the series LFI-120HW, LFI-220HW, LFI-350HW and LFI-450HW. This wall mount is suitable for installations in which the above Speakers may be mounted at right angles to its fastening point. When mounting the LFI-350HW and LFI-450HW, min. 2 of these brackets are installed.



Delivery time on request.

Loudspeaker type						Accessories
LFI-450	LFI-350	LFI-220	LFI-120	LF-220	LF-120	
		x	x			WAL-1
x*	x*	x	x	x	x	WLF-1
x*	x*	x	x	x	x	WLF-2

\* Reliable mounting of LFI-350 / 450 requires 2x WLF-1 / 2!

**582604.W****Interface module, white**

The Interface module is equipped with a 100 V transformer, adapted for 2.5 W. used with the Steerable Line Array speakers it forms the first Steerable Line Array in the world with Loop Technology. The solution is 100 % compliant to EN 60849 and EN50849 and (the module itself) EN 54-17 certified.

**Features**

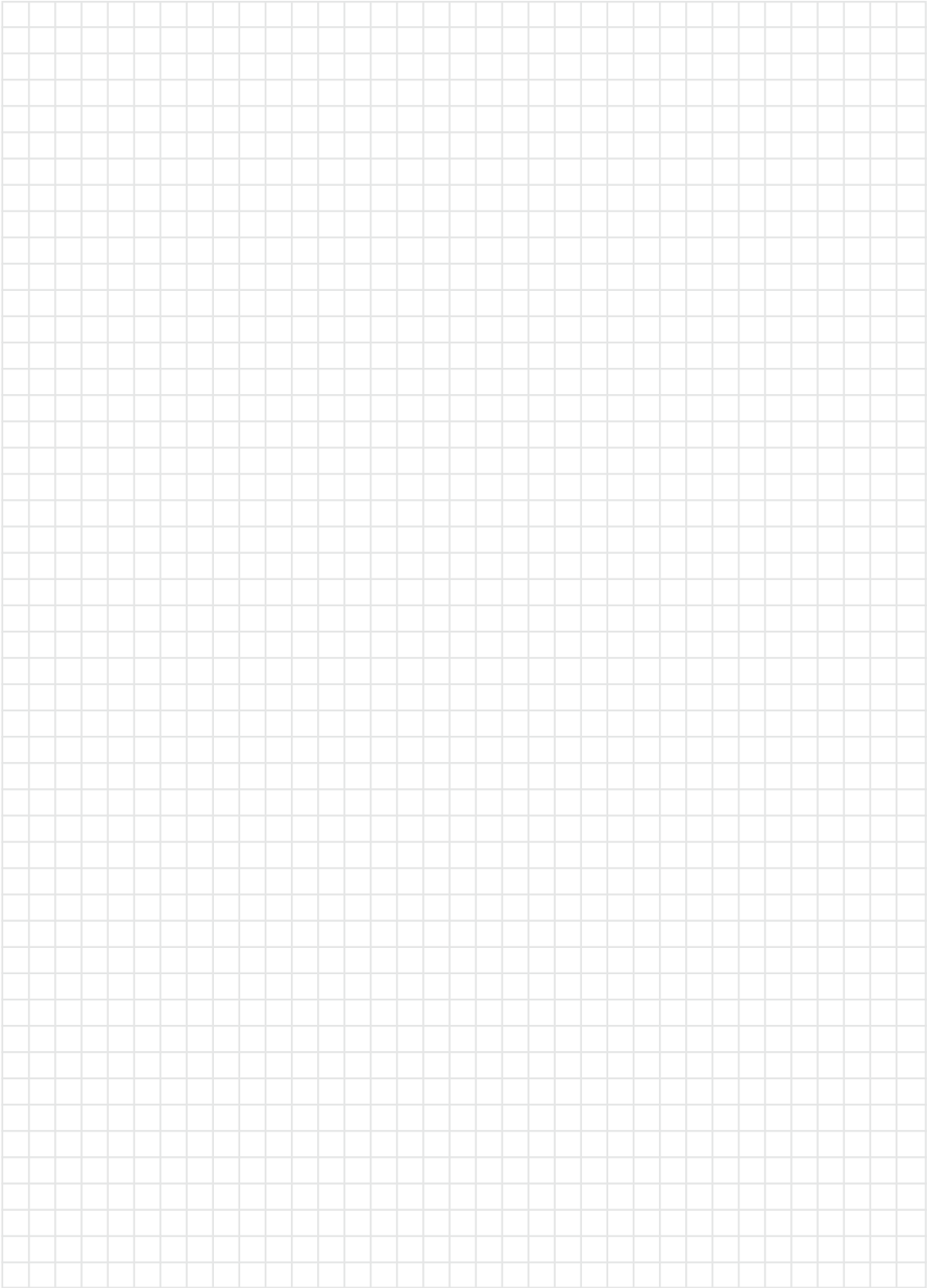
- Integrated inconspicuous design
- Simple / quick mounting
- Simple monitored signal transmission
- Integrated VARIODYN D1 loop isolator module
- CE- and RoHS-compliant

**582604.B****Interface module, black**

The Interface module is equipped with a 100 V transformer.

**Features**

- Integrated inconspicuous design
- Simple / quick mounting
- Simple monitored signal transmission
- Integrated VARIODYN D1 loop isolator module
- CE- and RoHS-compliant





## 19" Rack

VARIODYN D1 Cabinet System – w. Hinged Frame  
 VARIODYN D1 Cabinet System – w/o Hinged Frame  
 Accessories  
 Electrical Operating Rooms

106-107  
 108-109  
 110-112  
 113



## Features

- Completely detachable
- Pivoting frame and door with little effort in hinge is changeable

## VdS approval: G 210122

Stable and practical 19" swivel frame cabinet for easy installation and easy access during servicing. In rooms where the air is dusty it is mandatory to use cabinet air filters such like Part No. 584948 or 584949.

### Technical Data

Maximum weight load	250 kg
Type of protection	IP 40
Color	gray, similar to RAL 7035



- Pivot frame
- Welded 100 mm plinth, with holes for floor mounting and cable entry
- Rear and side walls detachable, on request, and ventilated
- Three-part base plate
- Roof with a brush strip and cover plate
- Front door with a 4 mm ESG pane
- Door lock with a swivel lever for 40 mm PHZ and multi point locking
- Cabinet completely grounded
- Screws set M6 (VE 50 set)

### Accessories

584921	Angled Sliding Rail (set) 250 mm deep, for hinged frames
584922	Cable Clamping Rail Set, 2 HU

## 584900

### Upright cabinet with hinged frame 24 HU

#### Technical Data

Weight	approx. 140 kg
Installation depth	450 mm
Dimensions	W: 800 mm H: 1400 mm D: 800 mm (H: incl. 100 mm base)

## 584900.R

### Upright cabinet with hinged frame 24 HU (incl. assembly)

Upright cabinet with hinged frame 24 HU, but including assembly of voice alarm components and smaller accessories.



Cables not included in prices!

## 584901

### Upright cabinet with hinged frame 40 HU

#### Technical Data

Weight	approx. 170 kg
Installation depth	450 mm
Dimensions	W: 800 mm H: 2100 mm D: 800 mm (H: incl. 100 mm base)

## 584901.R

### Upright cabinet with hinged frame 40 HU (incl. assembly)

Upright cabinet with hinged frame 40 HU, but including assembly of voice alarm components and smaller accessories.



Cables not included in prices!

## 584902

### Upright cabinet with hinged frame 24 HU - 600 mm deep

#### Technical Data

Weight	approx. 130 kg
Installation depth	450 mm
Dimensions	W: 800 mm H: 1400 mm D: 600 mm (H: incl. 100 mm base)

## 584902.R

### Upright cabinet with hinged frame 24 HU - 600 mm deep (incl. assembly)

Upright cabinet with hinged frame 24 HU - 600 mm deep, but including assembly of voice alarm components and smaller accessories.



Cables not included in prices!

## 584903

### Upright cabinet with hinged frame 40 HU - 600 mm deep

#### Technical Data

Weight	approx. 160 kg
Installation depth	450 mm
Dimensions	W: 800 mm H: 2100 mm D: 600 mm (H: incl. 100 mm base)

584903.R

**Upright cabinet with hinged frame 40 HU - 600 mm deep (incl. assembly)**

Upright cabinet with hinged frame 40 HU - 600 mm deep, but including assembly of voice alarm components and smaller accessories.



Cables not included in prices!

**Accessories**

584921

**Angle sliding rail (Set) 250 mm for swing frame**

For additional fastening of maximum two superimposed amplifiers.



584922

**Cable clamping rail set, 2 HU**

Cable interception set for Main Switching Unit (MSU).



584924

**Cable clamp rail DOM**

Cable clamp rail for DOM for mounting in a swing frame cabinet from our delivery program. The cable clamp rail is used for clean cable routing and strain relief of the cables behind a DOM. It is recommended to use such a DOM per cable rail.

**Features**

- Cable clamp rail for DOM for installation in the swing frame cabinet.



## Features

- Reversible door hinge
- Completely detachable

## VdS approval: G 210122

Due to customized preparation and quick installation this cabinet solution meets the demand for fast implementation of a network structure.

### Technical Data

Maximale Belastung	400 kg
Type of protection	IP 40
Color	gray, similar to RAL 7035



Base frame with depth-adjustable 19" level on the front and rear side, prefabricated with a 105 mm clearance to the doors  
 Front door with a 4 mm ESG pane (parsol gray)  
 Rear door steel plate  
 Door lock with a swivel lever for 40 mm PHZ and multi point locking  
 Removable side walls, lockable  
 Three-part base plate, passively ventilated  
 Roof with a brush strip and cover plate, prefabricated for the fan assembly  
 Cabinet completely grounded

### Accessories

584923 Sliding rail, 800 mm

## 584910

### Upright cabinet without hinged frame 26 HU

#### Technical Data

Weight	approx. 120 kg
Dimensions	W: 800 mm H: 1400 mm D: 800 mm (H: incl. 100 mm base)

## 584910.R

### Upright cabinet without hinged frame 26 HU (incl. assembly)

Upright cabinet without hinged frame 26 HU but including assembly of voice alarm components and smaller accessories.



Cables not included in prices!

## 584911

### Upright cabinet without hinged frame 42 HU

#### Technical Data

Weight	approx. 150 kg
Dimensions	W: 800 mm H: 2100 mm D: 800 mm (H: incl. 100 mm base)

## 584911.R

### Upright cabinet without hinged frame 42 HU (incl. assembly)

Upright cabinet without hinged frame 42 HU, but including assembly of voice alarm components and smaller accessories.



Cables not included in prices!

## 584913

### 19"- housing for VARIODYN D1 Comprio



#### Part of EN 54-16 approval

Housing for VAPA small system Comprio without swivel frame. Housing can be used as free standing housing or for wall mounting. It is 12 HU high and an area of 600 mm x 600 mm and serves for acceptance of Comprio control unit; a four-channel amplifier 4XD125B or 4XD250B with built in emergency power supply, corresponding batteries (up to 105 Ah) and a ventilation field. Furthermore there are 2 or 3 height units (corresponding which amplifier is used), e.g. for the installation of additional components such as recording units. If more space is needed, another 19" Rack from our upright cabinet line can be used.

#### Technical Data

Weight	approx. 29 kg
Dimensions	W: 600 mm H: 610 mm D: 600 mm

## 584913.R

### 19"-housing for VARIODYN D1 Comprio (incl. assembly)

#### Part of EN 54-16 approval

19"-housing for VARIODYN D1 Comprio, but including assembly of voice alarm components and smaller accessories.

Accessories


584923

Sliding rail set 800 mm

For supporting heavy 19" components in upright cabinets.

584926

19" cabinet light 230 V / 11 W



- 230 V. / 11 W with network switch and integrated power outlet
- Mounting possible to the cabinet profile or at the 19" level
- installation height 1 HU
- Incl. connection cable 3.0 m

584929

Mounting chassis (Set), with lateral electrical perforation




584930

L-form cable binding strip for cabinets, depth 800 mm

584933

Wheels for upright cabinet, with brake




Technical Data


Load capacity

Dimensions

70 kg

H: 70 mm (total)

 Only for upright cabinets without hinged frames (Part No. 584910).

 4 pieces

584931

## 19" power strip 8x with switch



- 16 A / 250 V AC
- With 8 power outlets, at an 35° angle
- Connection cable L= 2 m
- Protection against unintended switching
- Universal mounting possibilities
- Earthing contact system CEE7/III

584925

## Door contact switch with power cable for lamp



With power cable for cabinet light and Wieland connector ST 17/2, completely wired and ready for connection, with mounting materials.

584932

## Fan cartridge, roof installation, 2 fans with thermostat



In technical rooms where the air is dusty it is mandatory to use together with the fan cartridge also a cabinet air filters such like 584947 or 584948.

584948

## Filtration box (600 mm) , PU 2 pieces



Filtration box for upright cabinets with a depth of 600 mm. The filtration box is attached on the outside to the ventilation slots on the side of the upright cabinets.

584947

## Filtration box (800 mm), PU 2 pieces



Filtration box for upright cabinets with a depth of 800 mm. The filtration box is attached on the outside to the ventilation slots on the side of the upright cabinets.

584949

## Spare filter mats (600 mm or 800 mm), PU 10 pieces



Spare filter mats for the filtration boxes. Filter mat length: 800 mm. For 600 mm applications, the filter mats must be shortened (cut) correspondingly.

584937

## Document compartment 2 HU



Document compartment, including front fasteners, cylinder lock and telescopic rail full extension slide.

### Technical Data

Material  
Color  
Dimensions

sheet steel 1.5 m  
grey, similar to RAL 7035  
W: 405 mm H: 88 mm D: 75 mm (2 HU, 19")



Incl. mounting materials

584938

## Compartment base 2 HU



Compartment floor for front installation.

### Technical Data

Material	sheet steel 1.5 m
Color	grey, similar to RAL 7035
Dimensions	H: 88 mm D: 250 mm (2 HU)



Incl. mounting materials

584939

## Connector Set



In order to connect the cabinets.



Set (4 pieces) with mounting material.

584946

## Leveling feet for upright cabinets or 19" housing



Leveling feet for upright cabinet or 19" housing with zinc plated screw to compensate for uneven floors. Set of 4 pieces.

584940

## Equipotential bonding system



Equipotential bonding rail with sealable cover according to VDE 0609; connectivity options:

- 1 x round conductor RD 8-10 mm
- 1 x flat ribbon up to 30 mm width or round conductor RD 8-10 mm
- 7 x single or multi wire conductors up to 25 mm<sup>2</sup> or conductors with fine wires up to 16 mm<sup>2</sup>

583703

## Mounting kit 1



Each contains 24 cage nuts, screws and washers.

583704

## Dummy plate 2 HU



Dummy plate in VARIODYN D1 design with 1 HU to cover open slots in upright cabinets.

583705

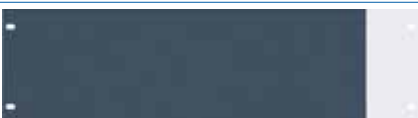
## Dummy plate 2 HU









Dummy plate in VARIODYN D1 design with 2 HU to cover open slots in upright cabinets.

583706

## Dummy plate 3 HU



Blind cover in VARIODYN D1 design with 3 HU to cover free installation space in upright cabinets.

583707	<b>Dummy plate 4 HU</b>										
	Dummy plate in VARIODYN D1 design with 4 HU to cover open slots in upright cabinets.										
583708	<b>Ventilation panel 1 HU (without branding)</b>										
	Ventilation panel in VARIODYN D1 Design with 1 height unit and without branding.										
583708.HO	<b>Ventilation panel 1 HU (Honeywell branding)</b>										
	Ventilation panel in VARIODYN D1 Design with 1 HU and with Honeywell branding.										
583709	<b>Dummy plate 4 HU (DCSF)</b>										
	Dummy plate to install a fire stations DCSF12 or DCSF1 in the upright cabinets. The dummy plate has a height of 4 HU and is available on a cutout for telephone station and the holes for the fixing screws. The mounting screws are included in shipping.										
583710	<b>Dummy plate 4 HU (DCSF/DKM)</b>										
	Dummy plate to install 2 fire stations DCSF12 or DCSF1 in the upright cabinets. The dummy plate has a height of 4 HU and is available on 2 cutouts for microphone units or DKM18. To install a digital key module DKM18, the installation kit Part No. 583312 and a standard RJ11 cable is required.										
584942	<b>Document case for 19" cabinets</b>										
	Document case in upright cabinets for storage of system documentation such as plans, protocols, etc.										
584945	<b>Heavy duty caster base for cabinets 80</b>										
	<p>Heavy duty caster base to receive an upright cabinet without the pivoting frame Part No. 584910. The rolling device is made of two heavy duty rails with rollers, which are screwed on right and left under the upright cabinet. Due to the necessary stability, the depth of the upright cabinet increases to 120 cm.</p> <table><tr><th colspan="2">Technical Data</th></tr><tr><td>Color</td><td>gray, similar to RAL 7035</td></tr><tr><td>Load capacity</td><td>450 kg</td></tr><tr><td>Weight</td><td>approx. 11 kg (per rail)</td></tr><tr><td>Dimensions</td><td>L: 1200 mm W: 100 mm H: 200 mm (incl. roller, per rail)</td></tr></table> <p> Two heavy duty rails with rollers.</p>	Technical Data		Color	gray, similar to RAL 7035	Load capacity	450 kg	Weight	approx. 11 kg (per rail)	Dimensions	L: 1200 mm W: 100 mm H: 200 mm (incl. roller, per rail)
Technical Data											
Color	gray, similar to RAL 7035										
Load capacity	450 kg										
Weight	approx. 11 kg (per rail)										
Dimensions	L: 1200 mm W: 100 mm H: 200 mm (incl. roller, per rail)										

## Electrical Operating Rooms

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It's required in some German federal States that fire and voice alarm systems (SAA) be placed in rooms isolated for fire protection. Because the necessary number of isolated rooms may not be available everywhere, this requirement often poses a problem in practice.

In the case of a project where an electrical service room is required, such as when the voice alarm system must be isolated from the fire alarm system, an appropriate solution may be requested directly from the Priorit firm by calling the following number:

Tel.: +49 6181 3640-118

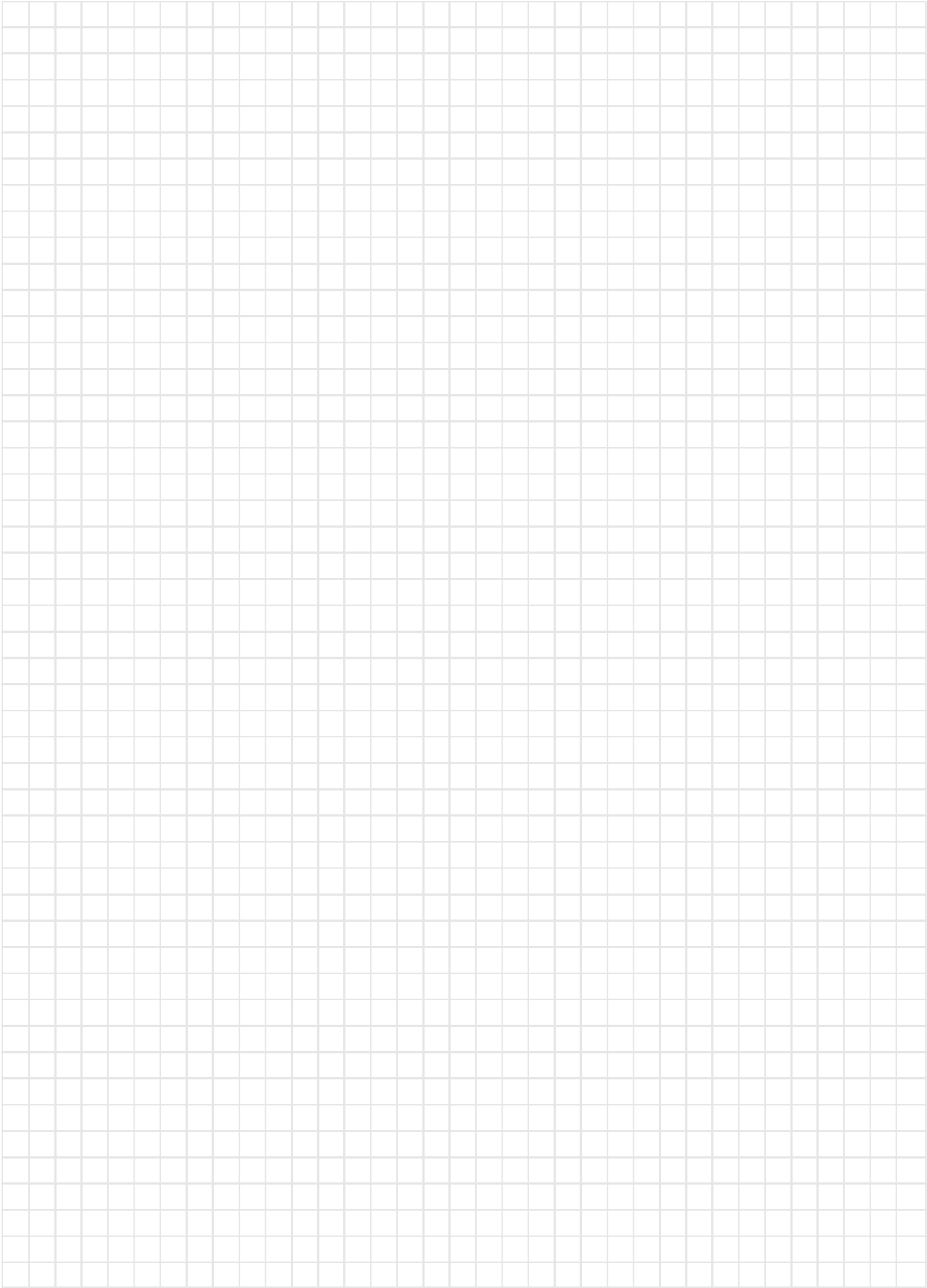
Fax: +49 6181 3640-230

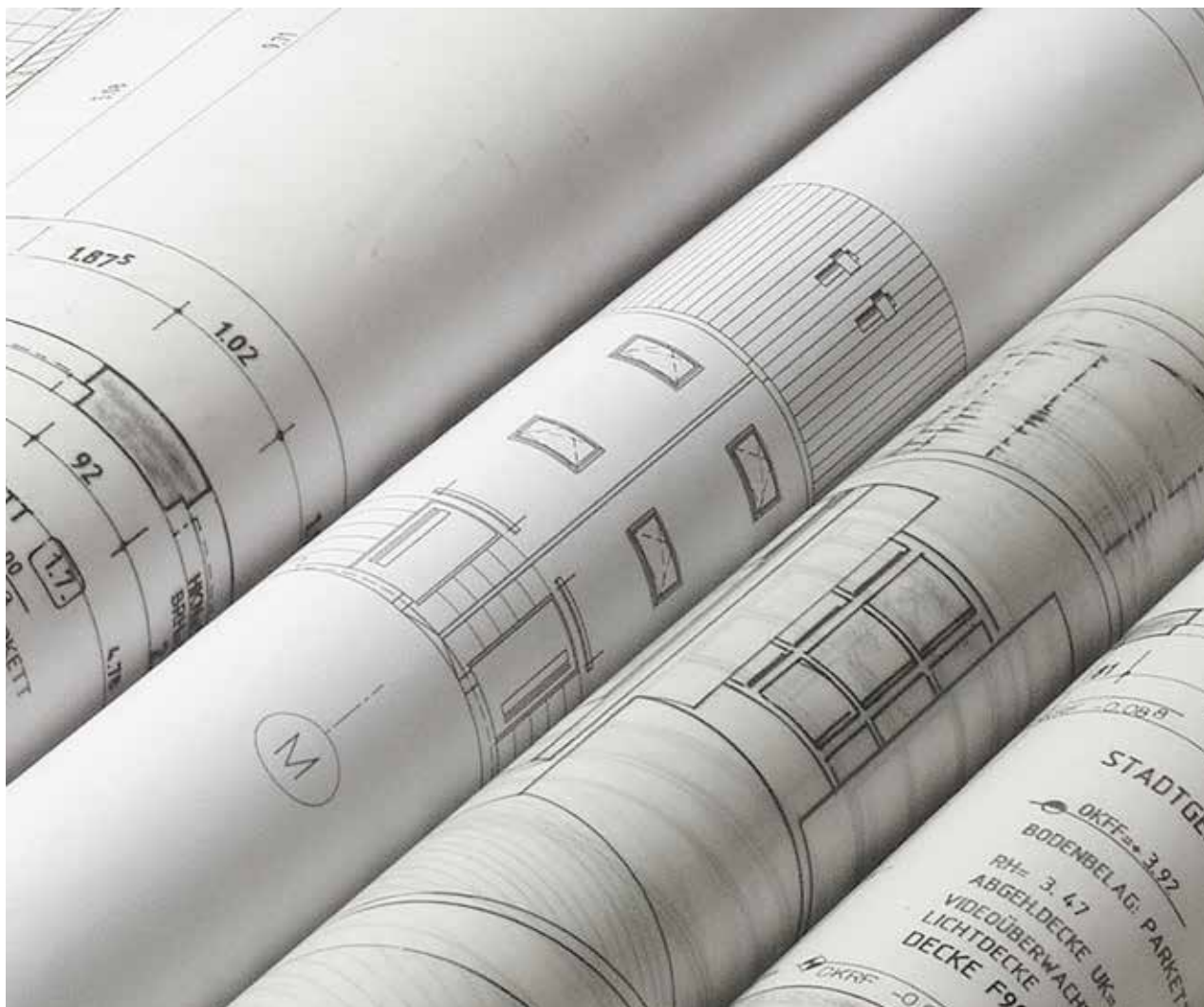
The Priorit firm specializes in the field of structural fire protection.

They'll be happy to share their expertise and will submit a proposal solution that fits the needs of their customers.

**PRIORIT AG**  
**designed security**

Technologiepark Hanau  
Rodenbacher Chaussee 6  
63457 Hanau-Wolfgang  
Deutschland  
E-Mail: [info@priorit.de](mailto:info@priorit.de)





Attachment

General terms and conditions

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## TERMS AND CONDITIONS

Except as agreed in writing the following terms and conditions apply without exception to all sales and services by Novar GmbH, Dieselstr. 2, 41469 Neuss, Germany ("Novar") to Buyer within the territory of the Federal Republic of Germany.

### 1. SOLE TERMS.

Novar's sale is expressly limited to the terms herein. Any additional or different terms or conditions on Buyer's purchase order or any other instrument, agreement, or understanding are deemed to be material alterations and are rejected and not binding upon Novar. Novar's acceptance of Buyer's purchase order is expressly conditional upon Buyer's assent to the terms and conditions contained herein in their entirety. Buyer's acceptance of delivery from Novar constitutes Buyer's acceptance of these terms and conditions in their entirety.

### 2. QUOTE/ PRICES.

a) Information in any quotations and in attached drawings and illustrations about the goods, their measurements and weights are only approximate unless they are expressly stated as being binding.

b) Content and scope of the supply are determined exclusively on the basis of Novar's written quotation and order confirmation.

c) Novar's quotations are subject to change until accepted by the Buyer. If an offer is stated as being binding, it shall be binding for 3 months from its date of issue.

d) Novar reserves the right to make technical changes to construction, form and material of good - also during the delivery time - providing these changes are reasonably acceptable to Buyer. If agreed by the parties, changes to goods or services to be supplied, Novar is entitled to claim additional costs with immediate effect and is not obliged to perform the contract until Buyer agrees to make such payments.

e) Buyer must request shipment of the entire quantity of goods ordered within 12 months from date of order; otherwise, Novar's standard prices at time of shipment may, at Novar's option, apply to those quantities actually delivered, even if already invoiced.

f) Prices are EXWorks Novar (Incoterms 2010). Unless specifically agreed in writing prices for goods do not include the cost of packaging, or services such as shipment, installation, start-up, commissioning or maintenance. If Novar has expressly agreed to ship goods, shipment costs will be as per the quote or if none mentioned the relevant catalog.

g) All tooling, designs, drawings, and other intellectual property produced or delivered hereunder are owned by Novar.

h) Order values less than the amount as set out in the price list published by Novar from time to time ("Minimum Order Value") will be subject to a handling fee defined in the then current Novar's price list

### 3. PAYMENT.

a) Unless otherwise expressly agreed in writing, all payments are to be in EUROS and are due net in Novar's account within 30 days from date of invoice.

b) All bank charges in connection with any payment shall be paid by Buyer. Checks and/or bills of exchange will only be accepted in payment's stead and in accordance with a special written agreement. They are deemed as payment only when they have been cashed in.

c) Novar at all times reserves the right to evaluate Buyer's credit standing and if Buyer fails to qualify for credit under Novar's criteria, Novar may modify or withdraw credit terms without notice and require guarantees, security or payment in advance for further deliveries of goods. If these are not provided within a reasonable period following a notice, Novar may rescind the contract and/or claim costs, losses or damages.

d) Invoices remaining unpaid after their due date will be subject to an interest charge of 8%-points above the respective base rate published by the German Federal Bank per year, unless Buyer is not responsible for the default. Buyer will pay all costs necessary for collection of unpaid amounts, including attorneys' fees, unless Buyer is not responsible for the default.

### 4. DELIVERY, EXAMINATION, RETENTION OF TITLE, COOPERATION.

a) All delivery dates are estimates unless agreed otherwise by Novar in writing.

b) Novar may make deliveries under any order in one or more shipments, to the extent that this is reasonably acceptable to Buyer, and may issue separate invoices.

c) Any fixed dates for deliveries agreed in writing are conditional upon the timely provision of all documents by the Buyer, any required authorizations and approvals, in particular of plans and the provision of all necessary information. If these requirements are not fulfilled in a timely manner, the fixed dates will be extended accordingly. This does not apply if Novar is responsible for the delay.

d) Novar may demand an appropriate extension of the delivery date in the event of subsequent changes agreed.

e) Delivery terms for goods are EX-WORKS Novar (Incoterms 2010) with all risk of loss or damage to goods passing to Buyer upon delivery to carrier.

f) Buyer must inspect all goods upon delivery without undue delay and must report i) obvious defects, transport damages, discrepancies and shortages without undue delay, and in no event later than 10 days after delivery; (ii) hidden defects without undue delay, and in no event later than 10 days after detection in writing to Novar. Otherwise all goods will be deemed delivered and accepted, unless Novar fraudulently neglected to disclose such faults. Buyer will return to Novar any goods that are rejected at its own expense. In the event Buyer refuses to accept delivery, Buyer shall be liable for increased costs incurred by Novar in accordance with section 7c).

g) Novar shall retain title in all goods delivered by Novar until payment has been made in full. In the event Buyer has credit with Novar, retention of title shall serve as security for any balance due to Novar.

h) Until title in the goods is transferred to Buyer, Buyer shall treat the goods with care; in particular it shall insure them sufficiently against fire, water and theft at reinstatement value at its own cost.

i) In the event of seizure or any other measure taken by third parties in relation to the goods, Buyer shall notify Novar in writing without undue delay so that Novar can initiate legal proceedings pursuant to § 771 of the German Code of Civil Procedure in order to prevent execution of any court order. If the third party is unable to reimburse the costs incurred in court and out of court of a claim pursuant to § 771 of the German Code of Civil Procedure, Buyer is liable for the damages incurred hereby.

j) Any processing of or alteration to the goods carried out by Buyer shall always be carried out for Novar. If the goods are processed using other items, which do not belong to Novar, Novar shall acquire co-ownership of the new item in the ratio of the value of the object delivered to the other processed items at the time of processing.

k) If the goods are irreversibly mixed using other items, which do not belong to Novar, Novar shall acquire co-ownership of the new item in the ratio of the value of the object delivered to the other mixed items at the time of mixing. If the mixing process takes place in such a way that Buyer's item must be regarded as the principal item the parties shall be deemed to have agreed that Buyer shall transfer shared title to Novar pro rata.

l) Should Buyer sell the goods delivered – whether processed or not – in due course of business, it hereby assigns any claims from selling the goods with all ancillary rights vis-à-vis its customer to Novar.

m) On good cause Buyer is obliged, if requested by Novar, to inform Novar of any assignment to a third-party purchaser and to give Novar all information required for the assertion of its rights and to hand over any documents.

n) Should the realizable value of Novar's security exceed the debt claim to be secured by more than 10 % Novar shall release part of the security – at its discretion – at the request of Buyer.

o) Buyer shall make available in time all equipment and grant access to all facilities which Novar may require to perform any services.

### 5. TAXES.

The amount of any and all applicable taxes will be added to the price and paid by Buyer, unless Buyer has provided Novar with exemption certificates acceptable to the taxing authorities.

### 6. FORCE MAJEURE, DELAY.

a) Novar is not liable for any delay in production or delivery of goods if due to a force majeure event, which includes, among other things, shortages or inability to obtain materials or components, or refusals to grant an export license or the suspension or revocation thereof, or any other acts of any government that would limit Novar's ability to perform, fire, earthquake, flood, severe weather conditions, or any other acts of God, quarantines, epidemics, pandemics, or other regional medical crisis labor strikes or lockouts, riots, strife, insurrection, civil disobedience, armed conflict, terrorism or war (or imminent threat of same), or any other cause whatsoever beyond Novar's reasonable control.

b) If the force majeure event continues for longer than 90 days, either party may terminate Buyer's purchase order. If Buyer terminates the order, Buyer will pay Novar for work performed prior to termination and all reasonable expenses incurred by Novar prior to termination. In the event of delays in delivery or performance caused by force majeure or Buyer, the date of delivery or performance shall be extended by the period of time Novar is actually delayed or as mutually agreed. Any claims for damages, costs or losses howsoever construed shall be excluded.

c) If, for reasons other than the foregoing, Novar should default or delay or not deliver goods, Buyer's sole remedy against Novar is an option to cancel Buyer's purchase order, through prior written notice to Novar. In as far as Buyer incurs damages due to a delivery delay, Novar's liability is limited to 0.5% of the order value of the delayed delivery per week up to a maximum amount of 5% of the order value of the delayed delivery. Buyer is only entitled to claim damages in lieu of performance in accordance with section 10 (limitation of liability).

### 7. TERMINATION, RETURN OF GOODS.

a) Buyer may not terminate or cancel a purchase order without Novar's prior written consent. Goods scheduled for shipment within 30 days cannot be rescheduled. Goods scheduled for shipment between 30 and 60 days may be rescheduled with Novar's prior written consent and if rescheduled beyond 60 days that quantity may not be further rescheduled. Buyer is nonetheless liable for termination charges, which may include i) a price adjustment based on the quantity of goods delivered, (ii) all costs, direct and indirect, incurred and committed for Buyer's terminated purchase order, (iii) the full cost of all unique materials required for custom goods, and (iv) a pro-rata compensation covering the prorated expenses and anticipated profits consistent with industry standards.

b) Novar may terminate a Buyer's purchase order in whole or in part upon Buyer's breach of these terms and conditions or Buyer's bankruptcy, insolvency, dissolution, or receivership proceedings without any further liability.

c) Returns of goods are only accepted in their original packed and sealed condition within six months after shipment. Software, customized products and products in opened packaging, lacquered and non-reusable parts cannot be returned. Goods can only be returned with an authorization number (RMA) obtained from Novar in advance of shipment to Novar. The RMA is specific to the relevant goods and quantity. Novar reserves the right to i) reject any return of other goods than specific to the RMA or (ii) charge an additional 25 € per return. In case of accepted returns, the purchase price shall be repaid with a deduction of up to 20% for processing, testing, administration and other overheads. The minimum charge for returns is 80.00 € per invoice. This does not affect the purchaser's rights under the product warranty. If the Purchaser withdraws from the Contract and is not entitled to do so, or if the Purchaser refuses to accept the delivery and is unjustified in doing so, the Seller is entitled to 15% of the agreed price as liquidated damages, unless the Purchaser proves that the Seller has not suffered any damage or to a lesser extent reserves the right to claim further damages.

### 8. INTELLECTUAL PROPERTY and INFRINGEMENT INDEMNIFICATION.

a) Copyright, design right and all other rights in the design and manufacture of goods supplied by Novar remain Novar's property and none is acquired by Buyer.

b) Any software provided by Novar is hereby licensed and not sold. The use of software, if provided separately or installed on a good supplied, is governed by the following terms unless a software license agreement is included with such software. The license is nonexclusive, and is limited to such equipment and/ or location(s) as are specified on the purchase order for which this instrument serves as either a quotation or acknowledgment. No other use is permitted. Novar retains for itself (or, if applicable, its suppliers) all title and ownership to any software delivered hereunder, all of which contains confidential and proprietary information and which ownership includes without limitation all rights in patents, copyrights, trademarks and trade secrets. Buyer shall not attempt any sale, transfer, sublicense, reverse compilation or disassembly or redistribution of the software. Nor shall Buyer copy, disclose or display any such software, or otherwise make it available to others (except as Novar authorizes in writing). If the software is delivered with a good, Buyer may only transfer its license of the software to a third party in conjunction with the sale by Buyer of the good on which the software is installed. Novar may terminate this license if Buyer breaches fundamental provisions under these terms and conditions.

c) Novar agrees to defend or settle any claim, suit, or proceeding brought against Buyer based upon a claim that any product manufactured and provided by Novar hereunder directly infringes any third party patent, copyright, or maskwork in the European Union and to pay costs and damages finally awarded to the third party, provided that: (i) Novar is notified promptly in writing of such claim; (ii) Novar is provided sole control of such defense or settlement using counsel of Novar's choice; (iii) and Buyer provides Novar with all available information and assistance. Novar shall not be responsible for any settlement or compromise of such claim made without Novar's written consent.

d) Novar shall have no such obligation in respect of claims arising: (i) from goods not in Novar's catalogue or goods developed pursuant to Buyer's direction, design, or specification; (ii) from goods developed by Novar using any process required by Buyer; (iii) from the combination of any goods with other elements if such infringement would have been avoided by the product not in such combination; or (iv) from goods that have been modified if such infringement would have been avoided by the unmodified product. Buyer agrees to defend, indemnify, and hold harmless Novar from and against any claims, suits, or proceedings whatsoever arising from such exclusions identified in (i)-(iv) above.

e) At any time after such a claim has been made or Novar believes it likely to be made, or a court of competent jurisdiction enters an injunction from which no appeal can be taken, Novar will have at its option the discretion to: (i) procure for Buyer the right to continue using such product; (ii) replace or modify such product; or (iii) accept the product's return and refund the purchase price less twenty percent (20%) annual depreciation from shipment date. In no event shall Novar be liable for any consequential, incidental, special, or punitive damages. The foregoing states Novar's entire liability and Buyer's exclusive remedy for any actual or alleged infringement of third party rights. This article is in lieu of and replaces any other expressed, implied, or statutory warranty against infringement.

#### 9. WARRANTY.

a) To the extent permitted by law Novar shall only be liable in accordance with the following warranty conditions, which replace any other warranties or guarantees. Any other claim shall be excluded. In particular (unless otherwise agreed in writing) Novar does not warrant the fitness of the product for any specific use which would not be the use for which the product was designed by its manufacturer.

b) Except as otherwise expressly provided herein, Novar warrants goods in all material respects to be free of defective materials and faulty workmanship and as conforming to applicable specifications and/or drawings. Unless otherwise agreed in writing commencing with Novar's date of shipment, the warranty period shall run for 12 months.

c) Goods can only be returned with an authorization number (RMA) obtained from Novar in advance of shipment to Novar. The RMA is specific to the relevant goods and quantity. Non-complying goods returned to Novar in accordance with Section 4 f) will be repaired or replaced, at Novar's option, and return-shipped at the lowest cost, transportation prepaid. The costs of transportation to Novar have to be borne by Buyer. In the event Novar fails to repair or replace the non-complying good within a reasonable time limit set by Buyer, Novar shall accept the return of such goods and refund the purchase price less 20% annual depreciation from shipment date. The foregoing states Buyer's exclusive remedy in case of defects. Buyer is only entitled to claim damages subject to section 10 (limitation of liability).

d) If so requested by Novar, the Buyer shall give Novar sufficient opportunity to verify any fault, in particular to provide faulty goods and their packaging to Novar for inspection. If the Buyer refuses, Novar shall not be liable for such defects.

e) Goods subject to wear and tear or burnout through usage shall not be deemed defective because of such wear and tear or burnout. No warranty shall apply if the defect or damage was caused by or related to installation, combination with other parts and/or products, modification to or repair of any goods other than by Novar, or resulted from Buyer's acts, omissions, misuse, or negligence.

f) Repaired or replaced goods shall be warranted for the remainder of the unused warranty term or for 90 days from shipment, whichever is longer.

g) It is Buyer's responsibility to ensure that the Goods are fit for the application in which they are used.

h) Software, if supplied separately or installed on goods supplied, and warranted by Novar, will be furnished on a medium that is free of defect in materials or workmanship under normal use for so long as the hardware and/or system is under warranty. During this period, Buyer has the rights listed in section 10 c) with regard to any defects of the software. Unless stipulated otherwise in a separate software license agreement no further warranty is given in respect of software.

i) If Novar provides any services to the Buyer, including but not limited to training or assistance with configuration and installation of the goods, Novar shall provide such services in accordance with normal industry practice at such rates as may be specified by Novar in its price list from time to time. In case of non-conformance which Novar has been notified of correctly and promptly, Novar will repeat services and/or correct accordingly. To the extent permitted by law Novar accepts no liability to the Buyer arising out of the provision of such services.

j) Novar does not represent or warrant that the goods may not be compromised or circumvented or that the goods will prevent any personal injury or property loss, burglary, robbery, fire or otherwise, or that the goods will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of burglary, robbery, fire or other events occurring without providing an alarm, but it is not an insurance or guarantee that such will not occur or that there will be no personal injury or property loss as a result.

k) These warranties are for the benefit of the Buyer only and are not assignable or transferable.

l) Subject to appropriate storage and handling according to the manual Novar grants a guarantee of durability (in the meaning of §443 II German Civil Code) for 24 months from delivery date to the customer. Excluded are device software, consumables and spare parts. At Novar's discretion the product will either be replaced or repaired. Defects which occur within the guarantee period must be reported in writing immediately on detection or if earlier when it should have been recognized.

#### 10. LIMITATION OF LIABILITY.

a) Novar is liable for intent and gross negligence on its part, on the part of its legal representatives and vicarious agents. If Novar has not acted intentionally Novar's liability is restricted to typical, foreseeable damage.

b) Novar shall also be liable in the event of negligent injury to life, body and health caused by Novar, its legal representatives or vicarious agents and in the event of wilful failure to disclose a defect. Where a guarantee is provided by Novar, then the extent of Novar's liability is to be determined pursuant to the guarantee declaration.

c) Novar shall also be liable for the negligent failure to comply with any of its obligations that are fundamental to the purpose of the agreement. If Novar has not acted intentionally Novar's liability is restricted to typical, foreseeable damage.

d) Additionally Novar shall be liable in cases of mandatory statutory liability, for example pursuant to the Product Liability Act.

e) Buyer shall indemnify Novar against any claims, damages, losses, costs and expenses incurred by Novar as a result of either claims made against Novar by third parties arising out of the combination or use of the goods with any incompatible ancillary products that may be connected to the goods or any other matter for which Novar would not be liable to Buyer under these terms and conditions.

f) Other than stated herein any liability of Novar is excluded, regardless of the theory of liability, whether based in contract, tort, indemnity or otherwise.

g) Buyer shall notify and consult with Novar without undue delay and comprehensively if it intends to take legal recourse in accordance with the afore-mentioned provision. Buyer has to allow Novar to investigate and examine the damages.

#### 11. RECOMMENDATIONS.

Any recommendations or assistance provided by Novar concerning the use, design, application, or operation of the goods shall not be construed as representations or warranties of any kind, express or implied, and such information is accepted by Buyer at Buyer's own risk and without any obligation or liability to Novar. It is the Buyer's sole responsibility to determine the suitability of the goods for use in the Buyer's application(s). Other than in cases of statutory obligations the failure by Novar to make recommendations or provide assistance shall not give rise to any liability to Novar.

#### 12. LAWS.

a) Buyer will comply with all applicable laws, regulations, and ordinances of any governmental authority in any country having proper jurisdiction, including, without limitation, those laws of the United States of America or other countries that regulate the import or export of the goods provided by Novar and shall obtain all necessary import/export licenses in connection with any subsequent import, export, re-export, transfer, and use of all goods, technology, and software purchased, licensed, and received from Novar. Unless otherwise mutually agreed in writing, Buyer agrees that it will not use or permit third parties to use the goods in connection with any activity involving nuclear fission or fusion, any use or handling of any nuclear material, or any nuclear, chemical, or biological weapons.

b) Buyer shall not sell, transfer, export or re-export any goods or software for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor use the goods or software in any facility which engages in activities relating to such weapons or missiles. In addition, the goods or software may not be used in connection with any activity involving nuclear fission or fusion, or any use or handling of any nuclear material until Buyer, at no expense to Novar, has insurance coverage, indemnities, and waivers of liability, recourse and subrogation, acceptable to Novar and adequate in Novar's opinion to protect Novar against any type of liability.

c) Goods and services delivered by Novar hereunder will be produced and supplied in compliance with all applicable laws and regulations in the Federal Republic of Germany. Buyer confirms that it will ensure that all goods are properly installed and used in accordance with the applicable safety at work laws and regulations, and Buyer will indemnify Novar in respect of any costs, claims, actions or liability arising out of that Act, or otherwise arising out of the supply by Buyer or use by others of the goods, unless this is not caused by Buyer's failure.

#### 13. PRECLUSION AGAINST SETOFF.

Buyer is only entitled to set off any amount against any amount due or to become due from Novar to Buyer or its affiliates that are undisputed or final absolute.

#### 14. WEEE.

a) Prices do not include the costs of recycling goods covered by the European WEEE Directive 2002/96/EC and such costs may be added to the prices quoted.

b) Unless a charge has been made therefore under section 15 a above, if the provisions of the WEEE Directive 2002/96/EC as implemented in any local jurisdiction apply to goods, the financing and organization of the disposal of waste electrical and electronic equipment are with the exception of goods which are b2c as per Novar catalog the responsibility of the Buyer who herewith accepts this responsibility, and Buyer will indemnify Novar in respect of all such liabilities. The Buyer will handle the collection, processing and recycling of the goods in accordance with all applicable laws and regulations, and shall pass on this obligation to the final user of the goods. Failure by the Buyer to comply with these obligations may lead to the application of criminal sanctions in accordance with local laws and regulations.

#### 15. APPLICABLE LAW.

These terms and conditions are subject to the Laws of the Federal Republic of Germany. These terms and conditions are excluded from the United Nations Convention on Contracts for the International Sale of Goods, 1980, and any successor thereto. The competent court at the seat of Novar will have exclusive jurisdiction to adjudicate any dispute related to these terms and conditions.

#### 16. INDEMNIFICATION.

Buyer shall indemnify Novar for all costs and damages, including attorneys' fees, suffered by Novar as a result of Buyer's culpable actual or threatened breach of these terms and conditions.

#### 17. MISCELLANEOUS.

a) The parties may exchange confidential information during the performance or fulfillment of any supply. All confidential information shall remain the property of the disclosing party and shall be kept confidential by the receiving party for a period of 10 years following the date of disclosure. These obligations shall not apply to information which is: (i) publicly known at the time of disclosure or becomes publicly known through no fault of recipient, (ii) known to recipient at the time of disclosure through no wrongful act of recipient, (iii) received by recipient from a third party without restrictions similar to those in this section, or (iv) independently developed by recipient. Each party shall retain ownership of its confidential information, including without limitation all rights in patents, copyrights, trademarks and trade secrets. A recipient of confidential information may not disclose such confidential information without the prior written consent of the disclosing party, provided that Novar may disclose confidential information to its affiliated companies in the sense of §§15ff AktG, and its and their employees, officers, consultants, agents, and contractors.

b) These terms and conditions (including those agreed separately in writing) constitute the entire agreement of Novar and Buyer, superseding all prior agreements or understandings, written or oral, and cannot be amended except by a mutually executed writing.

c) Buyer may not assign any rights or duties hereunder without Novar's written prior consent. Novar may subcontract its obligations hereunder without Buyer's consent. No representation, warranty, course of dealing, or trade usage not contained or expressly set forth herein will be binding on Novar.

d) Headings and captions are for convenience of reference only and do not alter the meaning or interpretation of these terms and conditions.

e) No failure by Novar to enforce at any time for any period the provisions hereof shall be construed as a waiver of such provision or of the right of Novar to enforce thereafter each and every provision.

f) In the event any provision herein is determined to be illegal, invalid, or unenforceable, the validity and enforceability of the remaining provisions shall not be affected and, in lieu of such provision, a provision as similar in terms as may be legal, valid, and enforceable shall be added hereto.

g) Provisions herein which by their very nature are intended to survive termination, cancellation, or completion of supply shall survive such termination, cancellation, or completion.

h) All stenographic and clerical errors are subject to correction. i) These terms and conditions shall confer no benefit on any third party.

#### 18. LANGUAGE.

The German language version of these terms and conditions will prevail in case of conflict with any translations provided for convenience purposes.

Neuss, March 2015



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**Honeywell**

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