



Products for 2018

PA/VA System VARIODYN D1

1	General Instructions	3
	Preface	3
2	VARIODYN D1	6-69
	General	7
	Digital Output Module	8-9
	VARIODYN D1 Comprio	10-18
	DOM Flex Solution	19-22
	Loop Technology LIM	23-24
	Power Amplifier	25-28
	Digital Call Station	29-40
	Mains Switching Unit	41-42
	System Communication Unit	43
	Universal Interface Module	44-45
	Additional Components / Audio Devices	46
	Power Supply	47-49
	Accessories	50-56
	Surge Protection Module	57-58
	FACP Interface	59-61
	VARIODYN D1 PAMMI Plus	62-64
	Extron Media Control	65
	Cable Overview	66-69
3	Loudspeaker EN 54-24	72-88
	Ceiling Loudspeaker	72-77
	Cabinet Loudspeaker	78-81
	Horn Loudspeaker	82-83
	Sound Projector	84-85
	Spherical Loudspeaker	86
	Column Loudspeaker	87-88
4	Standard Loudspeaker	90-96
	Ceiling Loudspeaker	90
	Cabinet Loudspeaker	91-92
	Sound Projector	93
	Horn Loudspeaker	94
	Spherical Loudspeaker	95
	Accessories	96
5	Active Beam Steering Systems	98-107
	General	98-101
	DLI-130	102
	DLI-230	103
	LFI-350	104
	LFI-450	105
	Accessories	106-107
6	Passive Beam Steering Systems	110-114
	LEN-20	110
	LEN-60	111
	LEN-100	112
	LEN-150	113
	LEN-220	114

Contents

7	Ex Signalling Devices	116-117
	Acoustical devices	116
	Optical devices	117
8	19" Rack	120-128
	VARIODYN D1 Cabinet System – w. Hinged Frame	120-121
	VARIODYN D1 Cabinet System – w/o Hinged Frame	122-124
	Accessories	125-127
	Electrical Operating Rooms	128
9	Attachment	130-135
	Part Number Index	130-131
	Keyword Index	132-133
	General terms and conditions	134-135

Would you prefer it with colour? ...

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
- Generation of a bill of material which can be sent via email in CSV-format
- Comprehensive, intuitive search function

Due to so many advantages we'd like to invest more in further development steps for our 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 the 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.

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. 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.

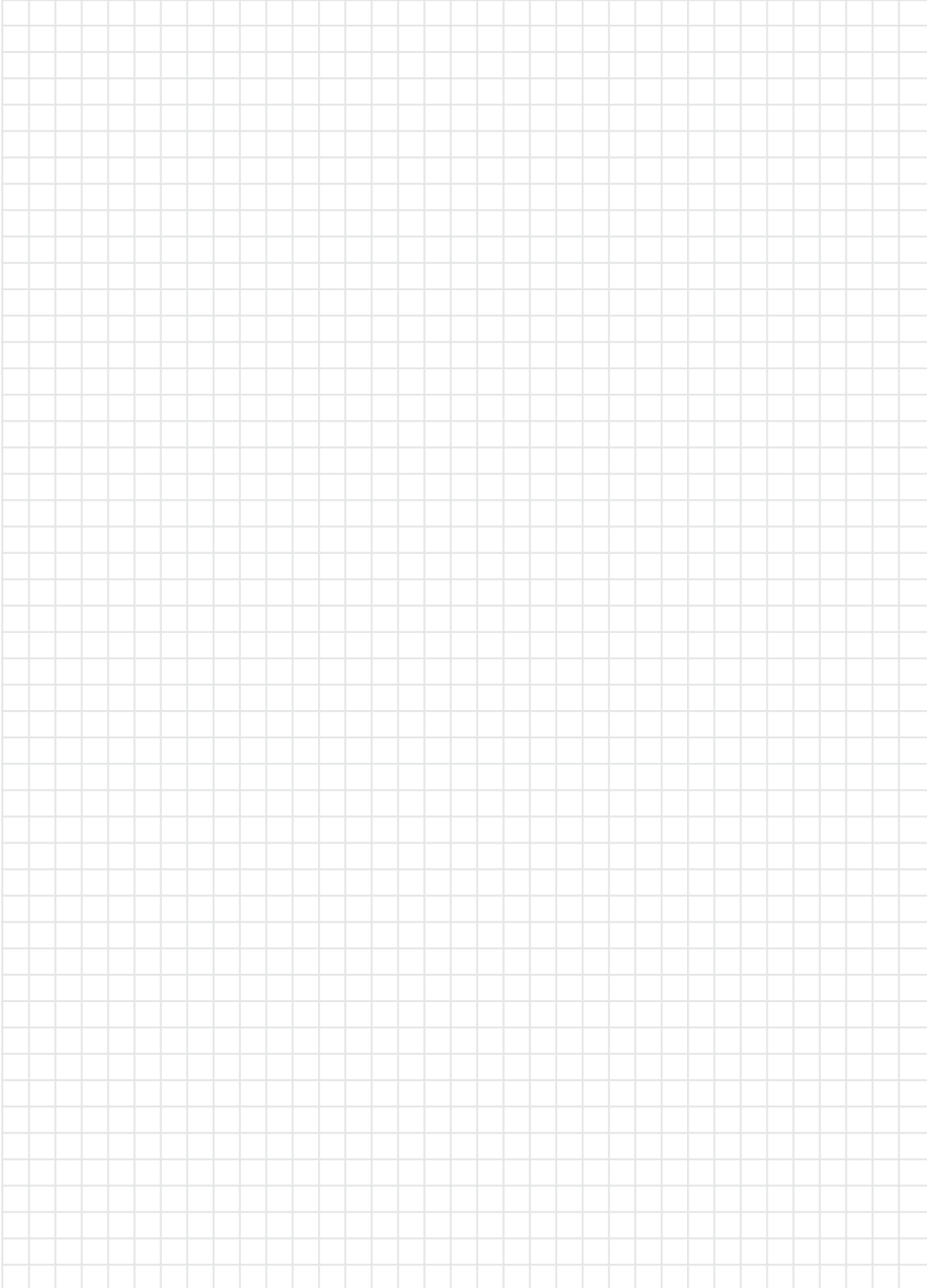
www.honeywell.com

www.honeywellvoicealarm.com

We are looking forward to further successful cooperation and business!

Your Honeywell Notification Team

Notes

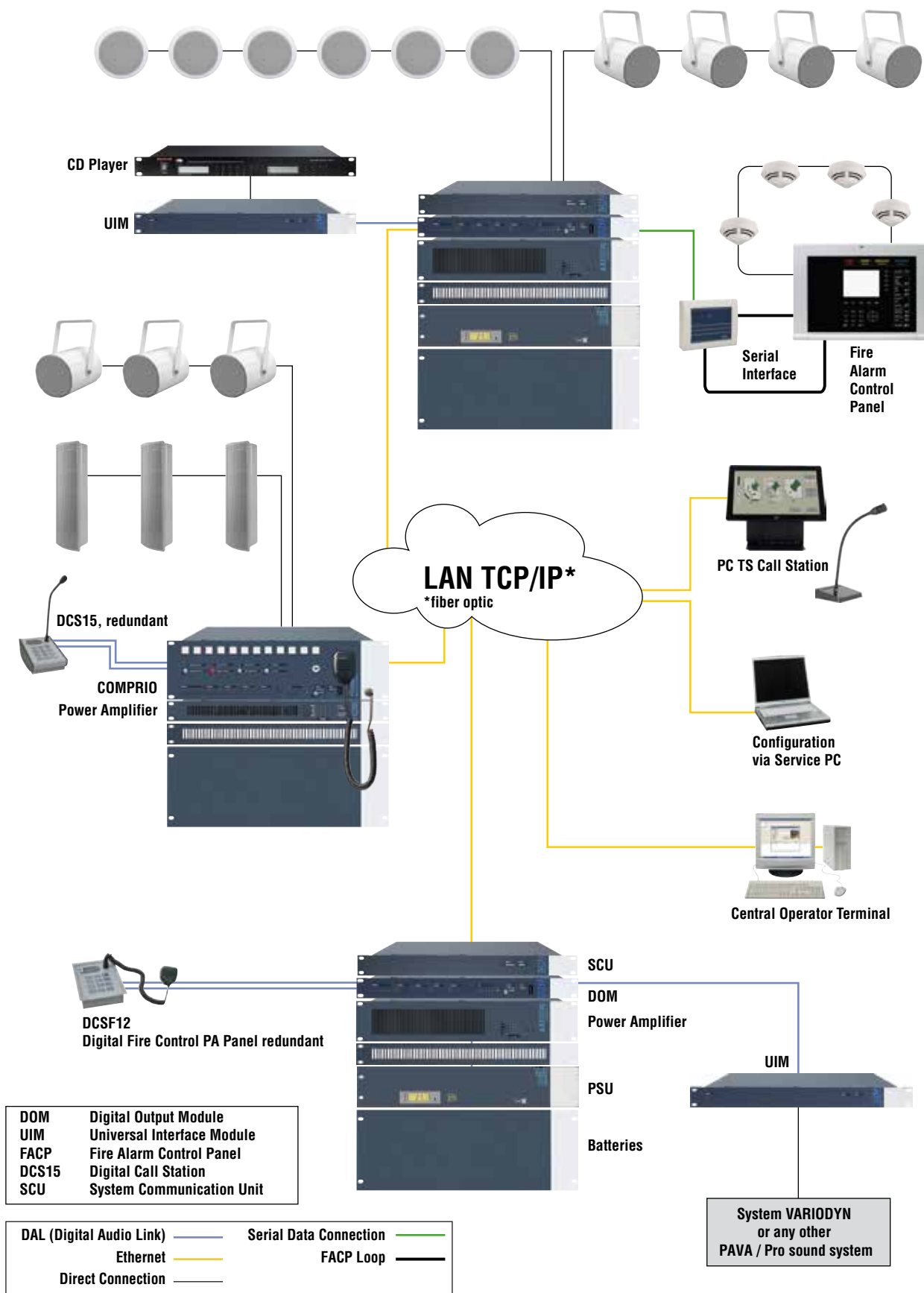




VARIODYN D1

General	7
Digital Output Module	8-9
VARIODYN D1 Comprio	10-18
DOM Flex Solution	19-22
Loop Technology LIM	23-24
Power Amplifier	25-28
Digital Call Station	29-40
Mains Switching Unit	41-42
System Communication Unit	43
Universal Interface Module	44-45
Additional Components / Audio Devices	46
Power Supply	47-49
Accessories	50-56
Surge Protection Module	57-58
FACP Interface	59-61
VARIODYN D1 PAMMI Plus	62-64
Extron Media Control	65
Cable Overview	66-69

VARIODYN D1



Dear Business Partners,

As always, this new updated edition of our VARIODYN D1 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 has gained some new products and we can provide improved features on the existing products.

Clearly the highlight is our new firmware for the VARIODYN D1 DOM. 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. 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. We have also included cutting edge Boolean algebra like "and" and "or" functions to program advanced 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 always use the latest edition for your projects.

One more highlight is our new DCS plus call station with DKM plus button extension. This new product will offer a proven and increased handling for operators, because similar function offering like today's DCS15 but additional red LED ring close to the microphone capsule to signalize visual "ready to speak" and additional LED signalization for system fault.

Our management system PAMMI is now in a new version available and enables the use of a microphone on the PC hosting the PAMMI software.

The catalogue includes our standard and EN 54-24 certified loudspeaker portfolio and we have now added some Ex Signaling devices (ATEX). Additionally to our Active Beam Steering Systems offering, which is btw. now updated to the new product range, we have also added the new and EN 54-24 certified column loudspeaker types LEN from the supplier Fohhn.

We cannot list all kind of products from several 3rd party suppliers into this catalogue. For example, if you are searching for Dante audio networking or a Critical Communication over IP (CCoIP) solution, we could offer you products from Extron Electronics and Scanvest. Please ask our international sales support for further details.

Additional information: 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 serial interfaces to ESSER, Notifier or GENT FACP with great benefits 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. 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

- Compliant with EN 60849 and EN 50849
- EN 54-16 certified
- 16 audio slots giving a total of 1 hour memory
- 4 independent amplifier channels suitable for use with spurs, zones or loop technology. Built in parametric equalizer, compressor limiter and delay function (upto 9.9 seconds)
- All functions of an alarm and evacuation system
- Network into a large system via Ethernet connection
- Offers full monitoring of the system functions
- Automatic and dynamic switching to redundant emergency amplifiers
- Automatic volume control (AVC) even during announcements
- Remote monitoring and configuration via the network
- 24 V DC emergency power supply

Part of EN 54-16 approval

The 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. Large or complex system configurations can be implemented through the networking of multiple DOMs via Ethernet. The DOM offers a high level of automatic and constant monitoring as standard. All connected power amplifiers are permanently monitored by the DOM and if a power amplifier becomes faulty, it can be replaced dynamically by a backup amplifier or a backup amplifier channel. The switchover is done automatically by the DOM. The loudspeaker lines are permanently monitored for short circuit, ground fault, and 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 such as 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

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) |
| 581310 | Measuring microphone for D1 AVC in a 5" recessed ceiling housing |
| 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

- Compliant with EN 60849 and EN 50849
- EN 54-16 certified
- 16 audio slots giving a total of 1 hour memory
- 4 independent amplifier channels suitable for use with spurs, zones or loop technology. Built in parametric equalizer, compressor limiter and delay function (upto 9.9 seconds)
- All functions of an alarm and evacuation system
- Network into a large system via Ethernet connection
- Offers full monitoring of the system functions
- Automatic and dynamic switching to redundant emergency amplifiers
- Automatic volume control (AVC) even during announcements
- Remote monitoring and configuration via the network
- 24 V DC emergency power supply

Part of EN 54-16 approval

The 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. Large or complex system configurations can be implemented through the networking of multiple DOMs via Ethernet. The DOM offers a high level of automatic and constant monitoring as standard. All connected power amplifiers are permanently monitored by the DOM and if a power amplifier becomes faulty, it can be replaced dynamically by a backup amplifier or a backup amplifier channel. The switchover is done automatically by the DOM. The loudspeaker lines are permanently monitored for short circuit, ground fault, and 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 such as 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 DOM4-24 is equipped with 4 independent amplifier channels in order to operate 24 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	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

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)
581310	Measuring microphone for D1 AVC in a 5" recessed ceiling housing
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 more cost effective, 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 a separate backup amplifier is no longer required.. 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.

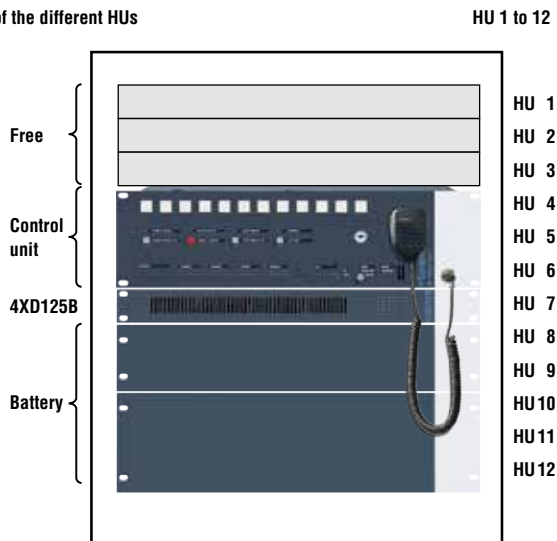
The programming is still carried out easily and conveniently using the Designer software tool. An VARIODYN D1 expert can jump into the Comprio at full speed without any additional effort and use the new components with no problems. That saves time, money, warehouse space, and minimizes additional training costs. If desired, the Part No. 583308 handheld microphone can be plugged directly into the Comprio.

Comprio system (4 variants)

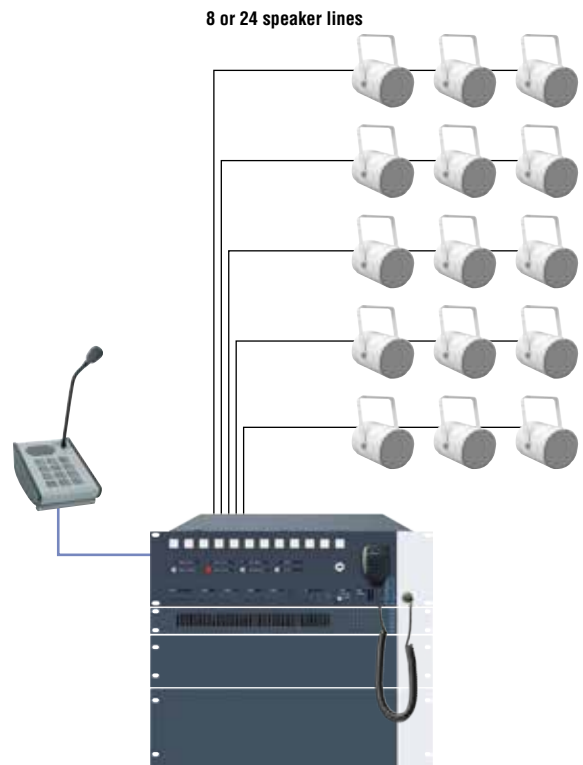
- 583940 VARIODYN D1 Comprio 4-8 (standalone without ethernet)
- 583941 VARIODYN D1 Comprio 4-24 (standalone without ethernet)
- 583944 VARIODYN D1 Comprio 4-8 net (network variant)
- 583945 VARIODYN D1 Comprio 4-24 net (network variant)

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
- 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
- 1 audio output and 2 audio inputs
- 3 DAL port
- 1 TWI port

Part of EN 54-16 approval

Comprio is the central control panel of a VARIODYN D1 system for small and medium sized projects. When combined with the 4XD125B or 4XD250B four channel amplifiers, they provide a complete voice alarm system for projects such as schools and small hotels. The emergency power supply is integrated into the 4XD125B and 4XD250B four channel amplifiers. The system is compliant with voice alarm standards and elector-acoustic emergency warning systems DIN VDE 0833-4, EN 60849 and EN 50849.

All amplifiers are permanently monitored and in the case of a fault a backup amplifier can automatically replace it. If a 4XD125B or 4XD250B amplifier is used it is possible to use three channels to power the speaker zones and use the fourth channel as a backup amplifier. All loudspeaker zones are permanently monitored for short circuit, ground fault, failures and impedance deviation. Faulty loudspeaker zones are separated in a non-reactive manner. Any errors are recognized, displayed and recorded within seconds, ensuring all relevant standards are met.

The Comprio control panel contains storage capacity pre-recorded audio messages which can be used for alarm texts and signals (evacuation alarm/ all clear signals) and caution signals (gongs). The volume of each source and each amplifier channel can be controlled. Additional filters such as parametric equalizer, high-and low pass filter can be programmed. For special applications such as tunnels a delay is available of to 9.9 seconds can be programmed.

The Comprio control panel can be connected to four independent amplifier channels to operate a total of 8 loudspeaker zones or four loudspeaker rings in VARIODYN D1 loop technology. It is also possible to mix spur and loop technology.

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 2 audio line in ports, and / or up to 3 microphone inputs, 3 DAL connections, and one TWI port.

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

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

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

Technical Data

Transmission range	20 ... 20000 Hz
Load impedance	typ. 200 Ω
Harmonic distortion at nominal level	< 0.03 %
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 60 °C
Air humidity	15 ... 90 %
Weight	approx. 5.7 kg
Dimensions	W: 483 mm H: 133 mm D: 345 mm (3 HE, 19")
Declaration of Performance	DoP-00376130701

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
581732	Battery 12 V / 65 Ah
581340	Periphery clamp for top-hat rail
583466A	Patch cable CAT5, 0.5 m gray (periphery)
583467A	Patch cable CAT5, 1 m gray (periphery)
583469A	Patch cable CAT5, 3 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	Measuring microphone for D1 AVC in a 5" recessed ceiling housing
581316	Microphone, for AVC
583703	Mounting set 1
583332	Overvoltage protection for UIM contacts

583941

VARIODYN D1 Comprio 4-24 (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
- 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
- 1 audio output and 2 audio inputs
- 3 DAL port
- 1 TWI port

Part of EN 54-16 approval

Comprio is the central control panel of a VARIODYN D1 system for small and medium sized projects. When combined with the 4XD125B or 4XD250B four channel amplifiers, they provide a complete voice alarm system for projects such as schools and small hotels. The emergency power supply is integrated into the 4XD125B and 4XD250B four channel amplifiers. The system is compliant with voice alarm standards and elector-acoustic emergency warning systems DIN VDE 0833-4, EN 60849 and EN 50849.

All amplifiers are permanently monitored and in the case of a fault a backup amplifier can automatically replace it. If a 4XD125B or 4XD250B amplifier is used it is possible to use three channels to power the speaker zones and use the fourth channel as a backup amplifier. All loudspeaker zones are permanently monitored for short circuit, ground fault, failures and impedance deviation. Faulty loudspeaker zones are separated in a non-reactive manner. Any errors are recognized, displayed and recorded within seconds, ensuring all relevant standards are met.

The Comprio control panel contains storage capacity pre-recorded audio messages which can be used for alarm texts and signals (evacuation alarm/ all clear signals) and caution signals (gongs). The volume of each source and each amplifier channel can be controlled. Additional filters such as parametric equalizer, high-and low pass filter can be programmed. For special applications such as tunnels a delay is available of to 9.9 seconds can be programmed.

The Comprio control panel can be connected to 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.

The Comprio further features 12 contact inputs, of which eight can be programmed with supervision, 8 potential-free relay outputs, one audio line out and up to 2 audio line in ports, and / or up to 3 microphone inputs, 3 DAL connections, and one TWI port.

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

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

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

Technical Data

Transmission range	20 ... 20000 Hz
Load impedance	typ. 200 Ω
Harmonic distortion at nominal level	< 0.03 %
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 60 °C
Air humidity	15 ... 90 %
Weight	approx. 6.8 kg
Dimensions	W: 483 mm H: 133 mm D: 345 mm (3 HE, 19")
Declaration of Performance	DoP-00376130701

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
581732	Battery 12 V / 65 Ah
581340	Periphery clamp for top-hat rail
583466A	Patch cable CAT5, 0.5 m gray (periphery)
583467A	Patch cable CAT5, 1 m gray (periphery)
583469A	Patch cable CAT5, 3 m gray (periphery)
583483	Patch cable CAT5, 3 m blue (DAL)
583452.21	Cable for cabinet rear panel DOM4-24
583477.21	Output cable 2 amplifier DOM
583491	Input cable DOM amplifier, 0.5 m green
583496	End-of-line module (EOL)
581310	Measuring microphone for D1 AVC in a 5" recessed ceiling housing
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 PA/VA 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.

Technical Data

Declaration of Performance DoP-00376130701

583947

Product package Comprio 4-24 and amplifier 4XD125B



Part of EN 54-16 approval

Product package for a small PA/VA 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.

Technical Data

Declaration of Performance DoP-00376130701

583948

Product package Comprio 4-8 and amplifier 4XD250B



Part of the EN 54-16 approval

Product package for a small PA/VA 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.

Technical Data

Declaration of Performance DoP-00376130701

583949

Product package Comprio 4-24 and amplifier 4XD250B



Part of the EN 54-16 approval

Product package for a small PA/VA 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.

Technical Data

Declaration of Performance DoP-00376130701

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
- 1 audio output and 2 audio inputs
- 3 DAL port
- 1 TWI port

Part of EN 54-16 approval

Comprio is the central control panel of a VARIODYN D1 system for small and medium sized projects. When combined with the 4XD125B or 4XD250B four channel amplifiers, they provide a complete voice alarm system for projects such as schools and small hotels. The emergency power supply is integrated into the 4XD125B and 4XD250B four channel amplifiers. The system is compliant with voice alarm standards and elector-acoustic emergency warning systems DIN VDE 0833-4, EN 60849 and EN 50849.

All amplifiers are permanently monitored and in the case of a fault a backup amplifier can automatically replace it. If a 4XD125B or 4XD250B amplifier is used it is possible to use three channels to power the speaker zones and use the fourth channel as a backup amplifier. All loudspeaker zones are permanently monitored for short circuit, ground fault, failures and impedance deviation. Faulty loudspeaker zones are separated in a non-reactive manner. Any errors are recognized, displayed and recorded within seconds, ensuring all relevant standards are met.

The Comprio control panel contains storage capacity pre-recorded audio messages which can be used for alarm texts and signals (evacuation alarm/ all clear signals) and caution signals (gongs). The volume of each source and each amplifier channel can be controlled. Additional filters such as parametric equalizer, high-and low pass filter can be programmed. For special applications such as tunnels a delay is available of to 9.9 seconds can be programmed.

The Comprio control panel can be connected to 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.

The Comprio further features 12 contact inputs, of which eight can be programmed with supervision, 8 potential-free relay outputs, one audio line out and up to 2 audio line in ports, and / or up to 3 microphone inputs, 3 DAL connections, and one TWI port.

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

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

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

Technical Data

Transmission range	20 ... 20000 Hz
Load impedance	typ. 200 Ω
Harmonic distortion at nominal level	< 0.03 %
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 60 °C
Air humidity	15 ... 90 %
Weight	approx. 5.7 kg
Dimensions	W: 483 mm H: 133 mm D: 345 mm (3 HE, 19")
Declaration of Performance	DoP-00376130701

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
581732	Battery 12 V / 65 Ah
581340	Periphery clamp for top-hat rail
583466A	Patch cable CAT5, 0.5 m gray (periphery)
583467A	Patch cable CAT5, 1 m gray (periphery)
583469A	Patch cable CAT5, 3 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	Measuring microphone for D1 AVC in a 5" recessed ceiling housing
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
- 1 audio output and 2 audio inputs
- 3 DAL port
- 1 TWI port

Part of EN 54-16 approval

Comprio is the central control panel of a VARIODYN D1 system for small and medium sized projects. When combined with the 4XD125B or 4XD250B four channel amplifiers, they provide a complete voice alarm system for projects such as schools and small hotels. The emergency power supply is integrated into the 4XD125B and 4XD250B four channel amplifiers. The system is compliant with voice alarm standards and elector-acoustic emergency warning systems DIN VDE 0833-4, EN 60849 and EN 50849.

All amplifiers are permanently monitored and in the case of a fault a backup amplifier can automatically replace it. If a 4XD125B or 4XD250B amplifier is used it is possible to use three channels to power the speaker zones and use the fourth channel as a backup amplifier. All loudspeaker zones are permanently monitored for short circuit, ground fault, failures and impedance deviation. Faulty loudspeaker zones are separated in a non-reactive manner. Any errors are recognized, displayed and recorded within seconds, ensuring all relevant standards are met.

The Comprio control panel contains storage capacity pre-recorded audio messages which can be used for alarm texts and signals (evacuation alarm/ all clear signals) and caution signals (gongs). The volume of each source and each amplifier channel can be controlled. Additional filters such as parametric equalizer, high-and low pass filter can be programmed. For special applications such as tunnels a delay is available of to 9.9 seconds can be programmed.

The Comprio control panel can be connected to 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.

The Comprio further features 12 contact inputs, of which eight can be programmed with supervision, 8 potential-free relay outputs, one audio line out and up to 2 audio line in ports, and / or up to 3 microphone inputs, 3 DAL connections, and one TWI port.

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

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

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

Technical Data

Transmission range	20 ... 20000 Hz
Load impedance	typ. 200 Ω
Harmonic distortion at nominal level	< 0.03 %
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 60 °C
Air humidity	15 ... 90 %
Weight	approx. 6.8 kg
Dimensions	W: 483 mm H: 133 mm D: 345 mm (3 HE, 19")
Declaration of Performance	DoP-00376130701

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
581732	Battery 12 V / 65 Ah
581340	Periphery clamp for top-hat rail
583466A	Patch cable CAT5, 0.5 m gray (periphery)
583467A	Patch cable CAT5, 1 m gray (periphery)
583469A	Patch cable CAT5, 3 m gray (periphery)
583483	Patch cable CAT5, 3 m blue (DAL)
583452.21	Cable for cabinet rear panel DOM4-24
583477.21	Output cable 2 amplifier DOM
583491	Input cable DOM amplifier, 0.5 m green
583496	End-of-line module (EOL)
581310	Measuring microphone for D1 AVC in a 5" recessed ceiling housing
581316	Microphone, for AVC
583703	Mounting set 1
583332	Overvoltage protection for UIM contacts

580242



Features

- EN 54-4 and 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 back up 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 and fast step-down in 1dB steps in the event of overdrive or over load
- 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
- Temperature controlled variable speed fans

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 each with 125 W in class D direct drive technology. Due to the fact that all amplifier channels are completely independent from each other, it is possible to use one channel for back up. This could be for the other 3 channels or alternatively for other amplifier channels of other 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 also possible to use the amplifier with a separate PSU, in this case the internal battery charger must be disabled.

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Rated current	2.95 A
Power output	4 x 125W
Emergency power supply	24 V DC
Technology	Class D
Transmission range	20 ... 22000 Hz
Load impedance	> 20 kΩ (balanced)
Channel separation	> 42 dB
Harmonic distortion at nominal level	< 0.3 %
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 55 °C
Air humidity	0 ... 93 %
Color	gray, similar to RAL 7016
Weight	approx. 9 kg
Dimensions	W: 483 mm H: 44 mm D: 402 mm 1 HU, 19"
Declaration of Performance	DoP-00376130701

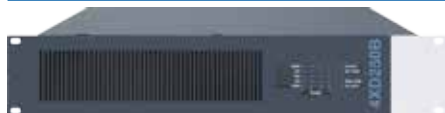


The amplifier 4XD125B is not suitable for use with VARIODYN D1 loop technology.

Accessories

583491	Input cable DOM amplifier, 0.5 m, green (two units required)
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



Features

- EN 54-4 and 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 back up channel
- Two Height Unit (2 HU)
- Ideal for use with the VARIODYN D1 Comprio
- Self-monitoring and self-test by microcontroller
- Protected against overload, short circuit and overheating
- Smooth and fast step-down in 1dB steps in the event of overdrive or over load
- 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
- Temperature controlled variable speed fans

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 direct drive technology. Due to the fact that all amplifier channels are completely independent from each other, it is possible to use one channel for back up. This could be for the other 3 channels or alternatively for other amplifier channels of other 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 also possible to use the amplifier also with a separate PSU, the internal PSU must be switched of then. In this case the internal battery charger must be disabled.

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Power output	4 x 250W
Emergency power supply	24 V DC
Technology	Class D
Transmission range	20 ... 22000 Hz
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
Air humidity	0 ... 93 %
Color	gray, similar to RAL 7016
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

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.

Technical Data

Declaration of Performance DoP-00376130701

584913

19"- housing for VARIODYN D1 Comprio



Part of EN 54-16 approval

Housing for PA/VA 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
 Declaration of Performance DoP-00376130701

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.

Technical Data

Declaration of Performance DoP-00376130701



Cables not included in price and must be ordered separately!

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

581730

Battery for emergency power supply 12 V / 105 Ah



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

Technical Data

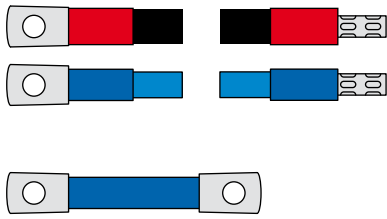
Weight approx. 32.5 kg
 Dimensions L: 502 mm W: 111 mm H: 236 mm

Features

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

583413

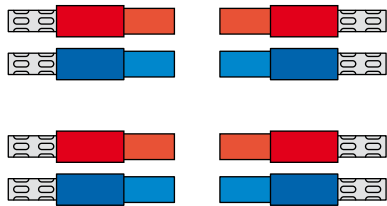
Cable set for connecting batteries to VARIODYN D1 4XDxxxB amplifier



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



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

583491A

CAT5 patch cable, 0,5 m green (DOM to amplifier)



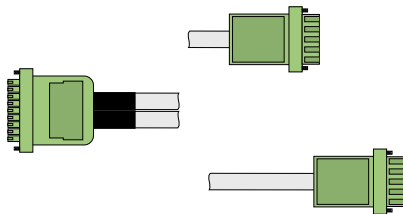
Prefabricated cable from the DOM to the 2-channel power amplifier. If a 4 channel amplifier is used, this cable is needed two times.

Technical Data

Color	green
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583477.21

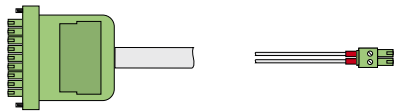
Output cable 2 amplifier DOM



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.

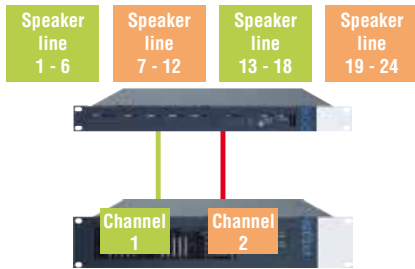
DOM Flex Solution

New, flexible way of connecting VARIODYN D1 DOM 4-24 and VARIODYN D1 amplifiers

We have developed an alternative flexible kind of connecting DOM4-24 with our amplifiers. It provides the opportunity to connect more loudspeaker lines to one amplifier channel. So it is possible to react flexibly to upgrades and building redesign.

Until now one amplifier channel could supply a maximum of 6 loudspeaker lines.

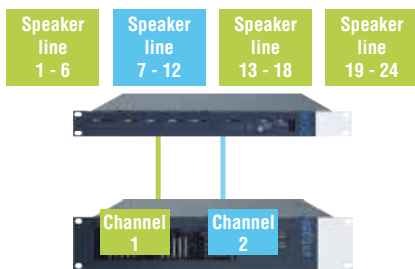
With the new method it is now possible to supply up to 24 loudspeakers lines from one channel. Please take note of the information below for configuration information..



Example 1

Channel 1: 2 DOM channels. LS lines 1-6 and 13-18. Total 12 lines
 Channel 2: 2 DOM channels. LS lines 7-12 and 19-24. Total 12 lines

- Cable, Part No.: 583491
- Cable, Part No.: 583431



Example 2

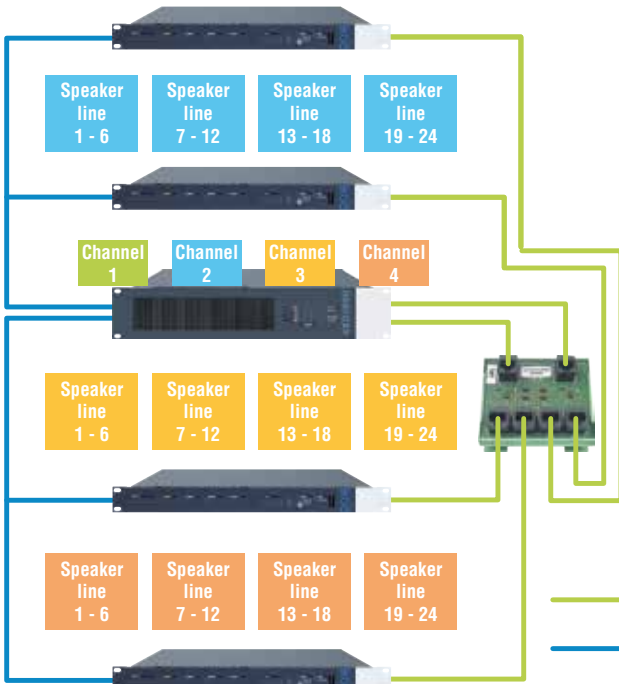
Channel 1: 3 DOM channels. LS lines 1-6, 13-18 and 19-24. Total 18 lines
 Channel 2: 1 DOM channel. LS lines 7-12. Total 6 lines

- Cable, Part No.: 583491
- Cable, Part No.: 583430



Example 3

4 DOM / 4 channel amplifier / per channel max. 24 LS lines / no backup

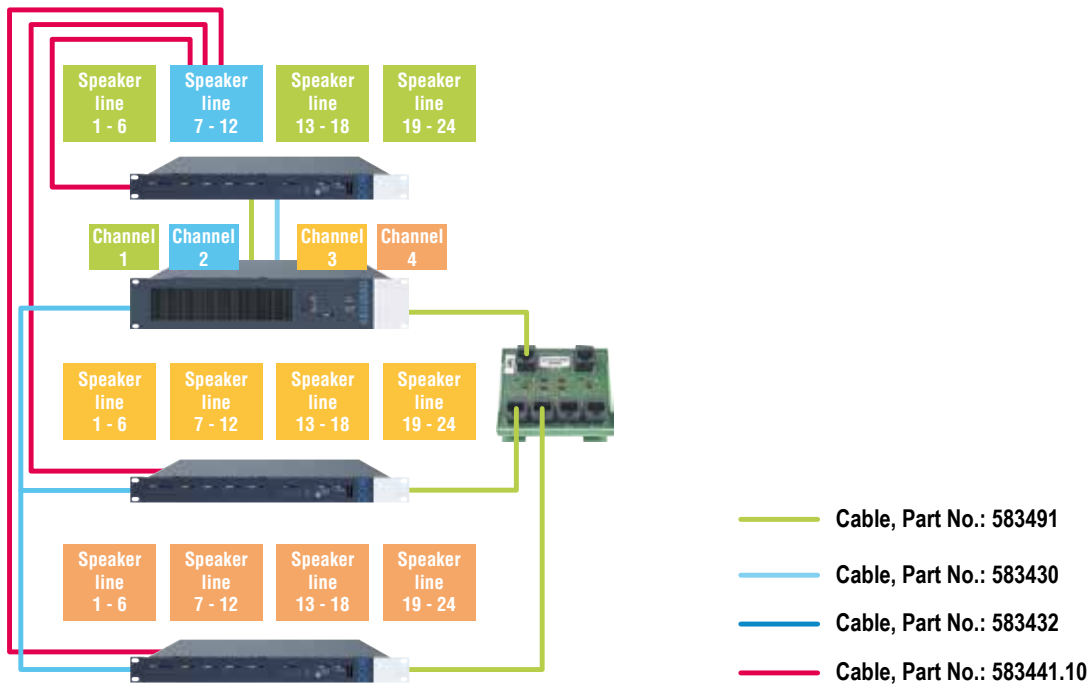


- Cable, Part No.: 583491
- Cable, Part No.: 583432

DOM Flex Solution Examples

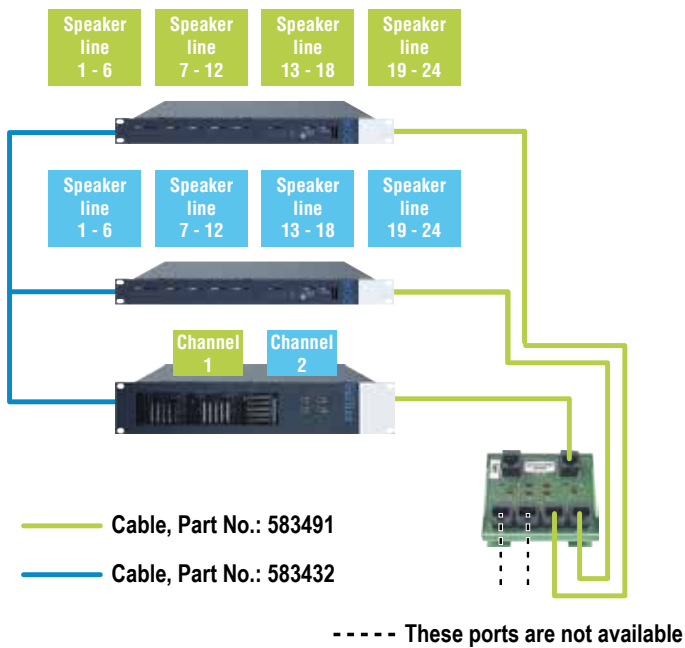
Example 4

3 DOM / 4 channel amplifier per channel max. 24 LS lines / 6 backup lines



Example 5

2 DOM / 2 channel amplifier / per channel max. 24 LS lines / no backup



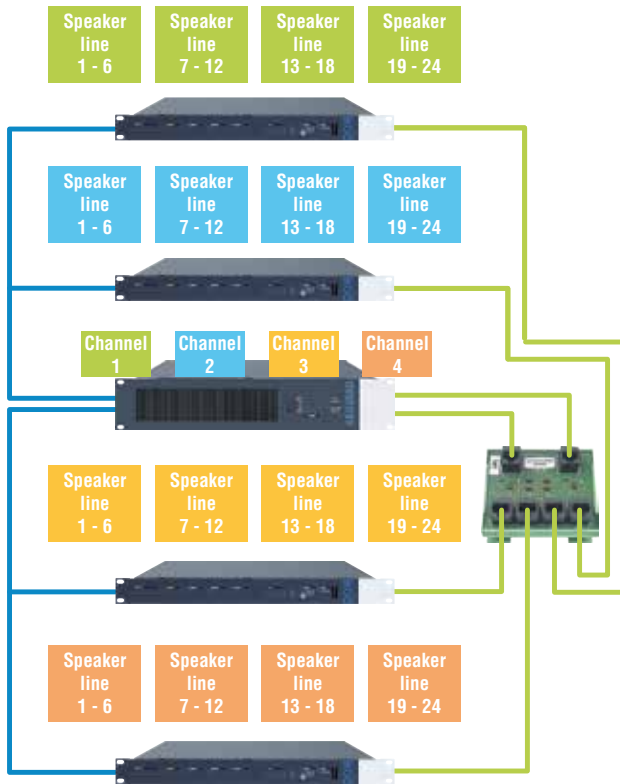
DOM Flex Solution Examples

Example 6

Two independent systems with 96 speaker lines each.

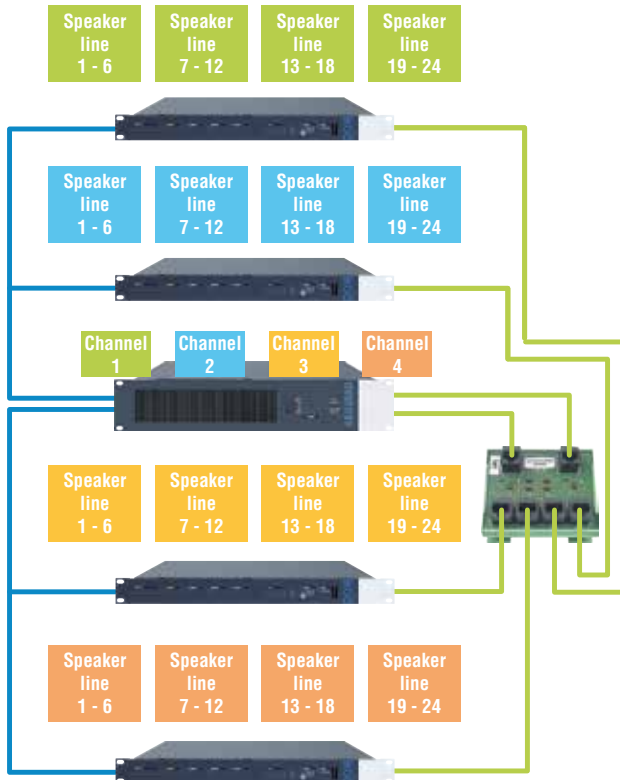
System 1 to supply the A speakers

System 2 to supply the B speakers.



— Cable, Part No.: 583491

— Cable, Part No.: 583432



583422.21

Backup cable RC 22 VARIODYN D1



Prefabricated cabling of 2 accident channels to 4 user channels

583430

NEW

Output cable DOM - Amp. 1/18

Prefabricated cabling to connect one amplifier channel up to 18 loudspeaker lines.



583431

NEW

Output cable DOM - Amp. 2/12

Prefabricated cabling to connect two amplifier channels each up to 12 loudspeaker lines.

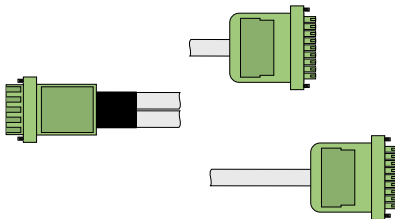


583432

NEW

Output cable amplifier 1-24

Prefabricated cabling to connect one amplifier up to 24 loudspeaker lines.



583369

NEW

Connection Board

The new Connection Board combined with the special cables sets gives the customer a broad variety of coupling DOMs and Amplifiers.



Technical Data

Air humidity 15 ... 90 %

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.

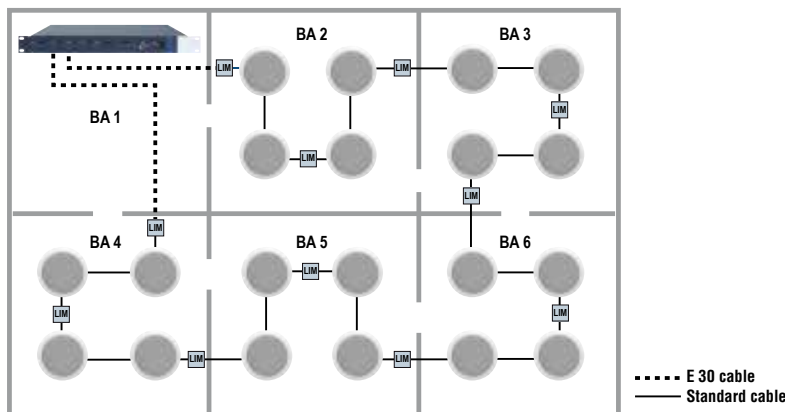
With this new type of technology, a wire-break and short-circuit-resistant loop is constructed, similar to the case of fire detection technology.

One of the first systems on the market

VARIODYN D1 is one of the first voice alarm systems on the market with 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 to 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 Module LIM




Approval: EN 54-17

Features

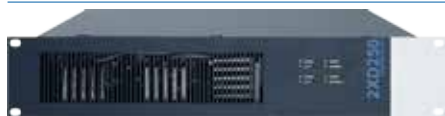
- Much higher safety compared to spur cabling
- Fully redundant 100 V loop wiring system technology
- Extensive topologies are possible
- Short-circuit and wire break tolerant
- EN 54-17 certified
- Large saving in wiring and installation

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 mm² 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.

Power amplifier	Max. LIM number	Max. loop length incl. spurs
2XD250	40	1000
2XD400	64	1000
4XD250B	25	500
4XD300	40	1000
4XD500	50	1000

 Please consider that the 4XD125B is not compatible with the loop technology!

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

Part of EN 54-16 approval

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.

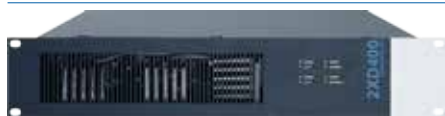
Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Rated current	2.8 A
Power output	2 x 250 W (sin, @ 40 W)
Emergency power supply	24 V DC
Technology	Class 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	0 ... 93 %
Color	gray, similar to RAL 7016
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

Part of EN 54-16 approval

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 W)
Emergency power supply	24 V DC
Technology	Class 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 %
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



Features

- EN 54-4 and 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 back up channel
- One height unit
- Ideal for use with the VARIODYN D1 Compro
- Self-monitoring and self-test by microcontroller
- Protected against overload, short circuit and overheating
- Smooth and fast step-down in 1dB steps in the event of overdrive or over load
- 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 Compro or DOM
- Temperature controlled variable speed fans

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 Compro. 4XD125B has 4 independent amplifier channels each with 125 W in class D direct drive technology. Due to the fact that all amplifier channels are completely independent from each other, it is possible to use one channel for back up. This could be for the other 3 channels or alternatively for other amplifier channels of other amplifiers with the same or lower output power (only 4XDxxxB models). The amplifier may be used with the VARIODYN D1 Compro, as well as a DOM. It is also possible to use the amplifier with a separate PSU, in this case the internal battery charger must be disabled.

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Rated current	2.95 A
Power output	4 x 125W
Emergency power supply	24 V DC
Technology	Class D
Transmission range	20 ... 22000 Hz
Load impedance	> 20 kΩ (balanced)
Channel separation	> 42 dB
Harmonic distortion at nominal level	< 0.3 %
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 55 °C
Air humidity	0 ... 93 %
Color	gray, similar to RAL 7016
Weight	approx. 9 kg
Dimensions	W: 483 mm H: 44 mm D: 402 mm 1 HU, 19"
Declaration of Performance	DoP-00376130701

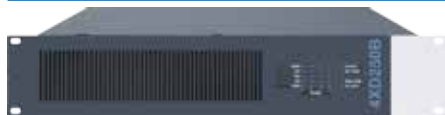


The amplifier 4XD125B is not suitable for use with VARIODYN D1 loop technology.

Accessories

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

580243



Features

- EN 54-4 and 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 back up channel
- Two Height Unit (2 HU)
- Ideal for use with the VARIODYN D1 Compro
- Self-monitoring and self-test by microcontroller
- Protected against overload, short circuit and overheating
- Smooth and fast step-down in 1dB steps in the event of overdrive or over load
- 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 Compro or DOM
- Temperature controlled variable speed fans

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 Compro. The 4XD250B features 4 independent amplifier channels, each with 250 W, in class D direct drive technology. Due to the fact that all amplifier channels are completely independent from each other, it is possible to use one channel for back up. This could be for the other 3 channels or alternatively for other amplifier channels of other amplifiers with the same or lower output power (only 4XDxxxB and 4XDxxxW models). The amplifier can be used in combination with the VARIODYN D1 Compro as well as with a DOM. It is also possible to use the amplifier also with a separate PSU, the internal PSU must be switched of then. In this case the internal battery charger must be disabled.

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Power output	4 x 250W
Emergency power supply	24 V DC
Technology	Class D
Transmission range	20 ... 22000 Hz
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
Air humidity	0 ... 93 %
Color	gray, similar to RAL 7016
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 Compro / 4XD
583413	Cable set for connecting the batteries to the 4XDxxxB amplifiers

580248.11



Features

- Built-in electronic protective circuit against thermal overload, DC signals, sub frequent signals, short circuit, open outputs and HF interference
- Individual status LEDs indicate channel 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
- Suitable for use with loop technology

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 %
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 units required)
583477.21	Output cable 2 amplifier -DOM

580249.11



Features

- Built-in electronic protective circuit against thermal overload, DC signals, sub frequent signals, short circuit, open outputs and HF interference
- Individual status LEDs indicate channel 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
- Suitable for use with loop technology

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 units required)
583477.21	Output cable 2 amplifier DOM

580261



Features

- Power amplifier 4-channel, 100 V outputs
- Efficiency higher than 80 %
- Control and monitoring by DOM
- Integrated electronic protection against thermal overload and short-circuit on the output

Four-channel amplifier 4XV300

Power amplifier for the voice alarm system VARIODYN D1 in class D technology with four independent power channels and galvanic isolated 100 V direct outputs, symmetric inputs, inrush current limitation and soft start.

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	4x 300 W
Technology	Class D
Transmission range	20 ... 20000 Hz
Load impedance	> 20 kΩ (symmetrically)
Harmonic distortion at nominal level	< 0.03 % @ 1 kHz
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 55 °C
Air humidity	0 ... 93 %
Color	gray, similar to RAL 7016
Weight	approx. 12 kg

Accessories

583444	Backup cable RC 44
583491	Input cable DOM amplifier (2 x required)
583477.21	Output cable 4XV amplifier DOM 583477.21

580262

Four-channel amplifier 4XV500



Power amplifier for the voice alarm system VARIODYN D1 in class D technology with four independent power channels and galvanic isolated 100 V direct outputs, symmetric inputs, inrush current limitation and soft start.

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

Features

- Power amplifier 4-channel, 100 V outputs
- Efficiency higher than 80 %
- Control and monitoring by DOM
- Integrated electronic protection against thermal overload and short-circuit on the output

Technical Data

Rated voltage	230 V AC
Rated frequency	50 ... 60 Hz (+10 % / -5 %)
Power output	4x 500 W
Technology	Class D
Transmission range	20 ... 20000 Hz
Load impedance	> 20 kΩ (symmetrically)
Harmonic distortion at nominal level	< 0.03 % @ 1 kHz
Ambient temperature	-5 °C ... 55 °C
Storage temperature	-10 °C ... 55 °C
Air humidity	0 ... 93 %
Color	gray, similar to RAL 7016
Weight	approx. 14 kg

Accessories

583444	Backup cable RC 44
583491	Input cable DOM amplifier (2 x required)
583477.21	Output cable 4XV amplifier DOM 583477.21

Redundant Call Station

583520

NEW



Features

- High failure safety due to redundant transmission route
- Cost-effective CAT5 cabling
- Electret gooseneck microphone with cardioid pattern
- Exchangeable gooseneck microphone with protection by using a specific tool to lock/unlock
- Permanent monitoring of the microphone and cable
- Mechanical protection against cable disconnection
- Build-in loudspeaker for monitoring and for intercom operation between other paging stations
- Independent additional audio input/output e.g. for audio player
- 12 freely configurable keys with independent programmable LEDs

Digital Call Station DCS plus

Part of the EN 54-16 approval

The digital call station DCS plus allow the selection of loudspeaker circuits, the transmission of voice announcements as well as various gongs and alarms. The digital call station is connectable via a standard CAT5 cable to the VARIODYN D1 control devices DOM and Comprio. All control signals, up to four simultaneous audio signals and the power supply are transmitted. This connection can be done by single or redundant cabling up to 300 m away. It can be increased to 20 Kilometers by using fiber-optic cabling.

The digital call station DCS plus can be expanded with up to six digital keyboard modules DKM plus, whereby the total number of available keys and LEDs increases to 120 per communication station.

The function of the microphone and the cable connection is permanently monitored. The DCS plus provides an additional external audio input and output, which can be used to connect audio devices such as CD players. A 3 m long CAT5 cable to connect the digital call station to a wall jack is included.

Technical Data

Nominal level	0 dBu
Transmission range	60 ... 22000 Hz
Nominal level	0 dBu
Microphone	Electret, uni-directional
Swan-neck	400 mm
Loudspeaker	2W
Sample rate	48 kHz
AD/DA converter	24 Bit
Current consumption	< 70 mA
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 95 %
Color	Black, similar to RAL 9005
Weight	approx. 1.42 kg
Dimensions	W: 200 mm H: 49.4 mm D: 200 mm

The Digital Call Station DCS plus may be embedded in the surface of a table.

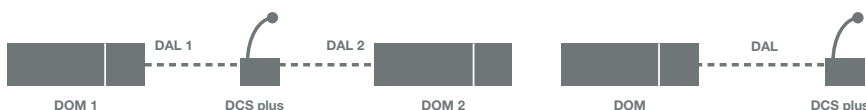
A 3 m long CAT5 cable to connect the digital call station to a wall jack is included in delivery.

Accessories

583526 Digital Key Module DKM plus

Redundant Connection to Two DOMs*

Single Connection



583526

NEW



Features

- Daisy chain cabling from DCS plus to one or more DKM plus
- Mechanical connection to DCS plus and further DKM plus

Digital Key Module DKM plus

Part of the EN 54-16 approval

The Digital Key Module DKM plus offer 18 freely configurable keys and 18 LEDs. Up to six Digital Key Module DKM plus can be connected to a Digital Call Station DCS plus. This allows communication stations with up to 120 keys and 120 LEDs.

Technical Data

Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 95 %
Color	Black, similar to RAL 9005
Weight	approx. 1.22 kg
Dimensions	W: 200 mm H: 49.4 mm D: 200 mm

The Digital Key Module DKM plus may be embedded in the surface of a table.

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 PAVA 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 potentially or actually in high danger. Our paging station supports redundant cable connections to two separate Comprio with Ethernet (not standalone version of Comprio) or DOM. This means it is possible to connect two (CAT5) cables to one paging station providing redundant operation. 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's 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 also 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. Extension to a greater distance is possible with fiber optic (FO) cables - see respective FO converters which are needed additionally. A redundant connection with FO cables can be achieved. 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

Audio output:	
Nominal level	0 dBu
Transmission range	20 ... 22000 Hz
Audioinput:	
Nominal level	0 dBu
Common technical data:	
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 %
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 call station may be embedded in the surface of a table, for which a table mounting kit 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. Each cap will protect three horizontal keys.

 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 |
| 583507 | Installation kit for redundant DCS |
| 583318 | Substitute key caps (PU 12 pieces) |

Redundant Connection to Two DOMs*



Single Connection



583502.RE

Digital Call Station DCS2 redundant



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 %
Color	gray, similar to RAL 7037
Weight	approx. 1.6 kg
Dimensions	W: 123 mm H: 71 mm D: 180 mm
Declaration of Performance	DoP-20997130701

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



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. Please note this unit is not suitable for use with the older 58330X.21 call stations. If you need to replace or add a DKM to a 58330x.21 station please contact sales support.

Technical Data

Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 %
Color	gray, similar to RAL 7037
Weight	approx. 1.6 kg
Dimensions	W: 123 mm H: 71 mm D: 180 mm
Declaration of Performance	DoP-20997130701

Accessories

583507 Installation kit for redundant DCS

583529

Keyboard cover for DCS plus und DKM plus

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

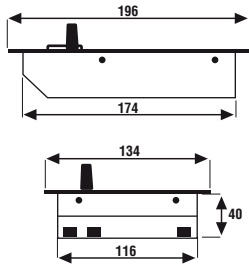


This product will be available with Q3/2018.

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
- 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 PAVA 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 also supports redundant cable connection to two separate Comprio (not standalone Version of Comprio) or DOM's which means it's possible to connect two cables (CAT5) to one paging station. 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 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. 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 %
Color	gray, similar to RAL 7037
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 press, a transparent key cap is available. Pressing of keys is only possible with open caps. Each cap will protect three horizontal keys.

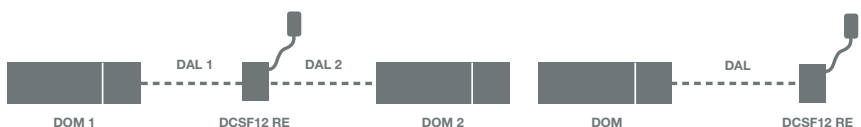
 A 3 m long CAT5 cable for connecting the digital communication unit to a wall jack, is included in delivery.

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
- 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 one 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
- Hand-held microphone with built-in loud speaker and acoustic microphone monitoring
- Permanent monitoring of the line to the next interface module
- 24-bit AD/DA converter

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 %
Color	gray, similar to RAL 7037
Weight	approx. 1.6 kg
Dimensions	W: 134 mm H: 196 mm D: 40 mm
Declaration of Performance	DoP-20997130701

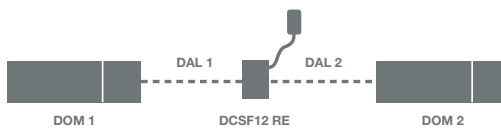


A 3 m long CAT5 cable for connecting the digital communication unit to a wall jack, is included in delivery.

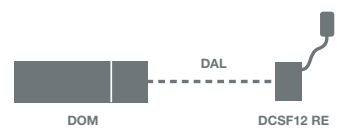
Accessories

583709	Dummy plate
584961	Enclosure for one FB call station DCSF
584962	Enclosure for two FB call station 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

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 language, but can easily be replaced in local language

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 as per the 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 %
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
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 manufactured 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. Additionally you should to order an installation kit (Part No. 583507 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

584962

Enclosure for one firefighter paging microphone and one DKM




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. Additionally you should order an installation kit (Part No. 583507) 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

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

 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



Part of EN 54-16 approval

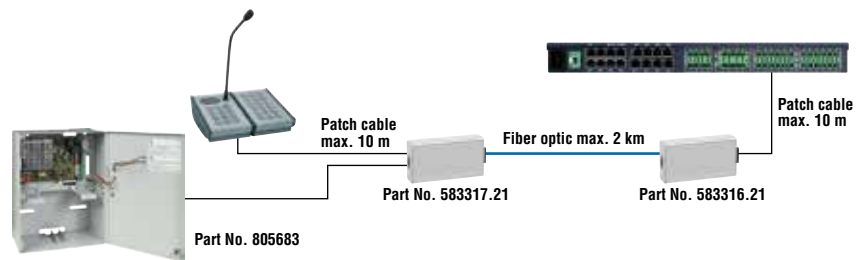
Module required for connection of digital communication units DCS or universal interface module UIM to VARIODYN D1 via multimode optical fiber. If the system is in use for VA purposes, it is necessary to provide power either from 24 V DC source or from a battery (Part No. 805683).

Technical Data

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

Accessories

- 583315.02 Power supply for LWL converter
- 805683 External power supply DCU 2403



583316.SM

LWL converter single mode



Part of EN 54-16 approval

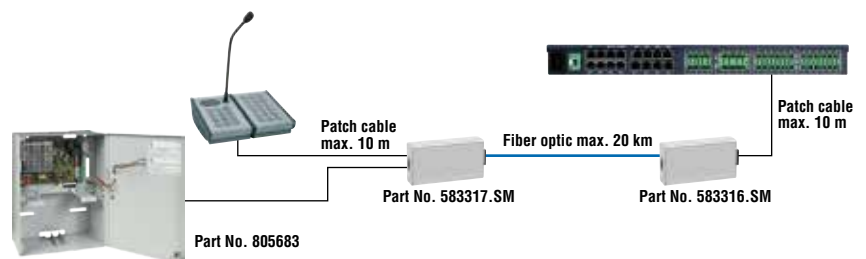
Module required for connection of digital communication units DCS or universal interface module UIM to VARIODYN D1 via multimode optical fiber. If the system is in use for VA purposes, it is necessary to provide power either from 24 V DC source or from a battery (Part No. 805683).

Technical Data

Range	< 20 km
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Accessories

- 583315.02 Power supply for LWL converter
- 805683 External power supply DCU 2403



583317.21

LWL converter for DCS multi mode



Part of EN 54-16 approval

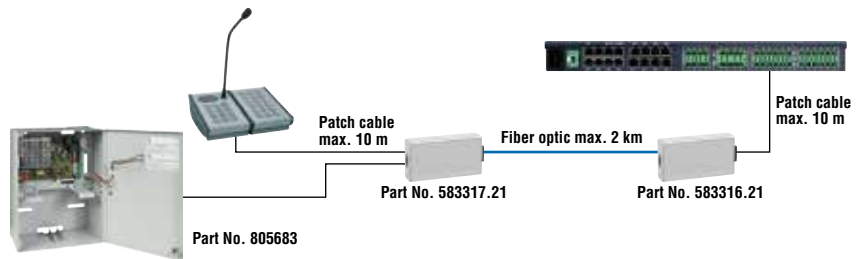
Module required for connection of digital communication units DCS or universal interface module UIM to VARIODYN D1 via multimode optical fiber. If the system is in use for VA purposes, it is necessary to provide power either from 24V DC source or from a battery (Part No. 805683).

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

Accessories

- 583315.02 PSU for FO converter
- 805683 External PSU DCU 2403



583317.SM

LWL converter for DCS single mode



Part of the EN 54-16 certification

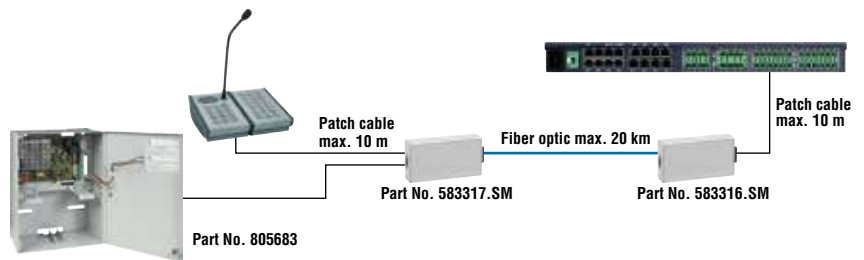
Module required for connection of digital communication units DCS or universal interface module UIM to VARIODYN D1 via multimode optical fiber. If the system is in use for VA purposes, it is necessary to provide power either from 24V DC source or from a battery (Part No. 805683).

Technical Data

Range	< 20 km
-------	---------

Accessories

- 583315.02 PSU for FO converter
- 805683 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.

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 call 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

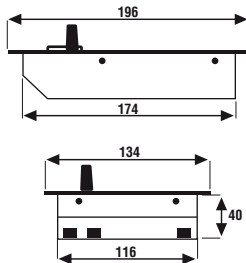


Can be used for RE versions!

Accessories

583709

Blind cover 4 HU



583318

Key cap



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



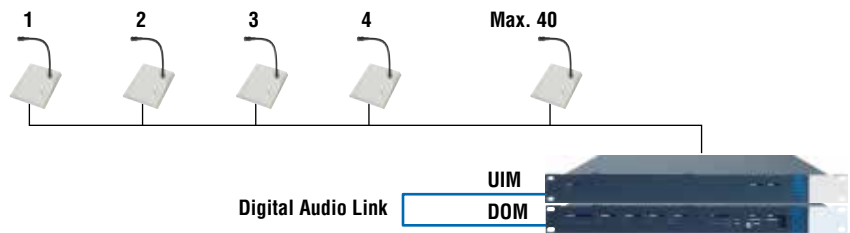
12 pieces

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

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 %
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).

583560

PC Touch Screen Call Station

NEW



An elegant touch screen solution, designed for use in front of house environments or complex buildings. Combined with the PAMMI plus software the user has an intuitive tool for creating announcements with graphical display of the site and zones. The sleek yet durable call station delivers a

15-inch touchscreen, Intel Celeron dual-core processor, 2 GB RAM and 320 GB storage.

Designed to fit on top of an office desk, reception desk, information desk or gate desk.

With no moving parts to wear out, touch response is fast, accurate, and drift free using a finger or soft stylus. Pure glass construction allows high light transmission, ensuring good visibility in bright light environments, without compromising durability or functionality.


Features

- Zero-bezel model provides a seamless, edge-to-edge design for a sleek appearance that is easy to clean and provides maximum display space
- Pure glass touchscreen for optimal picture quality is factory sealed to resist spills, dust and grease
- Durable to withstand the rigors of use in a public environment
- Dynamic gooseneck microphone with on/off switch
- Sennheiser CL2- line cable between Call Station and Microphone

The first class gooseneck microphone with cardioid characteristics is perfect for noisy environments. With the high grade cable it is possible to place the microphone remotely from the call station hardware, allowing for the user to create a comfortable working environment.

Technical Data

Ambient temperature	0 °C ... 35 °C
Air humidity	20 ... 80 %
Weight	approx. 7.3 kg

 Intel Celeron Processor, Intel HD Graphics, 2 GB RAM, Windows POS Ready OS, 1 x line out, 2 x line in, 1 x Gigabit LAN

Accessories

583654	PAMMI Plus small installations
583561	PC with touch screen
583565	Dynamic swanneck microphone

583565

Dynamic Microphone with Gooseneck

NEW



Suitable for control desks, table- or wallmounting. Microphone capsule protected against structure-born sound.

Technical Data

Ambient temperature	-30 °C ... 60 °C
Air humidity	< 93 %
Housing	Metal / Plastic
Weight	approx. 400 g
Dimensions	W: 150 mm H: 300 mm D: 150 mm

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

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:

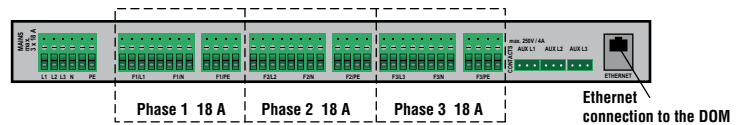
Ambient temperature	-5 °C ... 55 °C
Air humidity	15 ... 90 %
Weight	approx. 4.2 kg
Dimensions	W: 483 mm H: 44 mm D: 345 mm (1 HU, 19")
Declaration of Performance	DoP-20997130701

 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



Ethernet programming port

230 V-primary low receptacle, for example, service PC power supply

MSU rear view and front view

584970



Features

- Compliant to IEC/EN 60 255, DIN VDE 0435-303
- Single phase connection possible
- Fixed setting value
- Closed circuit operation principle
- LED indicator
- With safe disconnection compliant to IEC/EN 61 140, IEC/EN 60 947-1 between the Measuring Circuit and the contacts
- Independent of phase sequence
- 2 changeover contacts

Under Voltage and neutral supervision module

The neutral conductor monitoring module (Part No. 584970) should be used to protect against a break in the neutral conductor occurring. This module is connected upstream with the MSU contactor (Part No. 584971) and enables the safe and immediate all-pole interruption of the power supply in the event of:

- undervoltage
- phase failure
- asymmetry, including for reverse voltage
- neutral conductor missing in the system
- neutral conductor break in the device supply cable
- neutral conductor mixed up with phase.



Please read the VARIODYN D1 Installation Instruction 798663 to get more information how to use!



Delivery time on request.

Accessories

584971

Contactor 3x25 A

584971



Contactor 3x25 A

In combination with the neutral conductor monitoring module (Part No. 584970) this contactor enables the safe and immediate all-pole interruption of the power supply in the event of:

- undervoltage
- phase failure
- asymmetry, including for reverse voltage
- neutral conductor missing in the system
- neutral conductor break in the device supply cable
- neutral conductor mixed up with phase



Please read the VARIODYN D1 Installation Instruction 798663 to get more information how to use!



Delivery time on request.

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

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 outputs. 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:

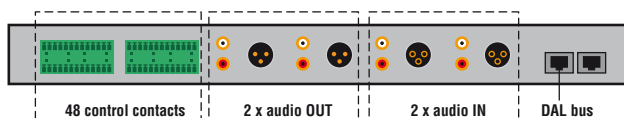
Nominal level	0 dBu
Transmission range	20 ... 22000 Hz
Harmonic distortion at nominal level	< 0.05 %
Load impedance	100 kΩ / 1 kΩ (XLR / Cinch, potentialfrei)

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 %
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 cable 12 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

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



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	approx. 10 mA
Declaration of Performance	DoP-20997130701

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

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

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 % (non condensing)
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



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 ± 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 Ω, 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)

Power Supply

Emergency power supply

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 required to operate the 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



Features

- Emergency power supply in the 1 HU enclosure
- Outputs for control devices such as DOM or Comprionet
- 8 individually fused high power outputs for output amplifiers, each with 30A max.
- Authorisation 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.

Accessories

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

581723



Features

- Emergency power supply in the 2 HU enclosure
- Outputs for control devices such as DOM or Comprionet
- 1 individually fused high power outputs for output amplifiers (12 outputs in total but one output cannot be used)
- Authorisation 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

 Up to 2 x 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

581724



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 features of Part No. 581722 an Ethernet interface for reading service information 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.

Attention: The delivery will stop end of June 2018!

Accessories

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

581725



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 features of Part No. 581722 an Ethernet interface for reading service information 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



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



Delivery time on request.

Attention: The delivery will stop end of June 2018!

Accessories

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

581721



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

Emergency power supply 24 V / 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 %
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.



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

581730

Battery for emergency power supply 12 V / 105 Ah



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

Features

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

581731

Battery for emergency power supply 12 V/150 Ah



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

Features

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

581732

Battery 12 V / 65 Ah



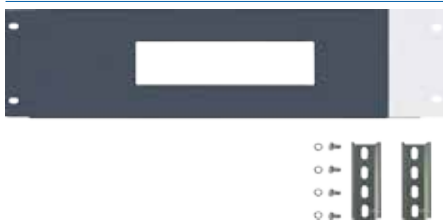
Emergency battery for usage in emergency power supply of Voice Alarm applications. Required per 2 pieces.

Technical Data


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

583716

19" mounting set with cutout for fuse holder and circuit breaker



Due to the use of big batteries up to 150 Ah capacity in combination with our PSUs it could be in case of a short circuit up to 600 A current flow. The equivalent of this more than 15 KW power @ the short circuit. For this reason, we propose to have a fuse to prevent damage. In order to build in the fuse with holder in a proper way we developed and offer this installation kit.

 Delivery time on request

Accessories

584150	Fuse holder and circuit breaker
584151	100 A Fuse for PSU 24 V – 2/4

583535

Alarm transponder VARIODYN D1



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

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 available as an option:

-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 fire alarm systems 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
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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 connected 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.

HN-32N

Noise Detector

Features

- Collect ambient noise from built-in microphone
- Elegant appearance
- Easy field installation with spring loaded clips
- 2-core shielded cable
- Transmission distance □ 200 meters

HN-D32N Noise Detector is designed to collect ambient noise samples and transmit them to the control system. The system can then automatically adjust the volume to deliver intelligible sound. It is intended for use in areas such as metro station, airport, shopping mall, where noise level varies constantly and sound clarity is of utmost importance.

Technical Data

Transmission range	60 ... 18000 Hz
Sensitivity	2.4 mV
Sound level	max. 152 dB
Impedance	2000 Ω
Color	white, similar to RAL 9010
Dimensions	Ø: 200 x 118 mm

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
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Accessories

581329	Surface mount
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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



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

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

583386.21

Adapter TWI-RS232



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. The VARIODYN D1 system can be controlled by the fire alarm control panel via this connection. Faults in the VARIODYN D1 system are reported to the fire alarm control panel and can also be reset via the external operating panels. The connection between the two systems is constantly monitored for short-circuit and interruption. The system time and the date of both systems are synchronized automatically (received from FAS -> DOM or DOM -> FAS - depending on selection).

Technical Data

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

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 only for Germany. For all other regions please use 583387.21.

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.

583394.11

Fibre Optic Switch for Ethernet ring



Features

- 6-port 10/100/1000Tx Gigabit Ethernet
- 2-port 100/1000 SFP Slot
- Configuration: Web GUI, Serial Console, CLI Command
- Network Redundancy support: G.8032 ERPS,RSTP, MSTP
- Supports IGMP v1/v2, up to 256 groups
- Supports IEEE802.1p QoS and CoS/ToS
- Supports IEEE802.1Q VLAN, SNMP v1/v2c/v3
- System Warning setting for automatic warning through e-mail
- Redundant Power Input Design, 12 - 48 V
- Rugged Metal Case Design
- DIN-Rail Mounting, Wall Mounting (optional)

Part of EN 54-16 approval

The Fiber Optic 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 a fiber rupture, it is possible to still communicate through the other side of the loop. In addition, every Fiber Optic 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	15 W
Ambient temperature	-5 °C ... 45 °C
Storage temperature	-40 °C ... 85 °C
Air humidity	15 ... 95 %
Type of protection	IP 30
Housing	Metal
Weight	approx. 870 g
Dimensions	W: 46 mm H: 142 mm D: 99 mm



The Fiber Optic switch can be equipped with one (for point-to-point connection) or two (for redundant loop connection) fiber optic module(s):
 583392.11 Fiber Optic module for FO Switch monomode for up to 2 km distances
 583393.11 Fiber Optic module for FO Switch single mode for up to 20 km distances

583392.11

Fiber Optic module for FO Switch, multimode



Features

- RoHS compliant
- Compliant with Fast Ethernet standard
- Compatible with SONET/SDH application
- Industry standard small form pluggable (SFP) package
- Duplex LV connector
- Differential LVPECL inputs and outputs
- Single power supply 3.3V
- TTL signal detect indicator
- Hot Pluggable
- Class 1 laser product complies with EN 60825-1

Part of EN 54-16 approval

Pluggable Fiber Optic module for the fiber optic switch 583394.11 in 1310 nm multimode. This provide a Fiber Optic cable length up to 2 km.

Technical Data

Transmission distance	max. 2 km
Fiber	Multimode 50/125 µm, 62,5/125 µm
Ambient temperature	-5 °C ... 45 °C
Air humidity	15 ... 95 %
Housing	Metal
Weight	approx. 100 g

583393.11

Fiber Optic module for FO Switch, single mode



Features

- RoHS compliant
- Compliant with Fast Ethernet standard
- Compatible with SONET/SDH application
- Industry standard small form pluggable (SFP) package
- Duplex LV connector
- Differential LVPECL inputs and outputs
- Single power supply 3.3V
- TTL signal detect indicator
- Hot Pluggable
- Class 1 laser product complies with EN 60825-1

Part of EN 54-16 approval

Pluggable Fiber Optic module for the fiber optic switch 583394.11 in 1310 nm single mode. This provide a Fiber Optic cable length up to 20 km.

Technical Data

Transmission distance	max. 20 km
Fiber	Singlemode 9/125 µm, 10/125 µm
Ambient temperature	-5 °C ... 45 °C
Air humidity	15 ... 95 %
Housing	Metal
Weight	approx. 100 g

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.

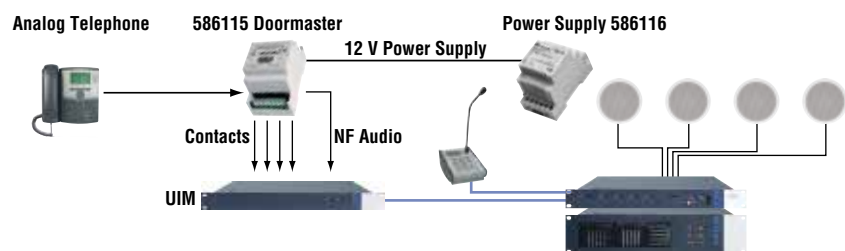
Technical Data

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

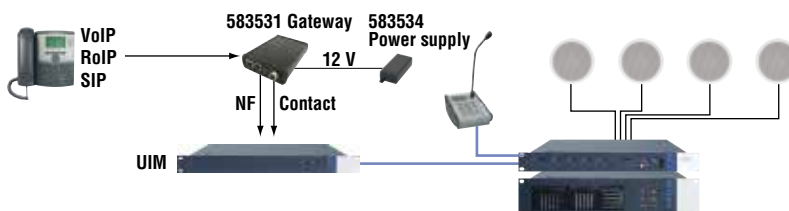
Features

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

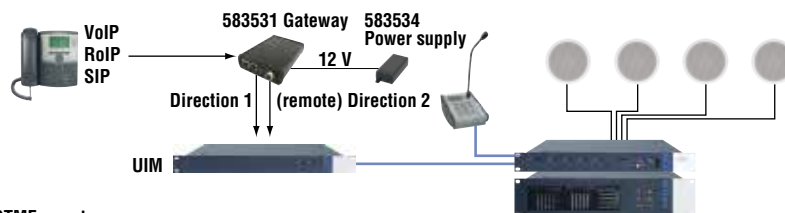
Accessories

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 such as DOM, UIM, CIM, Comprio	584101	
Ethernet	584102	
DAL bus	584102	CAT5 line length up to 250 m



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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

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. Transmission via Token-Passing protocol, similar to DIN 19245-1 (Profibus) loop technology, 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)

i The essernet micromodule and the interface module either RS 232 (Part No. 772386) or TTY (Part No. 772387) are not included and must be ordered separately in accordance with the required essernet type and the serial transmission standard. The optional interface module must be ordered separately and is a supplement to the serial essernet interface. It is plugged into the connectors provided on the main PCB. Depending on the required application, a TTY /CL 20 mA (Part No. 772387) or a RS232 / V.24 (Part No. 772386) interface module may be installed on the serial essernet interface. When using virtual control groups (PA/VA), a hardware output shall be provided on the FACP side per virtual control group, e.g. through the output of an esserbus coupler. To avoid any kind of problem, please contact the International Sales Support for advice before quoting or installing the serial essernet interface!

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

Approval: G 210052

External power supply in a compact metal housing for up to two 12 V / 24 Ah batteries. This power supply facilitates an uninterruptable supply of power. Integration into the esserbus/esserbus-Plus optional via optional adapter card (Part No. 805684.10) and esserbus Transponder (Part No. 808623). Four floating relay outputs are available for the transmission of disturbances (power failure, ground fault, battery failure and collective fault). External LED display for operation and collective fault on the lockable front door, internal LEDs for detailed recognition of emergency power operation, individual monitoring of battery failure and ground fault.



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 mm²
- short-circuit proof

Approval: VdS

The converter provides a galvanically isolated 12 V power supply for a detector for special applications. The input voltage is 12 V, and it is supplied from the fire alarm control panel or from an external PSU. The module can be integrated into the 120240, 788600, 788601, 788603, 788650.10, or 788651.10 enclosures.

When planning the project, please pay attention to primary (12 V) current drain in case of a mains failure.



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

583386.21

Adapter TWI-RS232**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. The VARIODYN D1 system can be controlled by the fire alarm control panel via this connection. Faults in the VARIODYN D1 system are reported to the fire alarm control panel and can also be reset via the external operating panels. The connection between the two systems is constantly monitored for short-circuit and interruption. The system time and the date of both systems are synchronized automatically (received from FAS -> DOM or DOM -> FAS - depending on selection).

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Features

- 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.

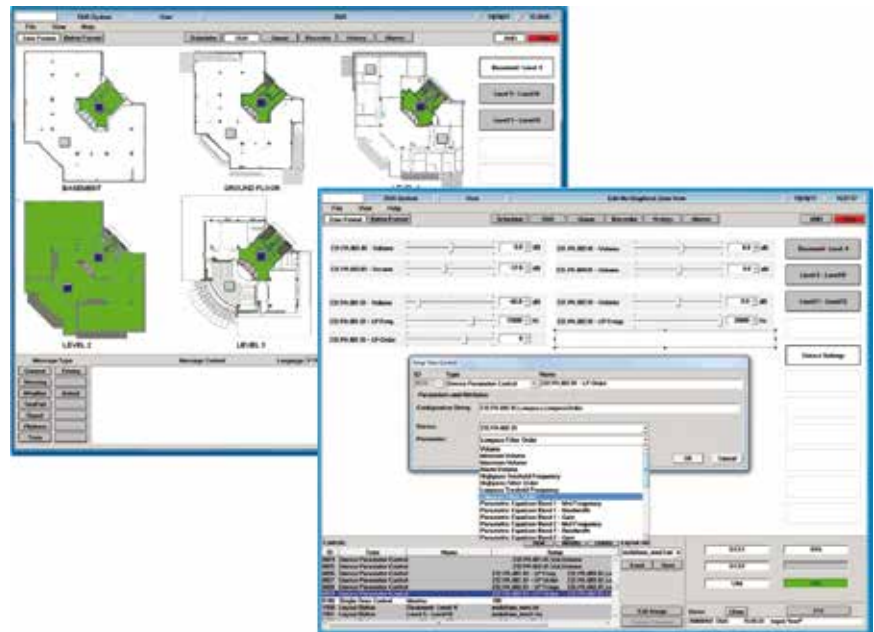
The graphical user interface can be customized for a particular property, thus being very useful. Whether the customer requires list displays, building plans, or other graphical representations, with PAMMI Plus everything is straightforward and quickly possible.

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

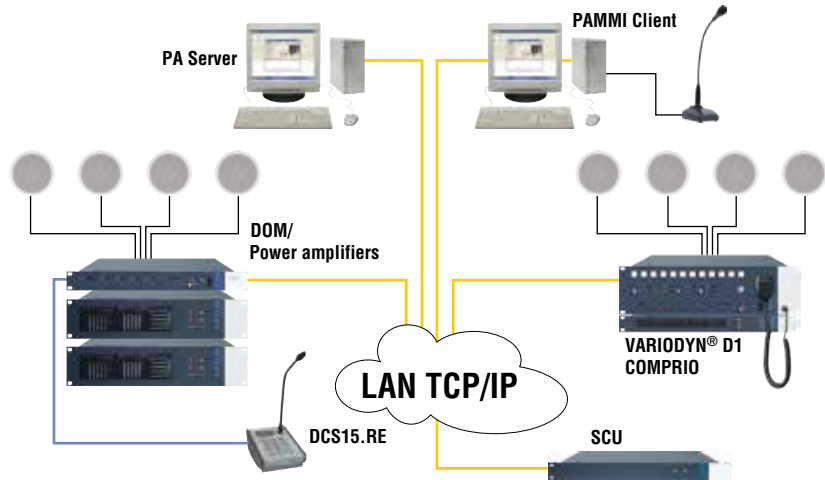
PAMMI Plus PA server



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 realises system control and communication with the components of the VARIODYN D1 voice alarm system and the 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 backward 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

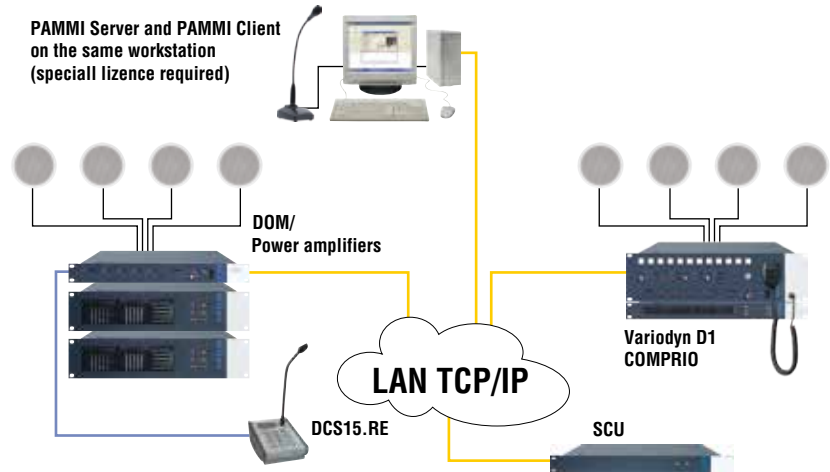
PAMMI Plus server/client



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.

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



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

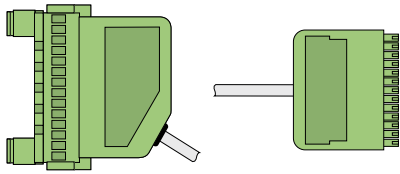
Extron media control module



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



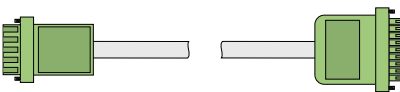
Prefabricated cabling of 2 accident channels to 4 user channels

583430

NEW

Output cable DOM - Amp. 1/18

Prefabricated cabling to connect one amplifier channel up to 18 loudspeaker lines.

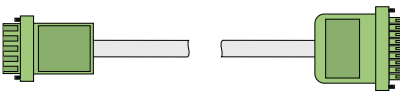


583431

NEW

Output cable DOM - Amp. 2/12

Prefabricated cabling to connect two amplifier channels each up to 12 loudspeaker lines.

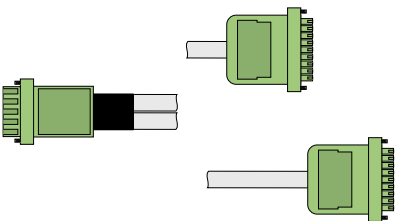


583432

NEW

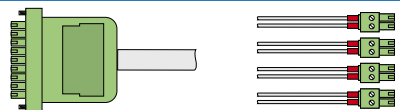
Output cable amplifier 1-24

Prefabricated cabling to connect one amplifier up to 24 loudspeaker lines.



583444

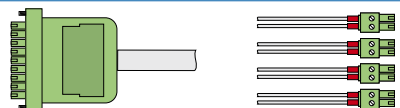
Backup cable RC 44 VARIODYN D1, 2 m



Prefabricated cabling of 4 auxiliary channels on 4 bearer channels.

583444.10

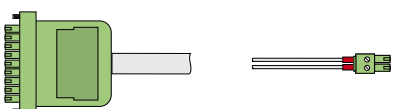
Backup cable RC 44 VARIODYN D1, 0.5 m



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

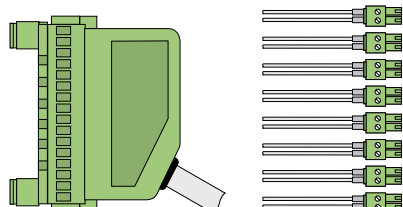
Backup cable RC 41 VARIODYN D1, 0.5 m



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 Compro applications.

583451.21

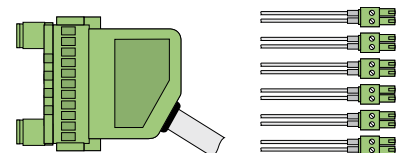
Cable for cabinet rear panel DOM4-8



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

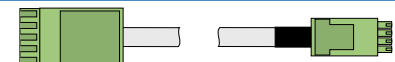
Cable for cabinet rear panel DOM4-24



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

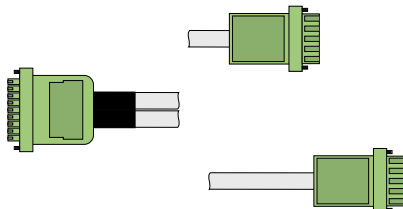
Output cable amplifier DOM



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

583477.21

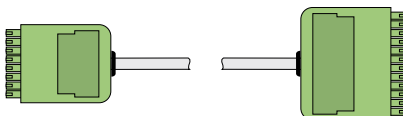
Output cable 2 amplifier DOM



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

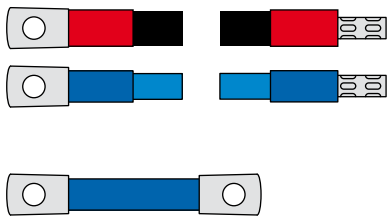
Input cable DOM (G1) – amplifier (as of G2)



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.

583481A

CAT5 patch cable, 1 m blue (DAL)



583482A

CAT5 patch cable, 2 m blue (DAL)



583483A

CAT5 patch cable, 3 m blue (DAL)



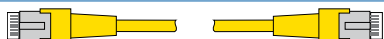
583486A

CAT5 patch cable, 1 m yellow (Ethernet)



583487A

CAT5 patch cable, 2 m yellow (Ethernet)



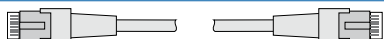
583488A

CAT5 patch cable, 3 m yellow (Ethernet)



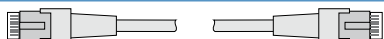
583466A

CAT5 patch cable, 0.5 m gray (Periphery)



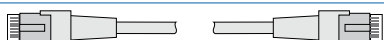
583467A

CAT5 patch cable, 1 m gray (Periphery)



583469A

CAT5 patch cable, 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.

583491A

CAT5 patch cable, 0,5 m green (DOM to amplifier)



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

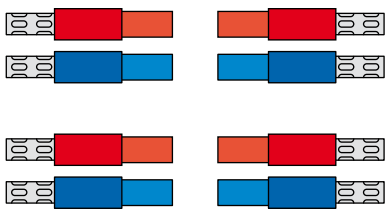
Audio-connection cable length 1.8 m



Audiocable, stereo-cinch.

583414

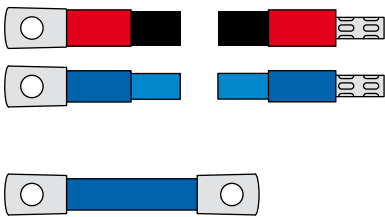
Cable set 24 V DC VARIODYN D1 Comprio 4XD



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

583413

Cable set for connecting batteries to VARIODYN D1 4XDxxxB amplifier




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

581340

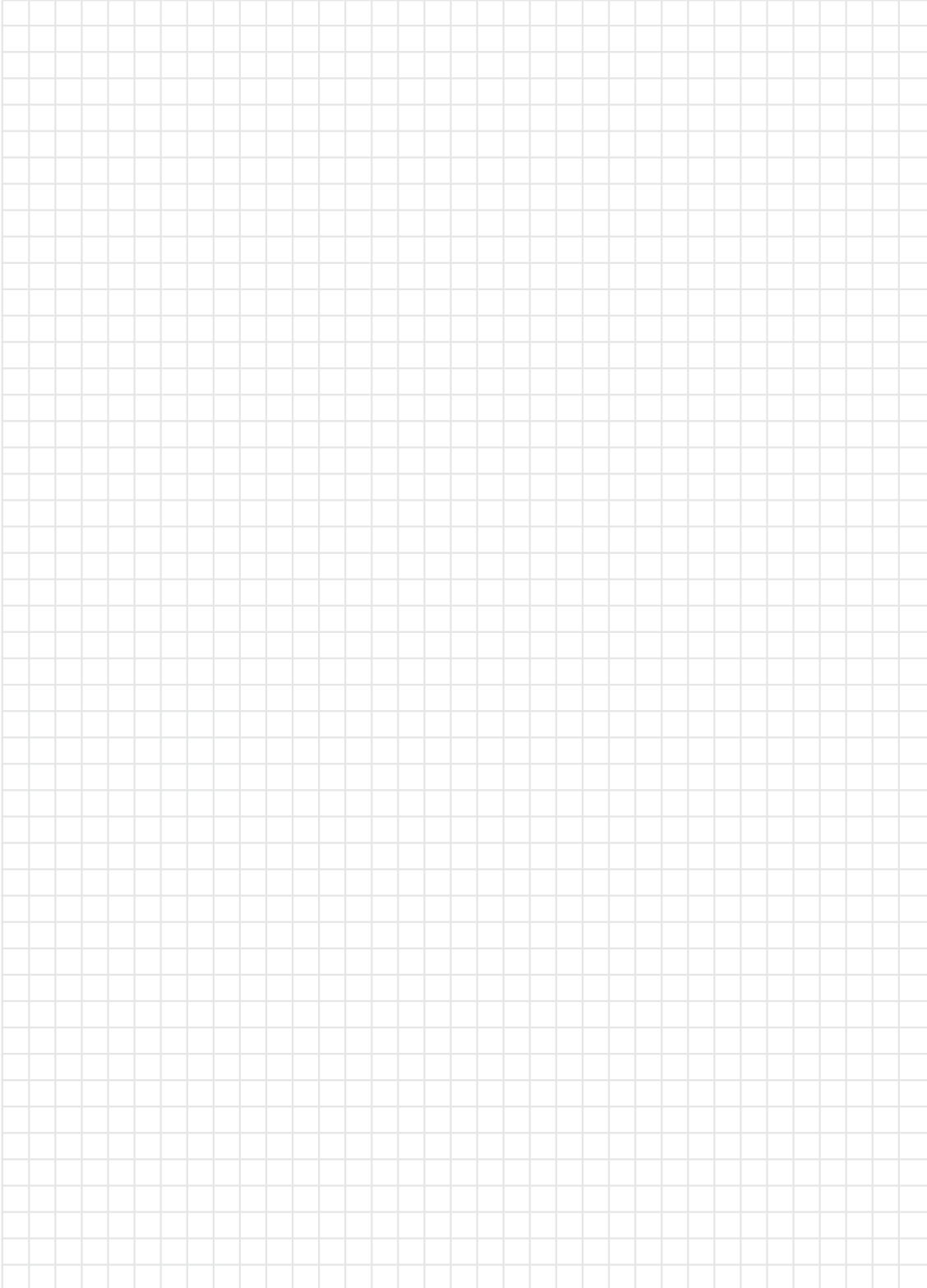
Peripheral clip for top hat rail



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. 583466A, 583467A or 583469A) 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 a suitable CAT5 cable from our product portfolio (e.g. Part No. 583466A)







Loudspeaker EN 54-24

Ceiling Loudspeaker	72-77
Cabinet Loudspeaker	78-81
Horn Loudspeaker	82-83
Sound Projector	84-85
Spherical Loudspeaker	86
Column Loudspeaker	87-88

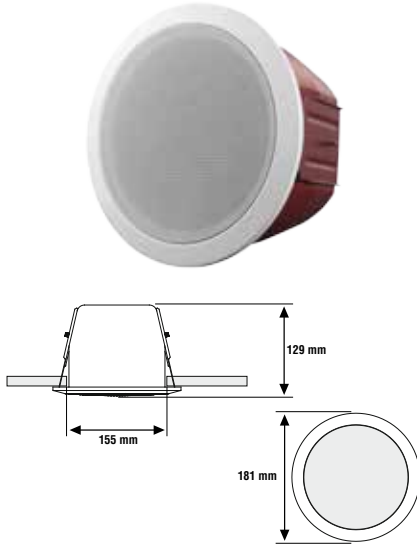
Important information on sound pressure level specifications:

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

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 %
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-506.LIM

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

NEW



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.

Contains a built-in LIM Module!

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 %
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



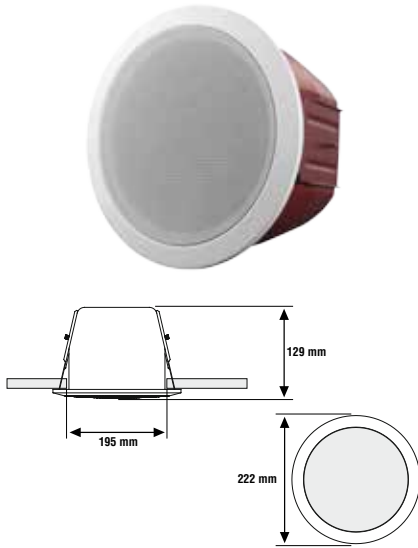
Delivery time on request.

Loudspeaker EN 54-24

Ceiling Loudspeaker

LSC-606

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 %
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

LSC-606/DC

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

NEW



This voice alarm ceiling loudspeaker is specifically designed for use in buildings where performance of systems for voice evacuation announcements is governed by regulations. **Based on LSC-606 but contains a capacitor for the loudspeaker line monitoring with DC.** 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

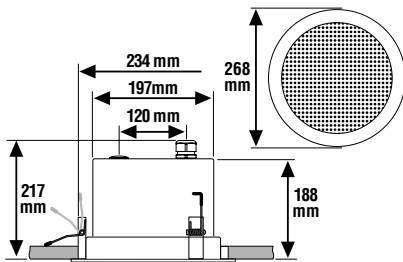
Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 / 0,75 W
Rated impedance	1,7 / 3,3 / 6,7 / 13 kΩ
Sensitivity EN 54-24, 1 W / 1 m	91 dB
Sensitivity EN 54-24, max 1 m	99 dB
Transmission range	170 ... 20000 Hz (-10 dB)
Dispersion angle	170° (H), 171° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Storage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



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

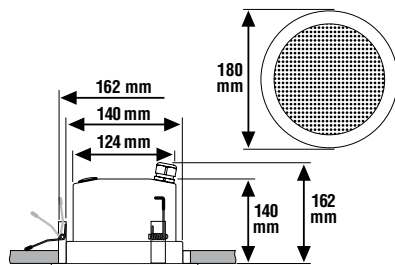
Rated Power	10 W
Transformer power taps	10 / 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	93.9 dB
Sensitivity EN 54-24, max 1 m	103.4 dB
Transmission range	243 ... 19700 Hz (-10 dB)
Dispersion angle	178° @ 1kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 2.1 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

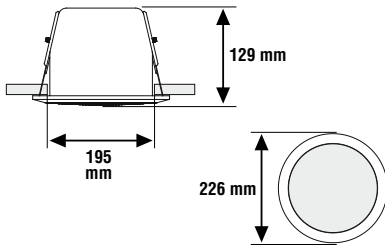
Rated Power	20 W
Transformer power taps	20 / 15 / 10 / 5 W
Sensitivity EN 54-24, 1 W / 1 m	88.8 dB
Sensitivity EN 54-24, max 1 m	101.3 dB
Transmission range	370 ... 16800 Hz (-10 dB)
Dispersion angle	178° @ 1kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 1.8 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



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

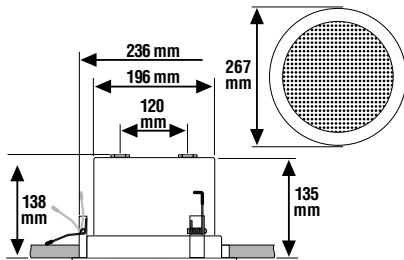
The 6.5" ceiling loudspeaker with its 2-way system features an excellent sound quality. It offers a broad frequency range and a high sound pressure level, thereby guaranteeing excellent music and speech reproduction. It is eminently suitable for demanding sound applications such as bistros, restaurants, 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 %
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

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

582411

6 W, 5" ceiling loudspeaker EN 54, ABS dome

NEW



Approval as per EN 54-24, 0359-CPR-00616

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 an uncomplicated and quick mounting onto the ceiling. The ABS dome enables easy wiring. The speaker contains a ceramic terminal and a thermal fuse.

Technical Data

Rated Power	6 W
Transformer power taps	6/3/1.5 W
Rated impedance	1
Sensitivity EN 54-24, 1 W / 1 m	77 dB
Sensitivity EN 54-24, max 1 m	0 dB
Transmission range	100 ... 20000 Hz (-10 dB)
Dispersion angle	180° @ 1kHz
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	0 ... 95 %
Material	Plastic
Color	white, similar to RAL 9016
Weight	approx. 0.76 kg
Cut-out size	(Ø min.) 165 mm
Dimensions	Ø: 200 mm D: 72 mm
Declaration of Performance	0359-CPR-00616

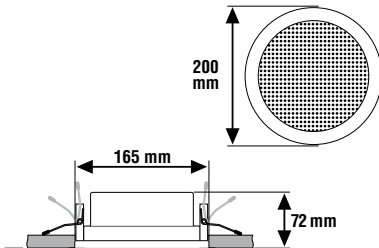
582408

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 9016
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

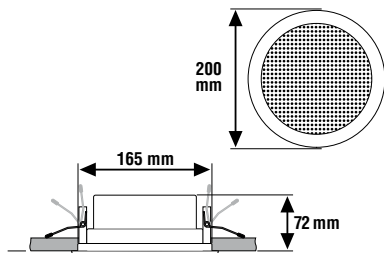
Color	black
Weight	approx. 0.39 kg
Dimensions	Ø: 155 mm D: 87 mm
Declaration of Performance	012-13



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 pre-mounted 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 9016
Weight	approx. 0.76 kg
Cut-out size	(Ø min.) 165 mm
Dimensions	Ø: 200 mm D: 72 mm
Declaration of Performance	012-13

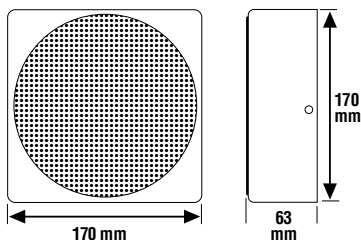
Accessories

Optional:
582408.FD Fire dome (FE 165.1)

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
582426	X	X	X
582428	X	X	X

582470

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

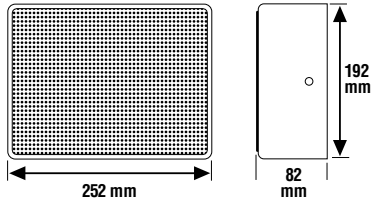
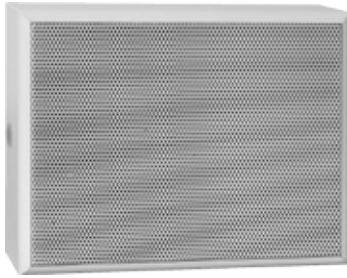
Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 / 0,75 W
Rated impedance	1,7 / 3,3 / 6,7 kΩ
Sensitivity EN 54-24, 1 W / 1 m	91 dB
Sensitivity EN 54-24, max 1 m	99 dB
Transmission range	300 ... 15000 Hz (-10 dB)
Dispersion angle	175° (H), 174° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 %
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

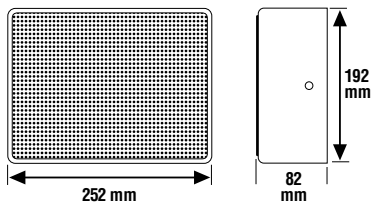
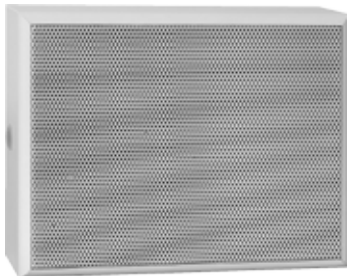
Rated Power	12 W
Transformer power taps	2 x 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	89.5 dB
Sensitivity EN 54 (double)	92.6 dB
Sensitivity EN 54-24 max (double)	100.1 dB
Sensitivity EN 54-24, max 1 m	97 dB
Transmission range	227 ... 14600 Hz (-10 dB)
Dispersion angle	80° (H), 77° (V) @ 1 kHz
Ambient 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

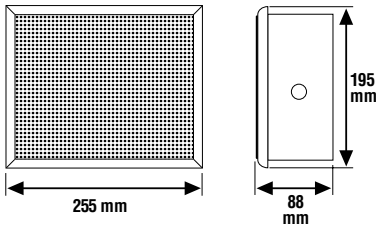
Rated Power	12 W
Transformer power taps	2 x 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	89.5 dB
Sensitivity EN 54 (double)	92.6 dB
Sensitivity EN 54-24 max (double)	100.1 dB
Sensitivity EN 54-24, max 1 m	97 dB
Transmission range	227 ... 14600 Hz (-10 dB)
Dispersion angle	80° (H), 77° (V) @ 1 kHz
Ambient 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.

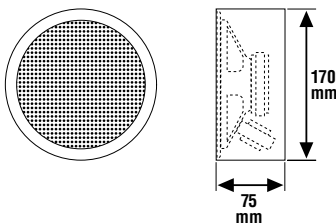
Technical Data

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 10-165/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

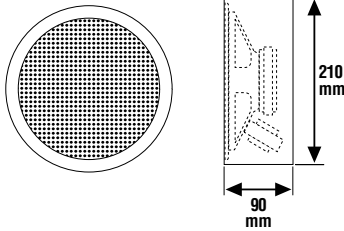
 Delivery time on request

Loudspeaker EN 54-24

Cabinet Loudspeaker

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

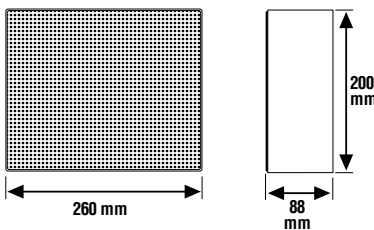
Rated Power	10 W
Transformer power taps	10 / 6 / 3 / 1,5 W
Sensitivity EN 54-24, 1 W / 1 m	92.5 dB
Sensitivity EN 54-24, max 1 m	102 dB
Transmission range	275 ... 19100 Hz (-10 dB)
Dispersion angle	80° @ 1 kHz
Ambient temperature	-20 °C ... 80 °C
Color	white, similar to RAL 9010
Weight	approx. 2.1 kg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

 Delivery time on request

582426

6 W cabinet loudspeaker

NEW



Approval as per EN 54-24

This loudspeaker is a high-performance 6 W voice alarm cabinet loudspeaker. It provides a broad frequency response range. Low distortion and high sound pressure level for accurate and intelligible broadcast of evacuation messages and high quality sound reproduction. It is ideal for sound distribution in various types of commercial buildings. Its low-profile white color design blends easily with most interiors in locations such as hotel, conference rooms, cinemas, factories and exhibitions.

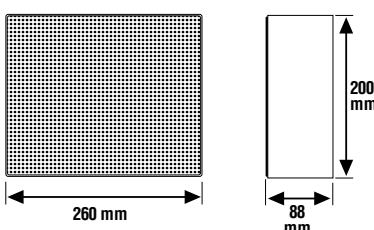
Technical Data

Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 W (100 V), 3 / 1,5 / 0,75 W (70 V)
Rated impedance	1,67 / 3,3 / 6,67 kΩ
Sensitivity EN 54-24, 1 W / 1 m	92 dB
Sensitivity EN 54-24, max 1 m	99.5 dB
Transmission range	150 ... 16000 Hz (-10 dB)
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 %
Material	ABS
Color	white, similar to RAL 9010
Weight	approx. 1.63 kg
Dimensions	L: 200 mm W: 260 mm D: 88 mm

582428

2 x 6 W cabinet loudspeaker

NEW



Approval as per EN 54-24

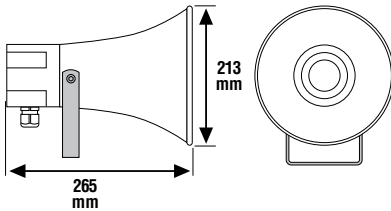
This loudspeaker is a high-performance 6 W dual channel (A / B channel work at the same time) voice alarm cabinet loudspeaker. It provides a broad frequency response range. Low distortion and high sound pressure level for accurate and intelligible broadcast of evacuation messages and high quality sound reproduction. It is ideal for sound distribution in various types of commercial buildings. Its low-profile white color design blends easily with most interiors in locations such as hotel, conference rooms, cinemas, factories and exhibitions.

Technical Data

Rated Power	2 W
Transformer power taps	2 x 6 / 3 / 1,5 W (100 V), 3 / 1,5 / 0,75 W (70 V)
Rated impedance	1,67 / 3,3 / 6,67 kΩ
Sensitivity EN 54-24, 1 W / 1 m	92 dB
Sensitivity EN 54-24, max 1 m	99.5 dB
Transmission range	150 ... 16000 Hz (-10 dB)
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 %
Material	ABS
Color	white, similar to RAL 9010
Weight	approx. 1.74 kg
Dimensions	L: 200 mm W: 260 mm D: 88 mm

582479

15 W horn loudspeaker EN 54, ABS



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

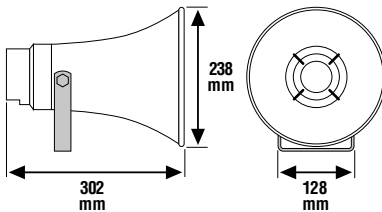
The horn loudspeaker offers a high sound pressure and long-lasting weather resistance, ideal for use in industrial projects. The IP 66 high protection class guarantees operational safety even under the most difficult conditions. The loudspeaker is also equipped with a ceramic terminal block and a thermal 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

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

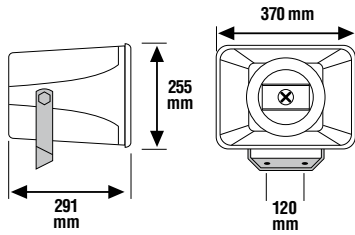
Rated Power	30 W
Transformer power taps	30 / 20 / 10 / 5 W
Sensitivity EN 54-24, 1 W / 1 m	91.9 dB
Sensitivity EN 54-24, max 1 m	124 dB
Transmission range	592 ... 6900 Hz (-10 dB)
Dispersion angle	103° @ 1 kHz
Ambient temperature	-20 °C ... 90 °C
Type of protection	IP 66 (zertifiziert)
Color	gray, similar 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

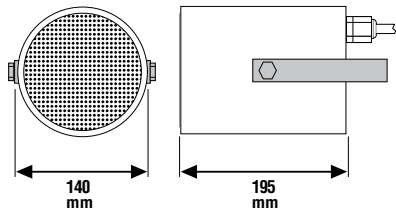
Rated Power	30 W
Transformer power taps	30 / 15 / 7,5 / 3,75 W
Sensitivity EN 54-24, 1 W / 1 m	90.4 dB
Sensitivity EN 54-24, max 1 m	104.8 dB
Transmission range	237 ... 21100 Hz (-10 dB)
Dispersion angle	60° (H), 99° (V) @ 1 kHz
Ambient temperature	-20 °C ... 90 °C
Color	white, similar to RAL 9010
Weight	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



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

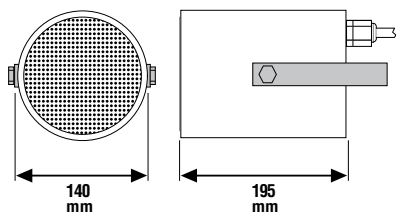
Rated Power	10 W
Transformer power taps	10 / 5 / 2,5 / 1,25 W
Sensitivity EN 54-24, 1 W / 1 m	89 dB
Sensitivity EN 54-24, max 1 m	99 dB
Transmission range	150 ... 20000 Hz (-10 dB)
Dispersion angle	214° (H), 219° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Type of protection	IP 65
Color	white, similar 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



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

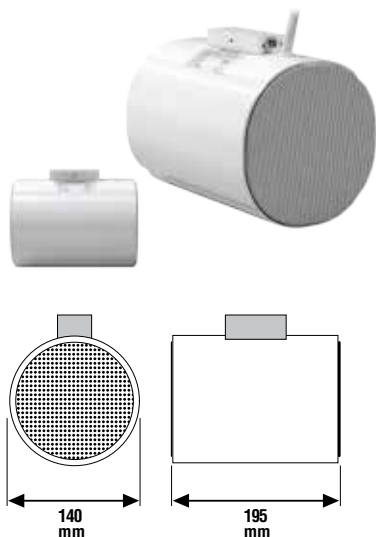
Rated Power	20 W
Transformer power taps	20 / 10 / 5 / 2,5 W
Sensitivity EN 54-24, 1 W / 1 m	89 dB
Sensitivity EN 54-24, max 1 m	102.5 dB
Transmission range	150 ... 20000 Hz (-10 dB)
Dispersion angle	214° (H), 219° (V) @ 1 kHz
Ambient temperature	-25 °C ... 55 °C
Type of protection	IP 65
Color	white, 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

**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

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

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



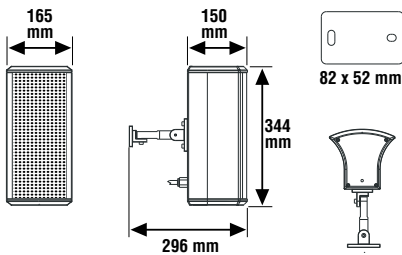
Delivery time on request.

582476

20 W column loudspeaker EN 54, metal

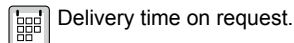
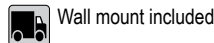
Approval as per EN 54-24, 0359/CPD/00456

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 %
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

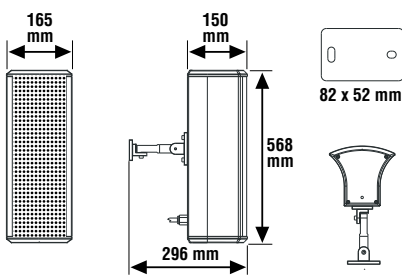


582477

40 W column loudspeaker EN 54, metal

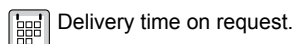
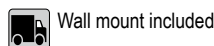
Approval as per EN 54-24, 0359/CPD/00455

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 %
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



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

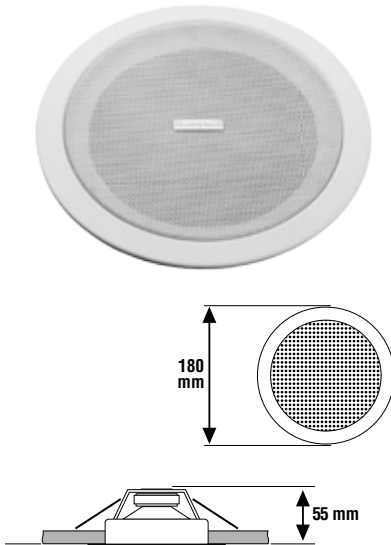
Ceiling Loudspeaker	90
Cabinet Loudspeaker	91-92
Sound Projector	93
Horn Loudspeaker	94
Spherical Loudspeaker	95
Accessories	96

Standard Loudspeaker

Ceiling Loudspeaker

581263

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

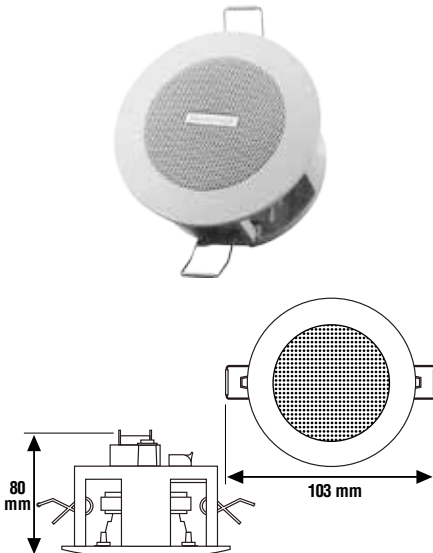
Rated Power	6 W
Transformer power taps	6 / 3 / 1,5 W
Rated impedance	1,7 / 3,3 / 6,7 kΩ
SPL 1 W / 1 m	90 dB
Transmission range	120 ... 20000 Hz (-10 dB)
Dispersion angle	160°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 %
Material	Metal
Color	white, similar 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

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 %
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



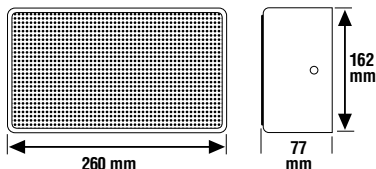
Delivery time on request.

Standard Loudspeaker

Cabinet Loudspeaker

581270

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

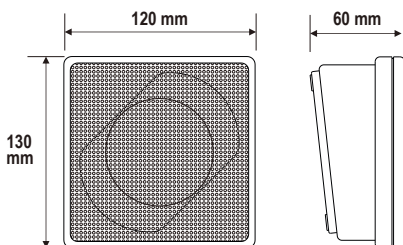
Rated Power	6 W
Transformer power taps	6 / 3 W
Rated impedance	1,7 / 3,3 kΩ
SPL 1 W / 1 m	90 dB
Transmission range	200 ... 20000 Hz (-10 dB)
Dispersion angle	120°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 %
Material	ABS
Color	white, similar to RAL 9010
Weight	approx. 1 kg
Dimensions	W: 260 mm H: 162 mm D: 77 mm



Delivery time on request.

581275

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

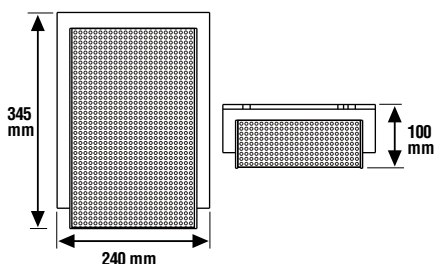
Rated Power	3 W
Transformer power taps	3 / 1,5 W
Rated impedance	3,3 / 6,7 kΩ
SPL 1 W / 1 m	88 dB
Transmission range	300 ... 6000 Hz (-10 dB)
Dispersion angle	180°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 %
Material	ABS
Color	white, similar to RAL 9003
Weight	approx. 0,4 kg
Dimensions	W: 120 mm H: 60 mm D: 30 mm



Delivery time on request.

581276

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 %
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.

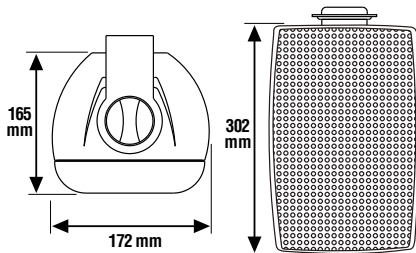
581277

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 %
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

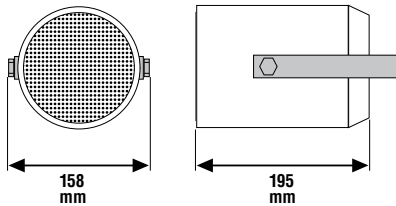


Due to its high-quality ABS enclosure and its special mechanical design, this sound projector can be used in places where air humidity and temperatures are high. With its broad frequency range and high sound pressure level, this loudspeaker is eminently suitable for use in train stations, shopping centers,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



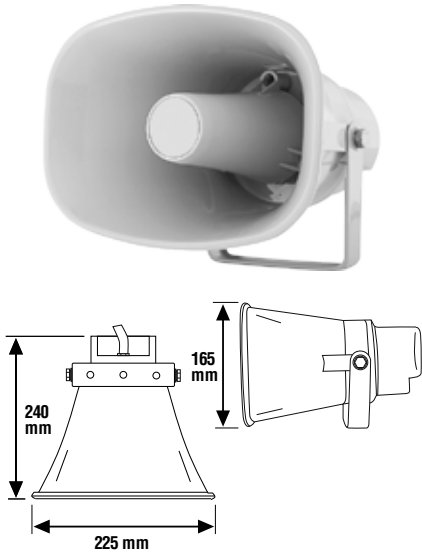
Delivery time on request.

Standard Loudspeaker

Horn Loudspeaker

581271

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

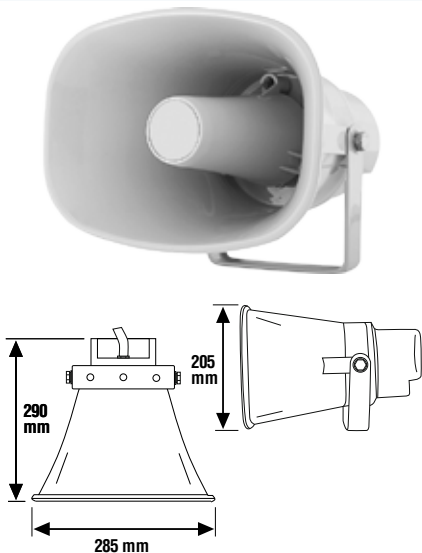
Rated Power	15 W
Transformer power taps	15 / 7,5 W
Rated impedance	0,67 / 1,3 k Ω
SPL 1 W / 1 m	103 dB
Transmission range	350 ... 8000 Hz (-10 dB)
Dispersion angle	140°
Ambient temperature	-25 °C ... 55 °C
Storage temperature	-40 °C ... 70 °C
Air humidity	< 95 %
Type of protection	IP 66
Material	ABS
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

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 k Ω
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 %
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	98-101
DLI-130	102
DLI-230	103
LFI-350	104
LFI-450	105
Accessories	106-107

Voice Alarms and Announcements – Special environmental conditions require special solutions

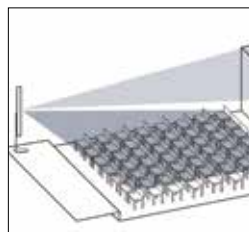


In the field of sophisticated architecture, certain background conditions must be met when implementing a successful safety concept. In relation to the support for possible evacuation measures, modern loudspeaker technology now makes it possible to obtain outstanding results even under difficult conditions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

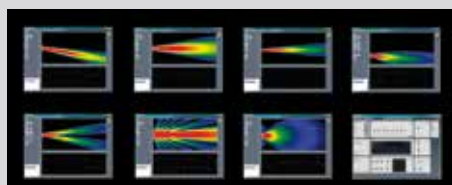
Architecture and alarms

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 in sophisticated architecture and alarm systems are no longer mutually incompatible.



Our PAVA specialists will be happy to support you in the preparation of a concept in the planning phase with respect to the implementation of appropriate measures for technical fire protection and a voice alarm system for evacuations. This also includes acoustic 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 PAVA system.



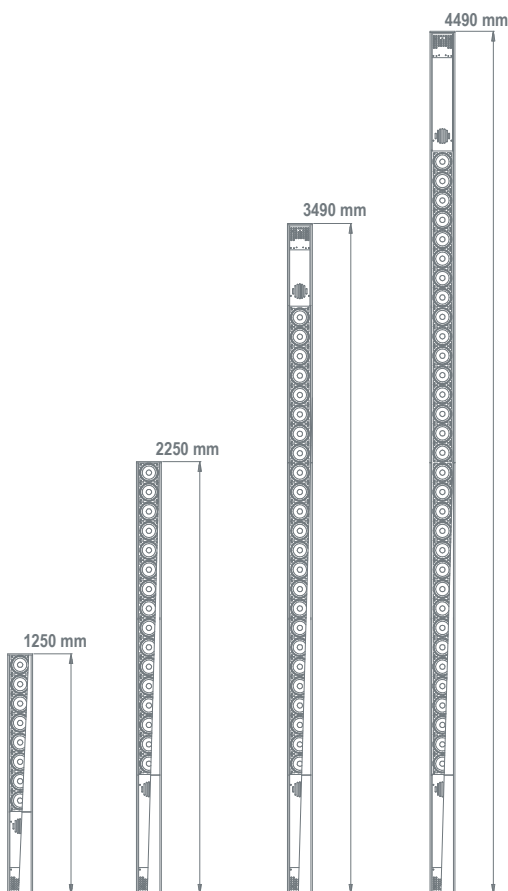
The functioning of an active line array is controlled by software, the DSP, which steers the beam. This adjustment

Any questions?

If you have any questions or need support in advance, you can contact our regional specialists for compliant announcements in your applicable regions. A list of contacts appears in our product catalog.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

General Features



- 8, 16, 24 or 32 integral digital amplifiers and digital signal processors (DSP)
- Precise Beam control in 0.1 degree steps and in real-time
- 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
- Aluminium housing with slim, discreet design
- Low weight
- No mechanical steering of speaker necessary
- Discreet integration in the room architecture
- In-wall integration possible
- Beam Steering DSP:
 - Vertical dispersion monitoring
 - Beam angle (0° - 90° in 0.1° steps)
 - Inclination angle (-40° - +40° in 0.1° steps)
 - Movable acoustic centre
 - Two Beam Technology
 - Side Lobe Free Technology
 - High-pass
- User DSP control for:
 - Volume
 - Routing
 - 10-band fully parametric equaliser
 - Internal Delay
 - Crossover
 - Compressor/Limiter
 - Noise Gate
 - 100 User Presets
- Intuitive operating software for configuration of all systems, all parameters, and focus simulation – using the latest version of Fohhn Audio Soft
- 100 Presets possible: all Beam Steering- and User DSP settings can be stored and recalled in real-time
- Optional integration in media controls
- Complex remote control and monitoring via Fohhn-Net
- Comprehensive range of mounting accessories for fixed installations
- Easy servicing due to superior design
- Green Power Standby Mode
- German Quality – engineered and made by Fohhn
- Available in all RAL colours (other colour catalogues available on request)
- System integration in accordance with EN 60849 and EN 50849 (emergency and fire evacuation)



Integration in evacuation systems

Features

- Pilot tone monitoring
- Monitoring of all important device parameters
- Intelligent evaluation
- Switching contact (configurable)*
- Fault contact (relay 2x alternate)*

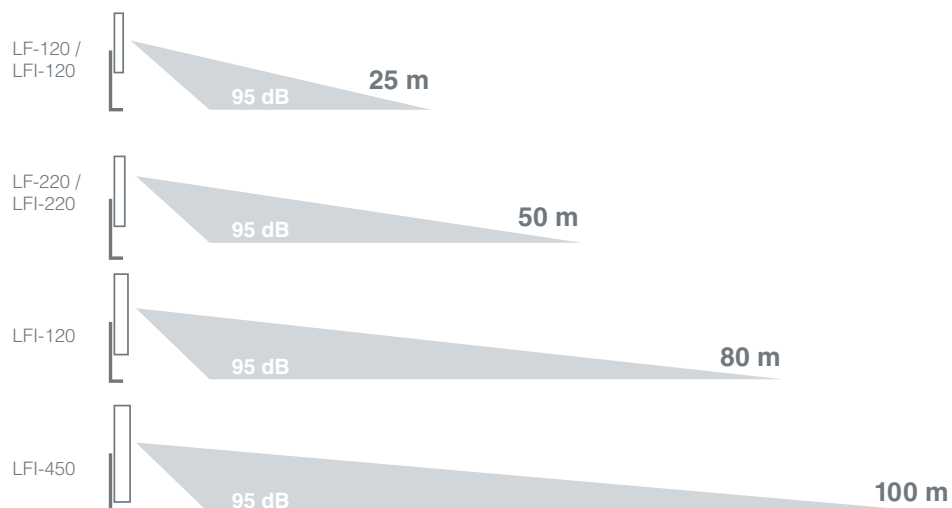
The following faults can be monitored and displayed

- 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
- Pilot tone monitoring signal missing (configurable)
- Network errors (each message is confirmed)

Fault messages are displayed and transmitted via:

- 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)

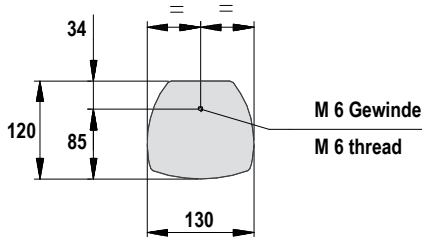
Different types versus different distances



582670.B

Electronically steerable line source speaker DLI-130 ANA HB

NEW



Applicable in EN 60849 projects

The DLI-130 ANA HB is an active, electronically steerable line source speaker in black. Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8 x 4" neodymium speakers, which are distinguished by their very long excursion.

The DLI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required.

The system allows for programming in real time, so it will save a lot of time when setting up.

The system can generate two separate dispersion beams, which can be operated with variable acoustic beam centres.

Furthermore, its important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828.

Linea Focus systems can only be configured with the latest version of Fohhn Audio Soft.

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

Technical Data

SPL Pmax / 1 m	124 dB
Sensitivity	106 dB
Transmission range	60 ... 17000 Hz (-10 dB)
Dispersion angle	110° (H)
Housing	Aluminium
Color	black (Optional all RAL colours)
Weight	approx. 8 kg
Dimensions	W: 130 mm H: 1250 mm D: 120 mm



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors are available on request (powder coating)

Optionally, other colors for wall mounts are available on request.

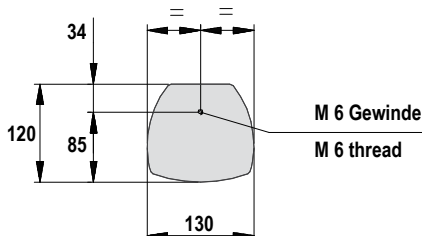


Delivery time on request.

582670.W

Electronically steerable line source speaker DLI-130 ANA HW

NEW



Applicable in EN 60849 projects

The DLI-130 ANA HW is an active, electronically steerable line source speaker in white. Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8 x 4" neodymium speakers, which are distinguished by their very long excursion.

The DLI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required.

The DLI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required.

The system allows for programming in real time, so it will save a lot of time when setting up.

The system can generate two separate dispersion beams, which can be operated with variable acoustic beam centres.

Furthermore, its important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828.

Linea Focus systems can only be configured with the latest version of Fohhn Audio Soft.

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

Technical Data

SPL Pmax / 1 m	124 dB
Sensitivity	106 dB
Transmission range	60 ... 17000 Hz (-10 dB)
Dispersion angle	110° (H)
Housing	Aluminium
Color	white, similar to RAL 9016 (Optional all RAL colours)
Weight	approx. 8 kg
Dimensions	W: 130 mm H: 1250 mm D: 120 mm



Fohhn-Net adapter is required to connect to a PC

Optionally, depending on the application, various mounting brackets

Optionally, other colors are available on request (powder coating)

Optionally, other colors for wall mounts are available on request.

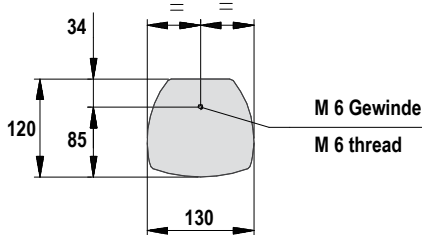


Delivery time on request.

582671.B

Electronically steerable line source speaker DLI-230 ANA HB

NEW



Applicable in EN 60849 projects

The DLI-230 ANA HB is an active, electronically steerable line source speaker in black. Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8 x 4" neodymium speakers, which are distinguished by their very long excursion.

The DLI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required.

The system allows for programming in real time, so it will save a lot of time when setting up.

The system can generate two separate dispersion beams, which can be operated with variable acoustic beam centres.


Furthermore, its important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828.


Linea Focus systems can only be configured with the latest version of Fohhn Audio Soft.

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

Technical Data

SPL Pmax / 1 m	130 dB
Sensitivity	112 dB
Transmission range	60 ... 17000 Hz (-10 dB)
Dispersion angle	110° (H)
Housing	Aluminium
Color	black (Optional all RAL colours)
Weight	approx. 15 kg
Dimensions	W: 130 mm H: 2250 mm D: 120 mm

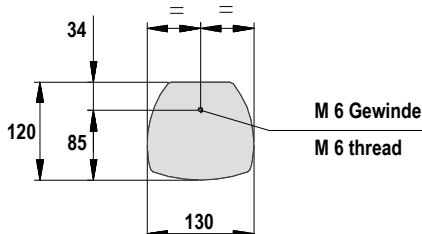
-  Fohhn-Net adapter is required to connect to a PC
- Optionally, depending on the application, various mounting brackets
- Optionally, other colors are available on request (powder coating)
- Optionally, other colors for wall mounts are available on request.

-  Delivery time on request.

582671.W

Electronically steerable line source speaker DLI-230 ANA HW

NEW



Applicable in EN 60849 projects

The DLI-230 ANA HW is an active, electronically steerable line source speaker in white. Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8 x 4" neodymium speakers, which are distinguished by their very long excursion.

The DLI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required.

The system allows for programming in real time, so it will save a lot of time when setting up.

The system can generate two separate dispersion beams, which can be operated with variable acoustic beam centres.


Furthermore, its important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828.


Linea Focus systems can only be configured with the latest version of Fohhn Audio Soft.

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

Technical Data

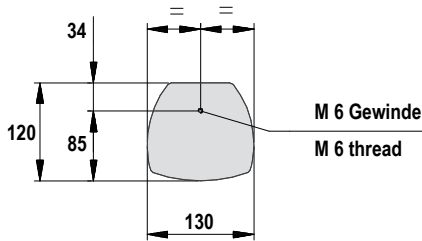
SPL Pmax / 1 m	130 dB
Sensitivity	112 dB
Transmission range	60 ... 17000 Hz (-10 dB)
Dispersion angle	110° (H)
Housing	Aluminium
Color	white, similar to RAL 9016 (Optional all RAL colours)
Weight	approx. 15 kg
Dimensions	W: 130 mm H: 2250 mm D: 120 mm

-  Fohhn-Net adapter is required to connect to a PC
- Optionally, depending on the application, various mounting brackets
- Optionally, other colors are available on request (powder coating)
- Optionally, other colors for wall mounts are available on request.

-  Delivery time on request.

582602.B

Electronically steerable line source speaker LFI-350 ANA HB





Applicable in EN 60849 projects

The LFI-350 ANA HB is an active, electronically steerable line source speaker in black. Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8 x 4" neodymium speakers, which are distinguished by their very long excursion. The LFI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required. The system allows for programming in real time, so it will save a lot of time when setting up. The system can generate two separate dispersion beams, which can be operated with variable acoustic beam centres. Furthermore, its important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. Linea Focus systems can only be configured with the latest version of Fohhn Audio Soft. Optionally, depending on the application, various mounting brackets are available.

Technical Data

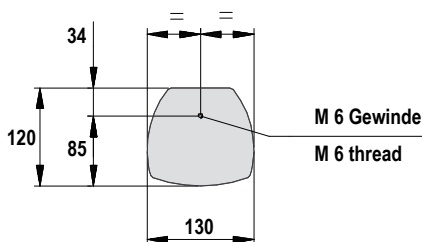
SPL Pmax / 1 m	133.5 dB
Sensitivity	115.5 dB
Transmission range	60 ... 17000 Hz (-10 dB)
Dispersion angle	110° (H)
Housing	Aluminium
Color	black (Optional all RAL colours)
Weight	approx. 25 kg
Dimensions	W: 130 mm H: 3490 mm D: 120 mm

-  Fohhn-Net adapter is required to connect to a PC
- Optionally, depending on the application, various mounting brackets
- Optionally, other colors are available on request (powder coating)
- Optionally, other colors for wall mounts are available on request.

 Delivery time on request.

582602.W

Electronically steerable line source speaker LFI-350 ANA HW





Applicable in EN 60849 projects

The LFI-350 ANA HW is an active, electronically steerable line source speaker in white. Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8 x 4" neodymium speakers, which are distinguished by their very long excursion. The LFI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required. The system allows for programming in real time, so it will save a lot of time when setting up. The system can generate two separate dispersion beams, which can be operated with variable acoustic beam centres. Furthermore, its important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. Linea Focus systems can only be configured with the latest version of Fohhn Audio Soft. Optionally, depending on the application, various mounting brackets are available.

Technical Data

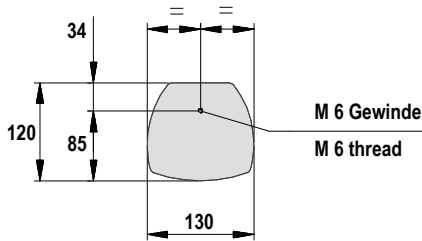
SPL Pmax / 1 m	133.5 dB
Sensitivity	115.5 dB
Transmission range	60 ... 17000 Hz (-10 dB)
Dispersion angle	110° (H)
Housing	Aluminium
Color	white, similar to RAL 9016 (Optional all RAL colours)
Weight	approx. 25 kg
Dimensions	W: 130 mm H: 3490 mm D: 120 mm

-  Fohhn-Net adapter is required to connect to a PC
- Optionally, depending on the application, various mounting brackets
- Optionally, other colors are available on request (powder coating)
- Optionally, other colors for wall mounts are available on request.

 Delivery time on request.

582603.B

Electronically steerable line source speaker LFI-450 ANA HB



Applicable in EN 60849 projects

The LFI-450 ANA HB is an active, electronically steerable line source speaker in black. Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8 x 4" neodymium speakers, which are distinguished by their very long excursion. The LFI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required. The system allows for programming in real time, so it will save a lot of time when setting up. The system can generate two separate dispersion beams, which can be operated with variable acoustic beam centres. Furthermore, its important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. Linea Focus systems can only be configured with the latest version of Fohhn Audio Soft. Optionally, depending on the application, various mounting brackets are available.

Technical Data

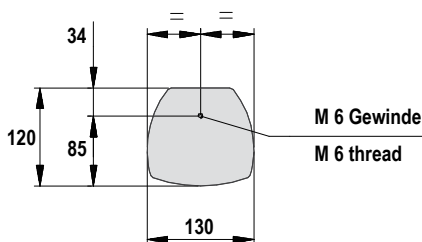
SPL Pmax / 1 m	136 dB
Sensitivity	118 dB
Transmission range	60 ... 17000 Hz (-10 dB)
Dispersion angle	110° (H)
Housing	Aluminium
Color	black (Optional all RAL colours)
Weight	approx. 32 kg
Dimensions	W: 130 mm H: 4490 mm D: 120 mm

- Fohhn-Net adapter is required to connect to a PC
- Optionally, depending on the application, various mounting brackets
- Optionally, other colors are available on request (powder coating)
- Optionally, other colors for wall mounts are available on request.

Delivery time on request.

582603.W

Electronically steerable line source speaker LFI-450 ANA HW



Applicable in EN 60849 projects

The LFI-450 ANA HW is an active, electronically steerable line source speaker in white. Its integrated digital 8-channel DSP amplifier is perfectly tuned to the system. It is equipped with 8 x 4" neodymium speakers, which are distinguished by their very long excursion. The LFI systems are generally installed in cases where conventional methods cannot get you anywhere, because of difficult acoustic conditions, and in projects where excellent speech intelligibility and high sound pressure are required. The system allows for programming in real time, so it will save a lot of time when setting up. The system can generate two separate dispersion beams, which can be operated with variable acoustic beam centres. Furthermore, its important features should be emphasized for system integration as per EN 60849 / DIN VDE 0828. Linea Focus systems can only be configured with the latest version of Fohhn Audio Soft. Optionally, depending on the application, various mounting brackets are available.

Technical Data

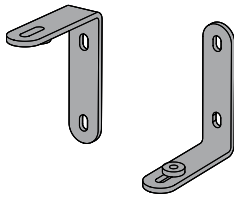
SPL Pmax / 1 m	136 dB
Sensitivity	118 dB
Transmission range	60 ... 17000 Hz (-10 dB)
Dispersion angle	110° (H)
Housing	Aluminium
Color	white, similar to RAL 9016 (Optional all RAL colours)
Weight	approx. 32 kg
Dimensions	W: 130 mm H: 4490 mm D: 120 mm

- Fohhn-Net adapter is required to connect to a PC
- Optionally, depending on the application, various mounting brackets
- Optionally, other colors are available on request (powder coating)
- Optionally, other colors for wall mounts are available on request.

Delivery time on request.

582610.B

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



The WAL-1B is a black coated wall bracket specifically for the series DLI-130/230HB. These mounting brackets are suitable for installations in which the above Speakers must be mounted flat and straight to the attachment site.

Technical Data

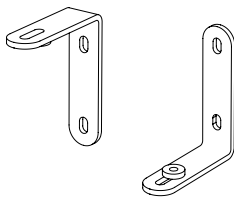
Material	Aluminum
Color	black (Optional all RAL colours)
Dimensions	H: 100 mm D: 85 mm



Delivery time on request.

582610.W

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



The WAL-1W is a white coated (RAL 9016) wall bracket specifically for the series DLI-130/230HB. These mounting brackets are suitable for installations in which the above Speakers must be mounted flat and straight to the attachment site.

Technical Data

Material	Aluminum
Color	white, similar to RAL 9016 (Optional all RAL colours)
Dimensions	H: 100 mm D: 85 mm



Delivery time on request.

582611.B

WLF-1B, wall bracket for DLI-130/230 XXX HB, LFI-350/450 HB



The WLF-1B is a wall bracket painted in black specifically for the series DLI-130 HB, DLI-230 HB, LFI-350 HB and LFI-450 HB. 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-350 HB and LFI-450 HB, minimum 2 of these mounts are necessary.

Technical Data

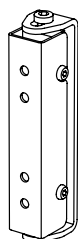
Material	Aluminum
Color	black (Optional all RAL colours)
Dimensions	W: 160 mm D: 42.5 mm



Delivery time on request.

582611.W

WLF-1B, wall bracket for DLI-130/230 XXX HB, LFI-350/450 HW



The WLF-1W is a wall bracket painted in white specifically for the series DLI-130 HB, DLI-230 HB, LFI-350 HB and LFI-450 HB. 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-350 HB and LFI-450 HB, minimum 2 of these mounts are necessary.

Technical Data

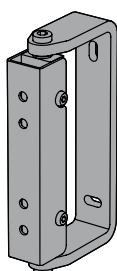
Material	Aluminum
Color	white, similar to RAL 9016 (Optional all RAL colours)
Dimensions	W: 160 mm D: 42.5 mm



Delivery time on request.

582612.B

WLF-2B, wall bracket for DLI-130/230 XXX HB, LFI-350/450 HB



The WLF-2B is a wall bracket painted in black specifically for the series DLI-130 HB, DLI-230 HB, LFI-350 HB and LFI-450 HB. 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-350 HB and LFI-450 HB, minimum 2 of these mounts are necessary.

Technical Data

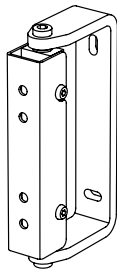
Material	Aluminum
Color	black (Optional all RAL colours)
Dimensions	W: 169 mm D: 90.5 mm



Delivery time on request.

582612.W


WLF-2B, wall bracket for DLI-130/230 XXX HB, LFI-350/450 HW



The WLF-2W is a wall bracket painted in white specifically for the series DLI-130 HB, DLI-230 HB, LFI-350 HB and LFI-450 HB. 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-350 HB and LFI-450 HB, minimum 2 of these mounts are necessary.

Technical Data

Material	Aluminum
Color	white, similar to RAL 9016 (Optional all RAL colours)
Dimensions	W: 169 mm D: 90.5 mm

 Delivery time on request.

582604.W


Interface module, white



The Interface module is equipped with a 100 V transformer, adapted for 2.5 W used with the electronically steerable line source speakers it forms the first electronically steerable line source speaker in the world with Loop Technology. The solution is 100 % compliant to EN 60849 and EN 50849 and (the module itself) EN 54-17 certified.

Technical Data

Ambient temperature	-20 °C ... 65 °C
Storage temperature	-40 °C ... 70 °C
Material	Aluminum
Color	white, similar to RAL 9016
Weight	approx. 0.9 kg
Dimensions	W: 130 mm H: 120 mm D: 74 mm

 Only compatible with DLI-130/230 ANA and LFI-350/450

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, adapted for 2.5 W used with the electronically steerable line source speakers it forms the first electronically steerable line source speaker in the world with Loop Technology. The solution is 100 % compliant to EN 60849 and EN 50849 and (the module itself) EN 54-17 certified.

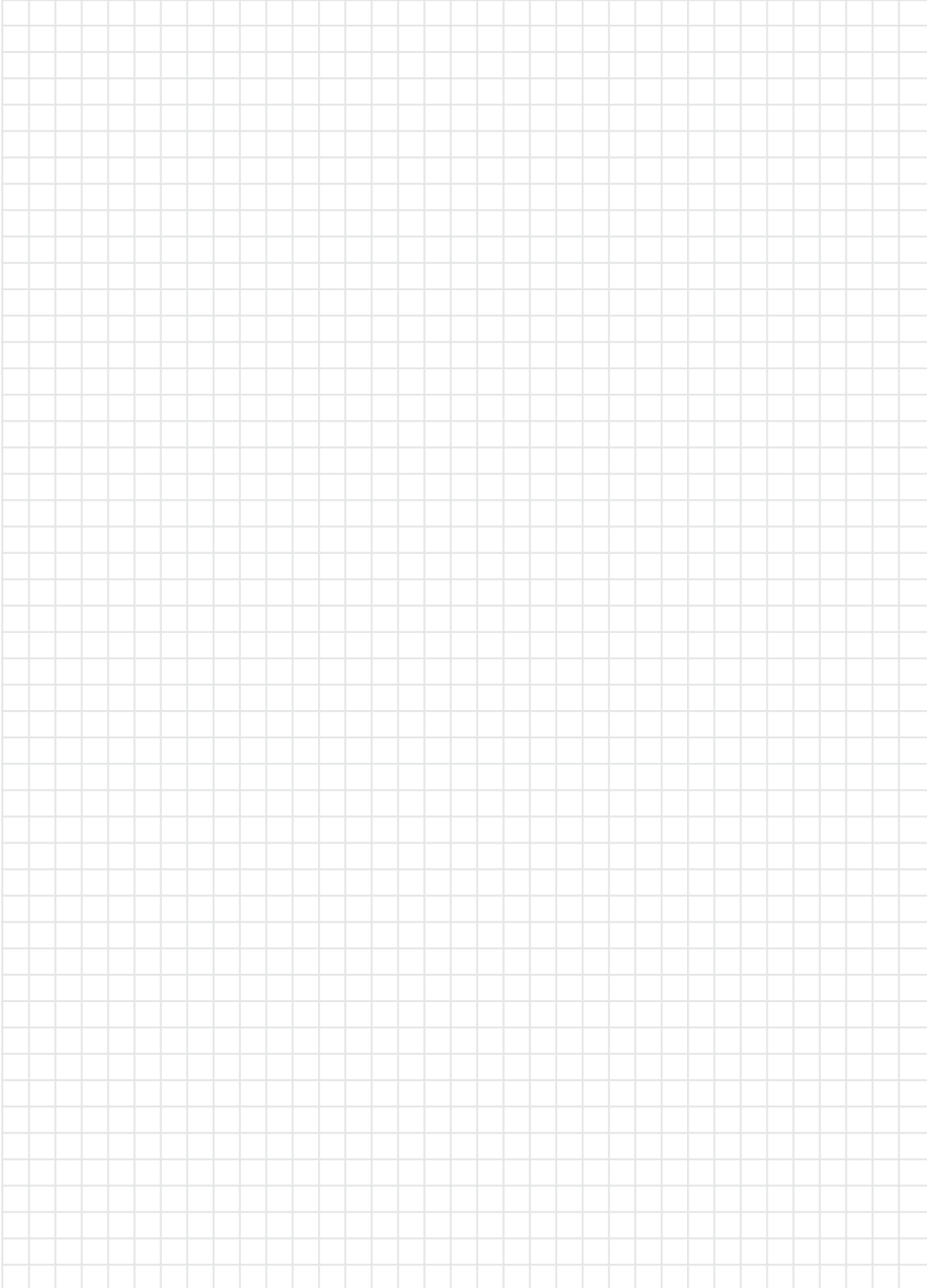
Technical Data

Ambient temperature	-20 °C ... 65 °C
Storage temperature	-40 °C ... 70 °C
Material	Aluminum
Color	black, similar to RAL 9017
Weight	approx. 0.9 kg
Dimensions	W: 130 mm H: 120 mm D: 74 mm

 Only compatible with DLI-130/230 ANA and LFI-350/450

Features

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





Passive Beam Steering Systems

LEN-20	110
LEN-60	111
LEN-100	112
LEN-150	113
LEN-220	114

582650.B

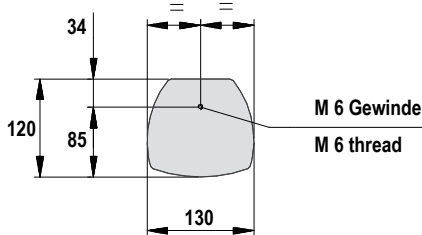
Linea LEN-20 EN 54-24, black

NEW

Passive 100 V loudspeaker, with weatherproof aluminium housing, designed for use with voice alarm systems - certified according to EN 54-24, Type B, equipped with two high-quality 4" drivers with treated cones for optimum efficiency in speech and voice alarms.

Technical Data

SPL Pmax / 1 m	104 dB
Dispersion angle	130° (H) x 60° (V) nominal; 360° (H) x 360° (V) @ 500 Hz; 190° (H) x 120° (V) @ 1000 Hz; 120° (H) x 60° (V) @ 2000 Hz; 95° (H) x 30° (V) @ 4000 Hz
Housing	weatherproof aluminium housing, powder coated, steel bracings
Color	black, similar to RAL 9005, powder-coated
Weight	approx. 3 kg
Dimensions	W: 130 mm H: 230 mm D: 120 mm



Accessories

582613.B

Wall mount WAL-03, black

Features

- EN 54-24 certified, 100 V loudspeaker for use with voice alarm systems
- suitable for both indoor and outdoor use
- exceptionally even sound dispersion
- SIDE LOBE FREE – passive realization
- equipped with high performance speakers
- excellent speech intelligibility and sound quality
- a long reach
- weatherproof without requiring additional protection (protection class IP54 in accordance with IEC 529 / EN 60529)
- ball impact resistant front grille made from galvanised sheet steel
- ultra-compact, low weight

582650.W

Linea LEN-20 EN 54-24, white

NEW

Same as 582650.B, but white.

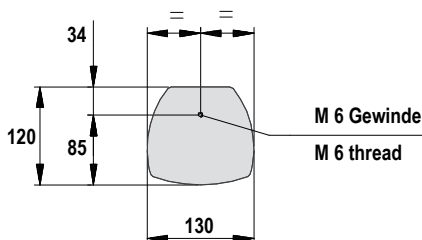
Technical Data

Color	white, similar to RAL 9016, powder-coated
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Accessories

582613.W

Wall mount WAL-03, white



582652.B

Linea LEN-60 EN 54-24, black

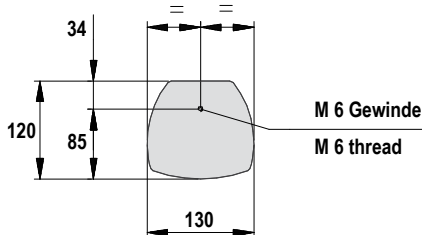
NEW



Passive 100 V loudspeaker, with weatherproof aluminium housing, designed for use with voice alarm systems - certified according to EN 54-24, Type B, equipped with two high-quality 4" drivers with treated cones for optimum efficiency in speech and voice alarms.

Technical Data

SPL Pmax / 1 m	112 dB
Dispersion angle	130° (H) x 25° (V) nominal; 360° (H) x 90° (V) @500 Hz; 190° (H) x 40° (V) @ 1000 Hz; 120° (H) x 25° (V) @ 2000 Hz; 95° (H) x 13° (V) @ 4000 Hz
Housing	weatherproof aluminium housing, powder coated, steel bracings
Color	black, similar to RAL 9005, powder-coated
Weight	approx. 7.5 kg
Dimensions	W: 130 mm H: 640 mm D: 120 mm



Accessories

582614.B

Wall mount WLX-100, black

Features

- EN 54-24 certified, 100 V loudspeaker for use with voice alarm systems
- suitable for both indoor and outdoor use
- exceptionally even sound dispersion
- SIDE LOBE FREE – passive realization
- equipped with high performance speakers
- excellent speech intelligibility and sound quality
- a long reach
- weatherproof without requiring additional protection (protection class IP54 in accordance with IEC 529 / EN 60529)
- ball impact resistant front grille made from galvanised sheet steel

582652.W

Linea LEN-60 EN 54-24, white

NEW



Same as 582652.B, but white.

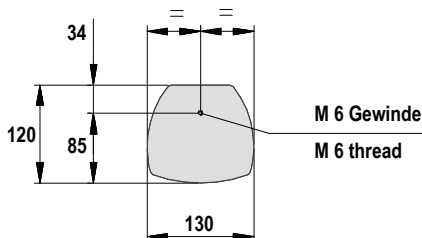
Technical Data

Color	white, similar to RAL 9016, powder-coated
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Accessories

582614.W

Wall mount WLX-100, white



582654.B

Linea LEN-100 EN 54-24, black

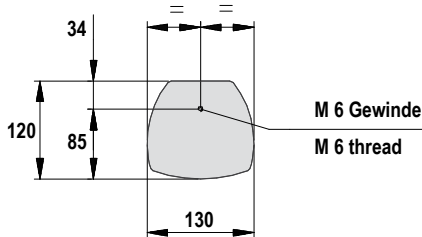
NEW



Passive 100 V loudspeaker, with weatherproof aluminium housing, designed for use with voice alarm systems - certified according to EN 54-24, Type B, equipped with two high-quality 4" drivers with treated cones for optimum efficiency in speech and voice alarms.

Technical Data

SPL Pmax / 1 m	114 dB
Dispersion angle	130° (H) x 15° (V) nominal; 360° (H) x 55° (V) @500 Hz; 190° (H) x 25° (V) @ 1000 Hz; 120° (H) x 15° (V) @ 2000 Hz; 95° (H) x 8° (V) @ 4000 Hz
Housing	weatherproof aluminium housing, powder coated, steel bracings
Color	black, similar to RAL 9005, powder-coated
Weight	approx. 9.5 kg
Dimensions	W: 130 mm H: 990 mm D: 120 mm



Accessories

582614.B

Wall mount WLX-100, black

Features

- EN 54-24 certified, 100 V loudspeaker for use with voice alarm systems
- suitable for both indoor and outdoor use
- exceptionally even sound dispersion
- SIDE LOBE FREE – passive realization
- equipped with high performance speakers
- excellent speech intelligibility and sound quality
- a long reach
- weatherproof without requiring additional protection (protection class IP54 in accordance with IEC 529 / EN 60529)
- ball impact resistant front grille made from galvanised sheet steel

582654.W

Linea LEN-100 EN 54-24, white

NEW



Same as 582654.B, but white.

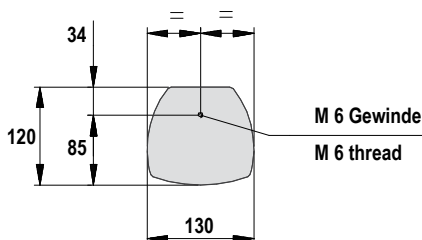
Technical Data

Color	white, similar to RAL 9016, powder-coated
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Accessories

582614.W

Wall mount WLX-100, white



582657.B

Linea LEN-150 EN 54-24, black

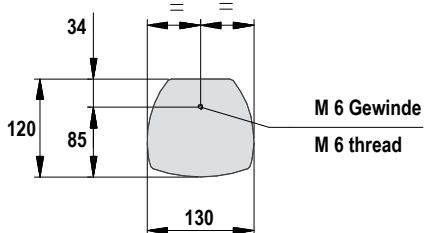
NEW



Passive 100 V loudspeaker, with weatherproof aluminium housing, designed for use with voice alarm systems - certified according to EN 54-24, Type B, equipped with two high-quality 4" drivers with treated cones for optimum efficiency in speech and voice alarms.

Technical Data

SPL Pmax / 1 m	118 dB
Dispersion angle	130° (H) x 14° (V) nominal; 360° (H) x 35° (V) @500 Hz; 190° (H) x 20° (V) @ 1000 Hz; 120° (H) x 14° (V) @ 2000 Hz; 95° (H) x 8° (V) @ 4000 Hz
Housing	weatherproof aluminium housing, powder coated, steel bracings
Color	black, similar to RAL 9005, powder-coated
Weight	approx. 14.5 kg
Dimensions	W: 130 mm H: 1460 mm D: 120 mm



Accessories

582614.B

Wall mount WLX-100, black

Features

- EN 54-24 certified, 100 V loudspeaker for use with voice alarm systems
- suitable for both indoor and outdoor use
- exceptionally even sound dispersion
- SIDE LOBE FREE – passive realization
- equipped with high performance speakers
- excellent speech intelligibility and sound quality
- a long reach
- weatherproof without requiring additional protection (protection class IP54 in accordance with IEC 529 / EN 60529)
- ball impact resistant front grille made from galvanised sheet steel

582657.W

Linea LEN-150 EN 54-24, white

NEW



Same as 582657.B, but white.

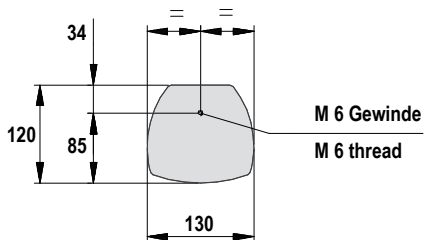
Technical Data

Color	white, similar to RAL 9016, powder-coated
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Accessories

582614.W

Wall mount WLX-100, white



582660.B

Linea LEN-220 EN 54-24, black

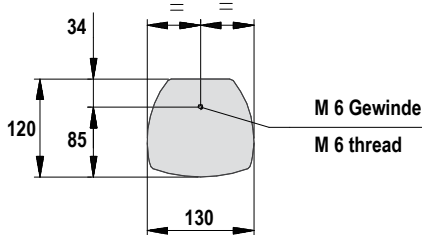
NEW



Passive 100 V loudspeaker, with weatherproof aluminium housing, designed for use with voice alarm systems - certified according to EN 54-24, Type B, equipped with two high-quality 4" drivers with treated cones for optimum efficiency in speech and voice alarms.

Technical Data

SPL Pmax / 1 m	120 dB
Dispersion angle	130° (H) x 14° (V) nominal; 360° (H) x 55° (V) @500 Hz; 190° (H) x 15° (V) @ 1000 Hz; 120° (H) x 14° (V) @ 2000 Hz; 95° (H) x 8° (V) @ 4000 Hz
Housing	weatherproof aluminium housing, powder coated, steel bracings
Color	black, similar to RAL 9005, powder-coated
Weight	approx. 19.5 kg
Dimensions	W: 130 mm H: 2200 mm D: 120 mm



Accessories

582614.B

Wall mount WLX-100, black

Features

- EN 54-24 certified, 100 V loudspeaker for use with voice alarm systems
- suitable for both indoor and outdoor use
- exceptionally even sound dispersion
- SIDE LOBE FREE – passive realization
- equipped with high performance speakers
- excellent speech intelligibility and sound quality
- a long reach
- weatherproof without requiring additional protection (protection class IP54 in accordance with IEC 529 / EN 60529)
- ball impact resistant front grille made from galvanised sheet steel

582660.W

Linea LEN-20 EN 54-24, white

NEW



Same as 582660.B, but white.

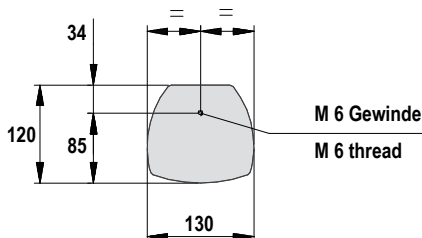
Technical Data

Color	white, similar to RAL 9016, powder-coated
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Accessories

582614.W

Wall mount WLX-100, white





Ex Signalling Devices

Acoustical devices

116

Optical devices

117

582500

15 W ATEX Horn Loudspeaker



Features

- EEx d IIC T4 / EEx de IIC T4
- KEMA certified
- ATEX approval, optionally IEC and GOST approvals
- Housing made of die-cast aluminum LM6, horn ABS
- Categories 2G and 3G (Zones 1 and 2)
- Chromated polyester powder coating, resistant to moisture and salt spray, good resistance to most acids, alkalis and oils

High performance 15 W horn loudspeaker for acoustic signaling wherever explosive gases, vapors and dusts can become dangerous.

The Ex-series acoustic signaling devices stand out with their particularly sturdy construction and insensitivity to environmental influences and chemicals.

Technical Data

Explosion protection	II 2G Ex de IIC T4
Operating voltage	100 V DC
Ambient temperature	-50 °C ... 70 °C
Storage temperature	-50 °C ... 70 °C
Air humidity	< 90 %
Type of protection	IP66
Housing	Die cast aluminum
Material	plastic, aluminium U bracket
Color	red, similar to RAL 3000
Weight	approx. 0 g approx. 8 kg

582501

25 W ATEX Horn Loudspeaker



Features

- EEx d IIC T4 / EEx de IIC T4
- KEMA certified
- ATEX approval, optionally IEC and GOST approvals
- Housing made of die-cast aluminum LM6, horn ABS
- Categories 2G and 3G (Zones 1 and 2)
- Chromated polyester powder coating, resistant to moisture and salt spray, good resistance to most acids, alkalis and oils

High performance 25 W horn loudspeaker for acoustic signaling wherever explosive gases, vapors and dusts can become dangerous.

The Ex-series acoustic signaling devices stand out with their particularly sturdy construction and insensitivity to environmental influences and chemicals

Technical Data

Explosion protection	II 2G Ex de IIC T4
Operating voltage	100 V DC
Ambient temperature	-50 °C ... 70 °C
Storage temperature	-50 °C ... 70 °C
Air humidity	< 90 %
Type of protection	IP66
Housing	Die cast aluminum
Material	plastic, aluminium U bracket
Color	red, similar to RAL 3000
Weight	approx. 0 g approx. 8 kg

582550

Flashing light 10 Joules



High performance flashing light for visual signaling wherever explosive gases, vapors and dusts can become dangerous.

The Ex-series acoustic signaling devices stand out with their particularly sturdy construction and insensitivity to environmental influences and chemicals.

The flashing light is ideal for almost all mounting requirements: side, ceiling and floor mounting.

Technical Data

Current consumption	660 mA
Ambient temperature	-50 °C ... 70 °C
Storage temperature	-50 °C ... 70 °C
Air humidity	< 90 %
Type of protection	IP67
Material	Aluminium, Stainless Steel
Weight	approx. 5.2 kg

582551

Flashing light 15 Joules



High performance flashing light for visual signaling wherever explosive gases, vapors and dusts can become dangerous.

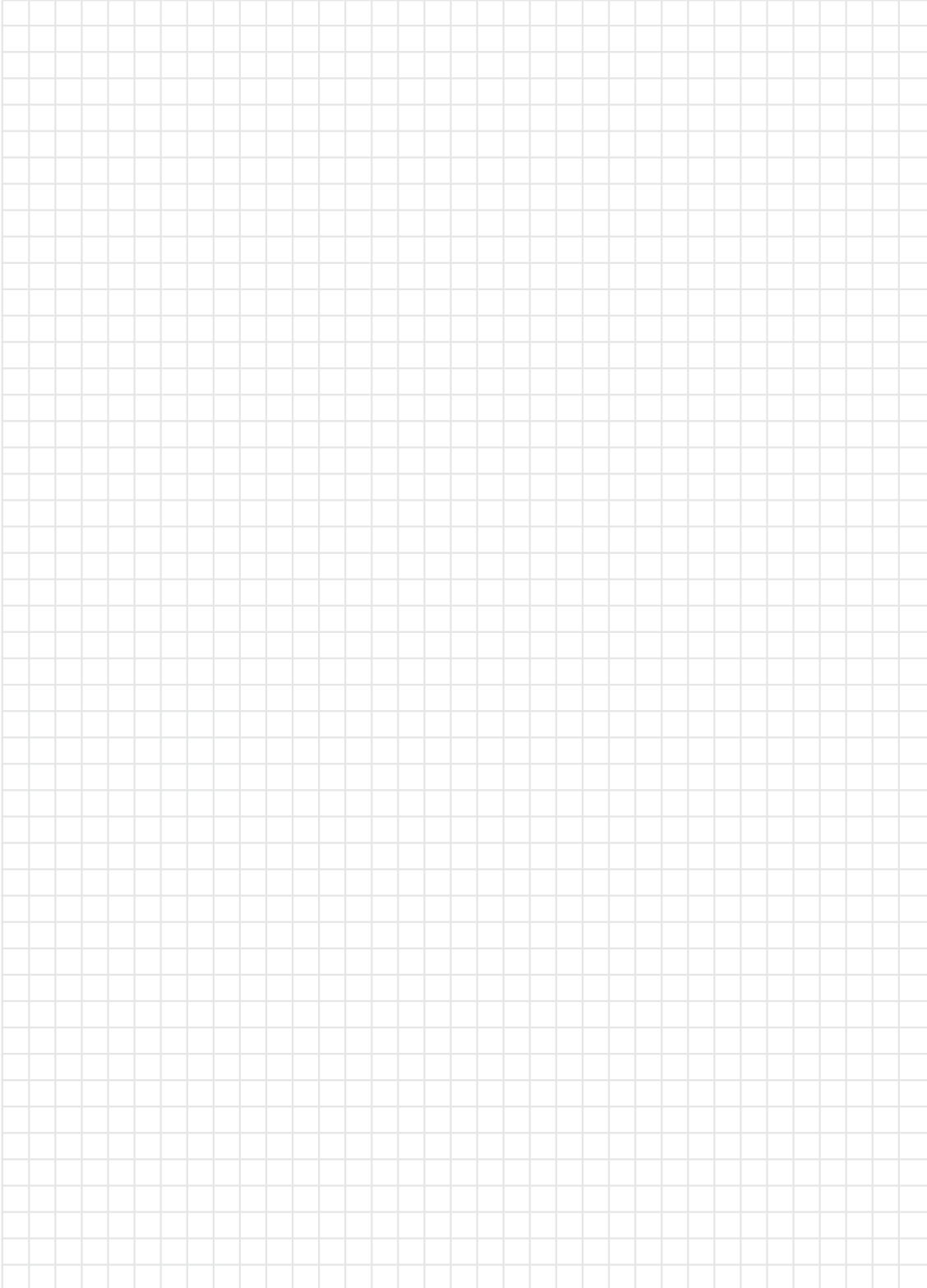
The Ex-series acoustic signaling devices stand out with their particularly sturdy construction and insensitivity to environmental influences and chemicals.

The flashing light is ideal for almost all mounting requirements: side, ceiling and floor mounting.

Technical Data

Current consumption	660 mA
Ambient temperature	-50 °C ... 70 °C
Storage temperature	-50 °C ... 70 °C
Air humidity	< 90 %
Type of protection	IP67
Material	Aluminium, Stainless Steel
Weight	approx. 5.2 kg

Notes





19" Rack

VARIODYN D1 Cabinet System – w. Hinged Frame	120-121
VARIODYN D1 Cabinet System – w/o Hinged Frame	122-124
Accessories	125-127
Electrical Operating Rooms	128

19" Rack



Features

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

VARIODYN D1 Cabinet System – w. Hinged Frame

Approval: Part of EN 54-16 approval

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 price and must be ordered separately!

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 price and must be ordered separately!

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 price and must be ordered separately!

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 price and must be ordered separately!

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.

19" Rack

VARIODYN D1 Cabinet System – w/o Hinged Frame



Features

- Reversible door hinge
- Completely detachable

Approval: Part of EN 54-16 approval

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, set 550 mm for 800 mm upright cabinets

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 price and must be ordered separately!

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 price and must be ordered separately!

584913

19"- housing for VARIODYN D1 Comprio



Part of EN 54-16 approval

Housing for PA/VA 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.



Cables not included in price and must be ordered separately!

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8**
- 9

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	70 kg
Dimensions	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

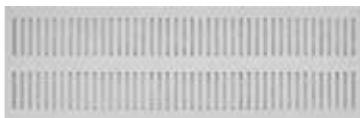
Fan cartridge, roof installation, 2 fans with thermostat



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	sheet steel 1.5 m
Color	grey, similar to RAL 7035
Dimensions	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.

 Set (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 mm² or conductors with fine wires up to 16 mm²

583703

Mounting kit 1



 Each contains 24 cage nuts, screws and washers.

583704

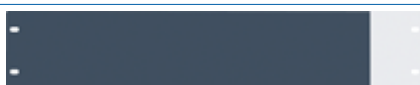
Dummy plate 2 HU



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

Dummy plate 4 HU



Dummy plate in VARIODYN D1 design with 4 HU to cover open slots in upright cabinets.

583708

Ventilation panel 1 HU (without branding)



Ventilation panel in VARIODYN D1 Design with 1 height unit and without branding.

583708.HO

Ventilation panel 1 HU (Honeywell branding)



Ventilation panel in VARIODYN D1 Design with 1 HU and with Honeywell branding.

583709

Dummy plate 4 HU (DCSF)



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

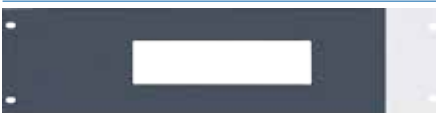
Dummy plate 4 HU (DCSF/DKM)



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. 583507 and a standard RJ11 cable is required.

583716

19" mounting set with cutout for fuse holder and circuit breaker



Due to the use of big batteries up to 150 Ah capacity in combination with our PSUs it could be in case of a short circuit up to 600 A current flow. The equivalent of this more than 15 KW power @ the short circuit. For this reason, we propose to have a fuse to prevent damage. In order to build in the fuse with holder in a proper way we developed and offer this installation kit.



Delivery time on request

Accessories

584150	Fuse holder and circuit breaker
584151	100 A Fuse for PSU 24 V – 2/4

584942

Document case for 19" cabinets

Document case in upright cabinets for storage of system documentation such as plans, protocols, etc.

584945

Heavy duty caster base for cabinets 80



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.

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)



Two heavy duty rails with rollers.

Electrical Operating Rooms



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

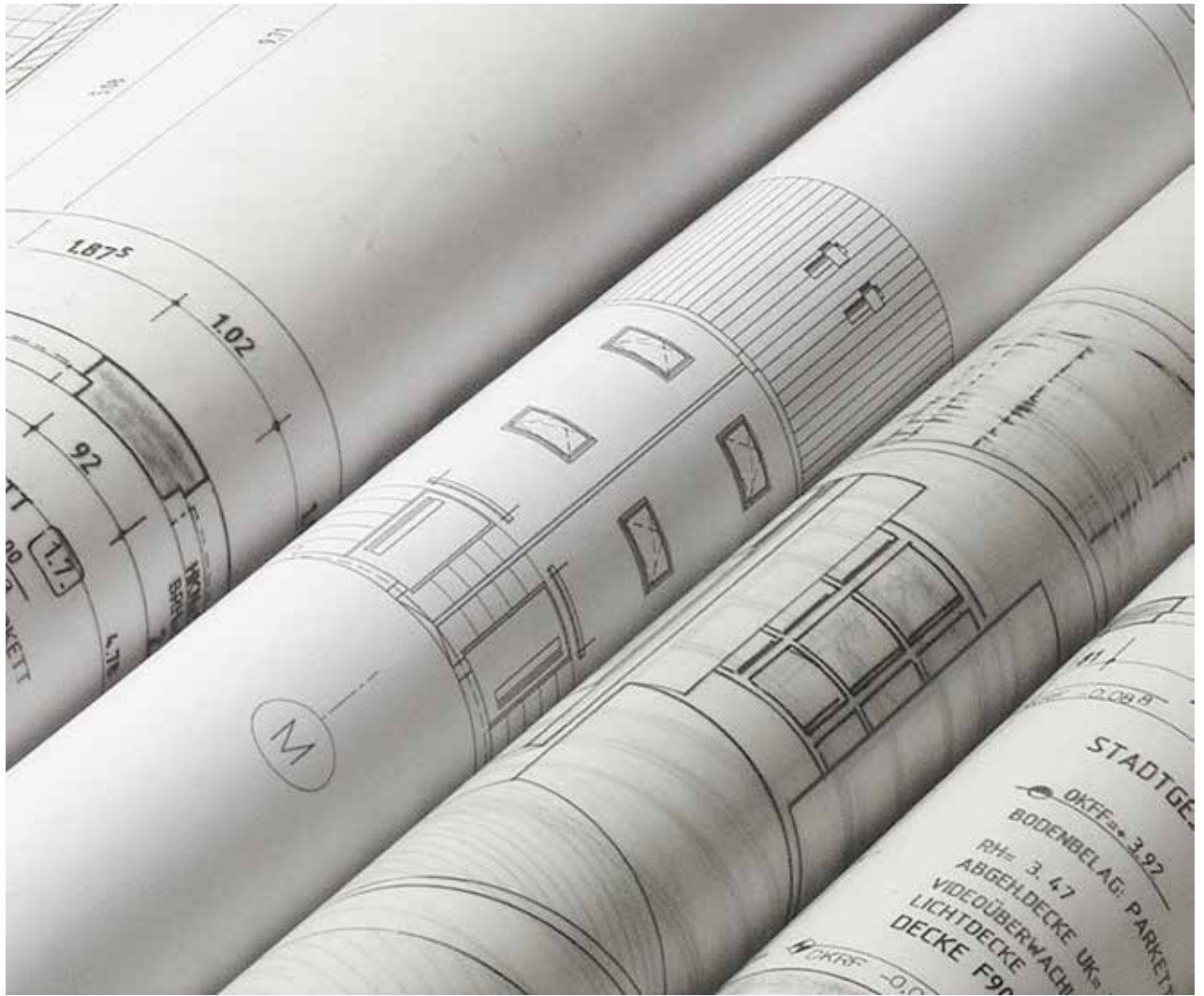
Fax: +49 6181 3640-230

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



Attachment

Part Number Index	130-131
Keyword Index	132-133
General terms and conditions	134-135

Part Number Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
580231	25	582408	76	582612.B	106	583393.11	55
580232	25	582408.FD	76	582612.W	107	583394.11	54
580242	16	582408.SAFE	77	582650.B	110	583401.21	66
580243	16	582411	76	582650.W	110	583410	68
580248.11	27	582422	79	582652.B	111	583413	18
580249.11	27	582422.10	79	582652.W	111	583414	18
580261	27	582423	80	582654.B	112	583422.21	22
580262	28	582424	81	582654.W	112	583430	22
581215	95	582425	80	582657.B	113	583431	22
581258	93	582426	81	582657.W	113	583432	22
581263	90	582428	81	582660.B	114	583441	66
581270	91	582432	82	582660.W	114	583441.10	18
581271	94	582433	83	582670.B	102	583444	66
581272	94	582452	88	582670.W	102	583444.10	66
581274	90	582453	88	582671.B	103	583451.21	67
581275	91	582460	86	582671.W	103	583452.21	67
581276	91	582461	86	583307	38	583466A	68
581277	92	582470	78	583308	17	583467A	68
581286	96	582473	84	583311	38	583469A	68
581310	51	582474	84	583315.02	37	583471.21	67
581316	51	582475	85	583316.21	36	583472.21	67
581317	51	582476	87	583316.SM	36	583473.21	67
581320	51	582477	87	583317.21	37	583476.21	67
581321	96	582479	82	583317.SM	37	583477.21	18
581322	96	582480	75	583318	38	583481A	68
581323	96	582500	116	583331.21	44	583482A	68
581329	52	582501	116	583332	44	583483A	68
581340	69	582550	117	583341.21	46	583486A	68
581721	48	582551	117	583342	24	583487A	68
581722	47	582602.B	104	583351	45	583488A	68
581723	47	582602.W	104	583361.22	8	583489	68
581724	48	582603.B	105	583362.22	9	583490	68
581725	48	582603.W	105	583369	22	583491A	18
581730	17	582604.B	107	583371.21	41	583492	68
581731	49	582604.W	107	583381.31	43	583496	52
581732	17	582610.B	106	583386.21	52	583501.RE	30
582402	74	582610.W	106	583390	53	583502.RE	31
582403	74	582611.B	106	583391	53	583503.RE	32
582406	75	582611.W	106	583392.11	54	583504.RE	33

Part Number Index

Part No.	Page	Part No.	Page	Part No.	Page
583505.RE	33	584901.R	120	586101	39
583506	31	584902	120	586102	39
583507	38	584902.R	120	586103	40
583515	65	584903	121	586104	40
583520	29	584903.R	121	586115	55
583526	29	584910	122	586116	55
583529	31	584910.R	122	772386	59
583531	56	584911	122	781336	60
583534	56	584911.R	122	784840.10	59
583535	50	584913	17	784841.10	59
583560	40	584913.R	17	784856	59
583565	40	584921	121	788603.10	50
583651	63	584922	121	788606	59
583652	63	584923	124	805683	60
583653	64	584924	121	FX808338	58
583703	126	584925	125	HN-32N	51
583704	126	584926	124	LSC-506	72
583705	126	584929	124	LSC-506.LIM	72
583706	126	584930	124	LSC-606	73
583707	127	584931	125	LSC-606/DC	73
583708	127	584932	125	X-MAP04	46
583708.HO	127	584933	124		
583709	127	584937	125		
583710	127	584938	126		
583716	49	584939	126		
583940	11	584940	126		
583941	12	584942	127		
583944	14	584945	127		
583945	15	584946	126		
583946	13	584947	125		
583947	13	584948	125		
583948	13	584949	125		
583949	13	584960	34		
584100	58	584961	34		
584101	58	584962	35		
584102	58	584963	35		
584900	120	584970	42		
584900.R	120	584971	42		
584901	120	586100	39		

Keyword Index

Keyword	Page	Keyword	Page
A			
Adapter TWI-RS232	52	Dynamic hand-held microphone	39
Alarm transponder VARIODYN D1	50	Dynamic Microphone with Gooseneck	40
Angle sliding rail (Set) 250 mm for swing frame	121	E	
Audio-connection cable length 1.8 m	68	Electronically steerable line source speaker DLI-130 ANA HB	102
B			
Backup cable RC 22 VARIODYN D1	22	Electronically steerable line source speaker DLI-130 ANA HW	102
Backup cable RC 41 VARIODYN D1, 0.5 m	18	Electronically steerable line source speaker DLI-230 ANA HB	103
Backup cable RC 41 VARIODYN D1, 2 m	66	Electronically steerable line source speaker DLI-230 ANA HW	103
Backup cable RC 44 VARIODYN D1, 0.5 m	66	Electronically steerable line source speaker LFI-350 ANA HB	104
Backup cable RC 44 VARIODYN D1, 2 m	66	Electronically steerable line source speaker LFI-350 ANA HW	104
Battery 12 V / 65 Ah	17	Electronically steerable line source speaker LFI-450 ANA HB	105
Battery for emergency power supply 12 V / 105 Ah	17	Electronically steerable line source speaker LFI-450 ANA HW	105
Battery for emergency power supply 12 V/150 Ah	49	Emergency power supply PSU 24 V-4 net	48
C			
Cable clamp rail DOM	121	Emergency power supply 24 V / 150 A	48
Cable clamping rail set, 2 HU	121	Emergency power supply PSU 24 V-2	47
Cable for cabinet rear panel DOM4-24	67	Emergency power supply PSU 24 V-2 net	48
Cable for cabinet rear panel DOM4-8	67	Emergency power supply PSU 24 V-4	47
Cable set 24 V DC VARIODYN D1 Comprio 4XD	18	Enclosure for a firefighter paging microphone DCSF	34
Cable set for connecting batteries to VARIODYN D1 4XDxxxB amplifier	18	Enclosure for one firefighter paging microphone and one DKM	35
CAT5 patch cable, 0,5 m green (DOM to amplifier)	18	End-of-Line module EOL	52
CAT5 patch cable, 0.5 m gray (Periphery)	68	Equipotential bonding system	126
CAT5 patch cable, 1 m blue (DAL)	68	essernet module, 500 kBd for IQ8Control	59
CAT5 patch cable, 1 m gray (Periphery)	68	essernet module, 62.5 kBd for IQ8Control	59
CAT5 patch cable, 1 m yellow (Ethernet)	68	Expansion housing with 2 DIN rails	58
CAT5 patch cable, 2 m blue (DAL)	68	External power supply DCU 2403	60
CAT5 patch cable, 2 m yellow (Ethernet)	68	Extron media control module	65
CAT5 patch cable, 3 m blue (DAL)	68	F	
CAT5 patch cable, 3 m gray (Periphery)	68	Fan cartridge, roof installation, 2 fans with thermostat	125
CAT5 patch cable, 3 m yellow (Ethernet)	68	Fiber Optic module for FO Switch, multimode	54
Ceramic terminal and thermal fuse	96	Fiber Optic module for FO Switch, single mode	55
Compartment base 2 HU	126	Fibre Optic Switch for Ethernet ring	54
Connection Board	22	Filtration box (600 mm) , PU 2 pieces	125
Connection cable battery -PSU	68	Filtration box (800 mm), PU 2 pieces	125
Connector Set	126	FIOS mounting kit for DCSF1/12 call station	34
Contact Interface Module CIM	46	Fire Brigade Call Station DCSF7	33
Contacteur 3x25 A	42	Fire dome for ceiling speaker Part No. 582408	76
Control cable 12 for UIM	66	Flashing light 10 Joules	117
D			
DC/DC converter output voltage 12 V DC	60	Flashing light 15 Joules	117
Desktop call station with pre chime DIGIM4	40	Flush-mount volume control 12 W	96
Desktop microphone with pre chime DIGIM1	39	Flush-mount volume control 50 W	96
Digital Call Station DCS plus	29	Flush-mount volume control 6 W	96
Digital Call Station DCS15 redundant	30	Flush-mounted XLR panel jack	51
Digital Call Station DCS2 redundant	31	Four-channel amplifier 4XD125B	16
Digital firefighter microphone DCSF1 redundant	33	Four-channel amplifier 4XD250B	16
Digital firefighter microphone DCSF12 redundant	32	Four-channel amplifier 4XD300	27
Digital Key Module DKM plus	29	Four-channel amplifier 4XD500	27
Digital Key Module DKM18 for redundant call stations	31	Four-channel amplifier 4XV300	27
Digital Output Module DOM4-24	9	Four-channel amplifier 4XV500	28
Digital Output Module DOM4-8	8	H	
Document case for 19" cabinets	127	Hand-held microphone for VARIODYN D1 Comprio	17
Document compartment 2 HU	125	Heavy duty caster base for cabinets 80	127
Door contact switch with power cable for lamp	125	Housing for SEI	59
Doormaster-Smart-PAL-Telephone interface	55	I	
Dummy plate 2 HU	126	Input cable DOM (G1) – amplifier (as of G2)	67
Dummy plate 3 HU	126	Input cable DOM (G1) - XV amplifier (G1)	67
Dummy plate 4 HU	127	Installation kit for redundant DCS	38
Dummy plate 4 HU (DCSF)	127	Interface module RS232 / 24 V	59
Dummy plate 4 HU (DCSF/DKM)	127	Interface module, black	107
DVD/CD/MP3/FM/AM audio player	46	Interface module, white	107
K			
		Key cap	38
		Keyboard cover for DCS plus und DKM plus	31
		Keyboard cover for DCS VARIODYN D1 call station	38

Keyword Index

Keyword	Page
L	
Leveling feet for upright cabinets or 19" housing	126
L-form cable binding strip for cabinets, depth 800 mm	124
Linea LEN-100 EN 54-24, black	112
Linea LEN-100 EN 54-24, white	112
Linea LEN-150 EN 54-24, black	113
Linea LEN-150 EN 54-24, white	113
Linea LEN-20 EN 54-24, black	110
Linea LEN-20 EN 54-24, white	110
Linea LEN-220 EN 54-24, black	114
Linea LEN-60 EN 54-24, black	111
Linea LEN-60 EN 54-24, white	111
Loop Isolator Module LIM	24
LWL converter for DCS multi mode	37
LWL converter for DCS single mode	37
LWL converter multi mode	36
LWL converter single mode	36
M	
Mains Switching Unit MSU	41
Master clock SC 98.47 pro	53
Measuring microphone for D1 AVC in a 5" recessed ceiling housing	51
Microphone P4, for AVC	51
Module housing for top-hat mounting rail	50
Mounting chassis (Set), with lateral electrical perforation	124
Mounting kit 1	126
Mounting kit for microphone P4	51
N	
Noise Detector	51
O	
Output cable 2 amplifier DOM	18
Output cable amplifier 1-24	22
Output cable amplifier DOM	67
Output cable DOM - Amp. 1/18	22
Output cable DOM - Amp. 2/12	22
Overvoltage protection for UIM contacts	44
P	
Paging microphone station for external microphone DIGIM1WH	39
PAMMI Plus client	63
PAMMI Plus PA server	63
PAMMI Plus server/client	64
PC Touch Screen Call Station	40
Peripheral clip for top hat rail	69
Power amplifier 2XD250	25
Power amplifier 2XD400	25
Power supply for LWL converter	37
Power supply for telephone interface	55
Product package Comprio 4-24 and amplifier 4XD125B	13
Product package Comprio 4-24 and amplifier 4XD250B	13
Product package Comprio 4-8 and amplifier 4XD125B	13
Product package Comprio 4-8 and amplifier 4XD250B	13
Profile half-cylinder with standard closure	35
PSE (PoE Injector 802.3af) for 583531	56
S	
SEI serial ethernet interface EDP, bidirectional	59
Sliding rail set 800 mm	124
Spare filter mats (600 mm or 800 mm), PU 10 pieces	125
Surface mount box	52
Surge voltage protection for Ethernet or DAL bus	58
Surge voltage protection module for connection to the mains	58
Surge voltage protection module for loudspeaker cables	58

Keyword	Page
System Communication Unit SCU	43
U	
Under Voltage and neutral supervision module	42
Universal Interface Module UIM	44
UP-box for DIGISystem desktop paging microphone DIGIST09	40
Upright cabinet with hinged frame 24 HU	120
Upright cabinet with hinged frame 24 HU - 600 mm deep	120
Upright cabinet with hinged frame 24 HU - 600 mm deep (incl. assembly)	120
Upright cabinet with hinged frame 24 HU (incl. assembly)	120
Upright cabinet with hinged frame 40 HU	120
Upright cabinet with hinged frame 40 HU - 600 mm deep	121
Upright cabinet with hinged frame 40 HU - 600 mm deep (incl. assembly)	121
Upright cabinet with hinged frame 40 HU (incl. assembly)	120
Upright cabinet without hinged frame 26 HU	122
Upright cabinet without hinged frame 26 HU (incl. assembly)	122
Upright cabinet without hinged frame 42 HU	122
Upright cabinet without hinged frame 42 HU (incl. assembly)	122
V	
VARIODYN D1 Comprio 4-24 (Stand alone without Ethernet)	12
VARIODYN D1 Comprio 4-24 net (with Ethernet)	15
VARIODYN D1 Comprio 4-8 (Stand alone without Ethernet)	11
VARIODYN D1 Comprio 4-8 net (with Ethernet)	14
Ventilation panel 1 HU (Honeywell branding)	127
Ventilation panel 1 HU (without branding)	127
View Control Module VCM	45
VoIP- or ISDN transmission device	56
W	
WAL-1W, wall brackets for WAL-1W, wall brackets for LFI-120/220HB	106
WAL-1W, wall brackets for WAL-1W, wall brackets for LFI-120/220HW	106
Wall-surface mount terminal box for DCS	38
Wheels for upright cabinet, with brake	124
Wireless receiver FU 20.00 pro	53
WLF-1B, wall bracket for DLI-130/230 XXX HB, LFI-350/450 HB	106
WLF-1B, wall bracket for DLI-130/230 XXX HB, LFI-350/450 HW	106
WLF-2B, wall bracket for DLI-130/230 XXX HB, LFI-350/450 HB	106
WLF-2B, wall bracket for DLI-130/230 XXX HB, LFI-350/450 HW	107
X	
XLR cable 1 m, plug jack length 1 m	68
XLR cable 10 m, plug jack length 10 m	68

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 outside of the territory of the Federal Republic of Germany.

1. SOLE TERMS.

Novar's sale is expressly limited to the terms herein and refers to all goods sold and services provided by Novar. 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.

- 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.
- Content and scope of the supply are determined exclusively on the basis of Novar's written quotation and order confirmation.
- 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.
- 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.
- 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.
- Prices are EX WORKS 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.
- All tooling, designs, drawings, and other intellectual property produced or delivered hereunder are owned by Novar.
- 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.

- 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.
- 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.
- 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.
- Invoices remaining unpaid after their due date will be subject to an interest charge at the rate of 5% above the base lending rate published by the European Central Bank from time to time per annum, 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.

- Novar will use all reasonable endeavours to effect delivery by the delivery date(s) stated in the contract or in any estimate of delivery time provided by Novar, but time is not of the essence in this regard. In any event, should delivery be delayed by any act, omission or delay on the part of the Buyer Novar is entitled to an extension of time.
- Buyer or its representative, who arranges for the goods to be collected from Novar's premises and then has them exported to a place outside the European Community Member States, shall provide Novar with valid evidence of export complying with the applicable VAT regulations within three months of the date shown on the accompanying sales invoice. In case of delivery of goods to foreign-going vessels and aircraft, Buyer shall provide Novar with a receipt duly signed by or on behalf of Buyer confirming delivery of the goods on board the ship or aircraft. Should Buyer fail to provide said evidence of export or receipt in time, Novar reserves the right to invoice subsequently and collect any value added tax deemed to be due and any fines or penalties that may be due in respect of the late payment of VAT.
- 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.
- Novar may demand an appropriate extension of the delivery date in the event of sub-optimal changes agreed.
- 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.
- Buyer must inspect all goods upon delivery without undue delay and must report i) obvious defects, transport damages (if Novar arranges the transport for the Buyer), 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 7 c).
- 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.
- 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.
- If Buyer is overdue in paying the price Novar may recover the goods or any of them and for that purpose Buyer hereby grants Novar permission to enter the Buyer's premises and, if necessary, detach the goods from other goods or equipment.

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.

- 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.
- 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.

7. TERMINATION, RETURN OF GOODS.

- 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 pro-rated expenses and anticipated profits consistent with industry standards.
- Novar may terminate a Buyer's purchase order in whole or in part upon Buyer's breach of these terms and conditions or if Buyer makes any voluntary arrangement with its creditors, becomes subject to an administration order, becomes bankrupt or goes into liquidation (otherwise than for the purpose of amalgamation or reconstruction) or if any encumbrancer takes possession, or a receiver is appointed, of any of the property or assets of the Buyer, or if Buyer takes or suffers any similar action in consequence of a debt, or if Buyer ceases, or threatens to cease, to carry on business, with immediate effect and without liability to the Buyer.
- 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.

- 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.
- 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 non-exclusive, 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.
- 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.
- 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.
- 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 section 8 is in lieu of and replaces any other expressed, implied, or statutory warranty against infringement.

9. WARRANTY.

- 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.
- Except as otherwise expressly provided in respect of any particular goods, 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. Warranty for spare parts is limited to 12 months from delivery.
- 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 transportation prepaid to Novar will be repaired or replaced, at Novar's option, and return-shipped lowest cost, transportation prepaid. Novar shall have no further liability to Buyer.
- Repaired or replaced goods shall be warranted for the remainder of the unused warranty term or for 90 days from shipment, whichever is longer.
- It is Buyer's responsibility to ensure that the Goods are fit for the application in which they are used.
- 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 9 b) 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.
- 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.
- The above warranty is subject to the following conditions:
 - Novar shall be under no liability in respect of any defect in the goods arising from any drawing, design or specification supplied by Buyer.
 - Novar shall be under no liability in respect of any defect arising from fair wear and tear, contamination, willful damage, negligence, incorrect movement, improper installation, neglect, failure to follow Novar's instructions (whether oral or in writing), operation in environmental conditions outside specified safe operating extremes, misuse or modification or repair of the goods without Novar's approval.

(iii) Novar shall be under no liability in respect of any defect or failure of the goods to operate in accordance with the specifications, illustrations, description and other particulars in Novar's literature and/ or due to the fact that Buyer combines or uses the goods with any incompatible equipment or ancillary products that may be connected to the goods.

(iv) Novar shall be under no liability in respect of any defect or failure of the goods to operate due to the Buyer's failure to apply required or recommended updates or patches to any software or device in the goods network environment.

i) Novar reserves the right to charge its regular charges if inspection does not disclose a defect within the terms of this warranty.

j) Novar does not represent or warrant that the goods may not be compromised or circum-vented 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 transfer-able. l) Additional warranty terms for specific goods may apply.

10. LIMITATION OF LIABILITY.

a) In no event shall either party be liable for (i) any indirect, incidental, consequential loss; (ii) any loss arising from business interruption; (iii) loss of profits; (iv) loss of revenue; (v) loss of use of any property or capital; (vi) loss of anticipated savings; or (vii) loss of data. Neither party shall be liable for any loss or damage where that liability arises as a result of their knowledge (whether actual or otherwise) of the possibility of any such loss or damage.

b) Novar's liability in respect of any order or otherwise under these terms and conditions (including for any cybersecurity event) shall in no case exceed the contract price of the specific goods that give rise to the claim.

c) These exclusions and limitations on damages shall apply regardless of how the loss or damage may be caused and against any theory of liability, whether based in contract, tort, indemnity or otherwise.

d) Neither party seeks to exclude or restrict its liability for: (i) death or personal injury resulting from negligence; (ii) fraud; or (iii) any matter in respect of which, by law, it is not permitted to restrict its liability.

e) Buyer acknowledges that Novar has no obligation to provide any form of cybersecurity or data protection relating to the operation of the goods, software or the network environment. Novar may provide internet based services with the goods. It may change or cancel those services at any time. Novar has no obligation to provide any form of cybersecurity or data protection relating to such internet based services.

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 14 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 Switzerland. 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 courts of Zurich shall have exclusive jurisdiction for any disputes relating to the contract which is not resolved by the parties.

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. BUYER'S OBLIGATIONS RELATING TO CYBERSECURITY EVENT

a) In order to facilitate Novar's investigation of any cybersecurity event involving the goods or software, Buyer agrees to cooperate with Novar in any investigation, litigation, or other action, as deemed necessary by Novar to protect its rights relating to a cybersecurity event.

b) Novar does not represent that the goods or software is compatible with any specific third party hardware or software other than as expressly specified by Novar. Buyer is responsible for providing and maintaining an operating environment with at least the minimum standards specified by Novar. Buyer understands and warrants that Buyer has an obligation to implement and maintain reasonable and appropriate security measures relating to the goods or software, the information used therein, and the network environment. This obligation includes complying with applicable cybersecurity standards and best industry practices including those recommended by any national institutions in the Buyer's territory. If a cybersecurity event occurs, Buyer shall promptly notify Novar of the cybersecurity event. Buyer shall promptly use its best efforts to detect, respond and recover from such a cybersecurity event. Buyer shall take reasonable steps to immediately remedy any cybersecurity event and prevent any further cybersecurity event at Buyer's expense in accordance with applicable laws, regulations, and standards. Buyer further agrees that Buyer will use its best efforts to preserve forensic data and evidence in its response to a cybersecurity event. Buyer will provide and make available this forensic evidence and data to Novar.

c) Novar shall not be liable for damages caused by a cybersecurity event resulting from Buyer's failure to comply with these terms or Buyer's failure to maintain reasonable and appropriate security measures.

d) Buyer agrees to comply with all applicable data security laws and standards, and shall indemnify and hold Novar harmless for Buyer's failure to comply.

18. MISCELLANEOUS.

a) The parties may exchange confidential information during the performance or fulfillment of any supply. Confidential information includes any information or data that are provided by one party (the disclosing party) to the other party (the receiving party) in any form, including any information or data relating to the operation or performance of products and all data generated by the products which are aggregated and de-identified. However, such information or data may be used by Novar in accordance with section 18 b) below. 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, trade-marks 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, and its and their employees, officers, consultants, agents, and contractors.

b) Subject to compliance with all applicable data protection laws and regulations, Novar retains the right to utilize any and all data and information that is collected, generated, processed or transmitted by or through the products and all data and information provided or transmitted to Novar regarding the operation or performance of the products in an aggregated or anonymized form for any business purpose, including product, software or service development, marketing or sales support or other analytics. To the extent that Novar does not own any such information or data, Buyer grants Novar and its affiliated companies (or shall procure for Novar and its affiliated companies the grant of) a perpetual right to use and make derivative works from such information and data for any lawful purpose.

c) Novar will process Buyer's personal data as necessary to sell the products and/or to provide the services to Buyer and to meet Novar's obligations under any purchase order and applicable law as a data processor. Novar shall process Buyer's personal data during the period of performance of any Buyer's purchase order governed by these terms and conditions and thereafter. Buyer as data controller acknowledges and agrees that Novar will share personal data with its affiliated companies and may transfer the personal data to USA, India or Mexico.

d) 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.

e) 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.

f) No representation, warranty, course of dealing, or trade usage not contained or expressly set forth herein will be binding on Novar.

g) Headings and captions are for convenience of reference only and do not alter the meaning or interpretation of these terms and conditions.

h) 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.

i) 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.

j) Provisions herein which by their very nature are intended to survive termination, cancellation, or completion of supply shall survive such termination, cancellation, or completion.

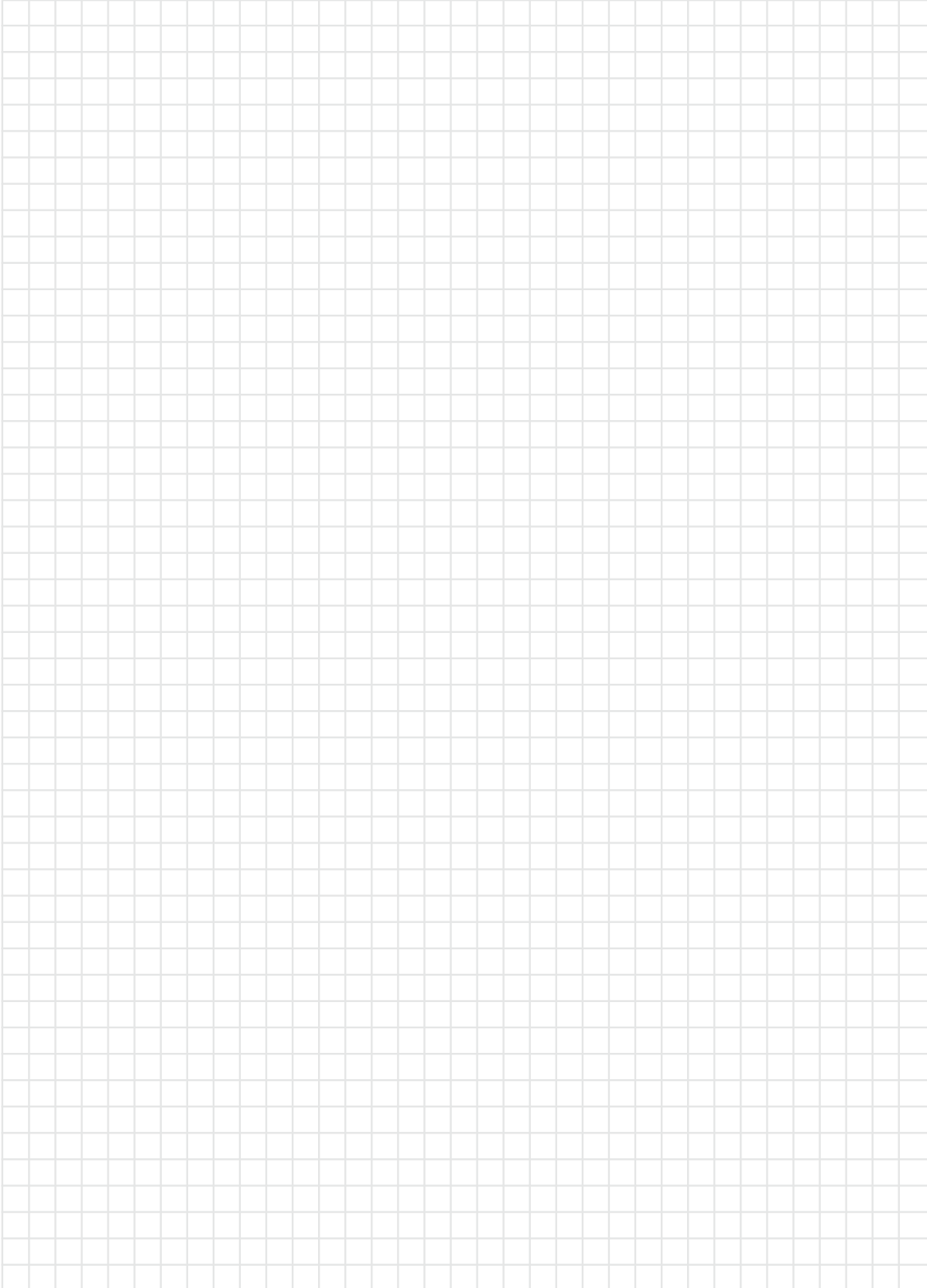
k) All stenographic and clerical errors are subject to correction.

l) These terms and conditions shall confer no benefit on any third party and no third party is entitled to enforce any provision of the contract.

19. LANGUAGE

The English language version of these terms and conditions will prevail in case of conflict with any translations provided for convenience purposes.

Neuss, July 2017



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Honeywell

054609_G0
January 2018
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