Future-proof and flexible communication

CT-ComLink® system solutions















Your partner in action

When it counts

Interference-free communication is vital in many industries. Developing communication solutions for the people who matter in these areas and for situations when it matters - CEOTRONICS has stood for this for 40 years.

Maximum flexibility. Future included.

The quality and future-proofing of CEOTRONICS products is unique. For customers, they increase work safety, boost productivity and ensure maximum efficiency, especially thanks to the customisation options to different operational scenarios.

The cross-product CT-ComLink® technology developed by CEOTRONICS

- combines state-of-the-art signal transmission with robust hardware.
- ensures maximum flexibility and modularity in the selection of headsets, radios, tactical hubs and mobile phones.
- automatically recognises connected devices and sets the optimum audio configuration in each case.
- enables the perfect interaction of all system components - even with vehicle intercom systems.

CT-ComLink® technology is at the heart of CEOTRONICS' Software Defined Products: robust hardware as the basis for software that grows with new requirements and technological progress.

Innovation in Progress

At CEOTRONICS, every new development begins with an intensive dialogue about the specific requirements of our customers. It goes without saying that the "everything from a single source" principle applies: from development and production to commissioning and beyond. In this way, we always remain your reliable partner in the field.

Current information at ceotronics.com/en



CT-CombiCom PAGE 22



CT-ActionNeckband Headset PAGE 20

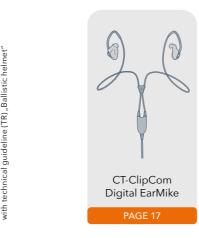


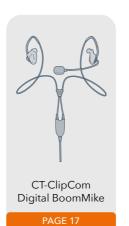
CT-ThroatMike Comfort PAGE 23



PAGE 20

CT-HN Headset1







Effective hearing protection

suitable as personal protective equipment (PPE).

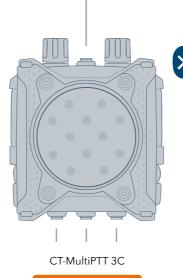


... is essential for use in very noisy environments. These CEOTRONICS products fulfil the requirements of the PPE Regulation (EU) 2016/425 (EN 352). They are therefore

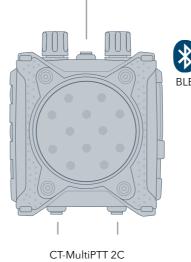


In complex operational situations, people must be able to concentrate on what really matters. The communication technology in use plays a key role here, as communication must be one thing above all: clear and secure. At all times. This is precisely why CEOTRONICS has developed the CT-ComLink® technology.

CT-ComLink® enables the perfect interaction of all system components, digital and analogue. Regardless of which headset, radio or intercom system is used - whether wired or via Bluetooth: CT-ComLink® works - now and in the future. This page provides you with an overview of the highly specialised and innovative CT-ComLink® products.





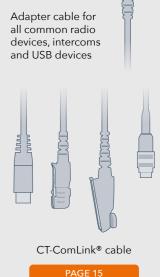


PAGE 10



CT-MultiPTT 1C/1C Plus









CT-DECT Multi PAGE 25



Smartphone



Radio

CT-DECT Case



Control units

Innovative and future-proof - these are the multifunctional control units from CEOTRONICS. These highly specialised PTT control units have been used successfully for years by the police and fire brigade, in industry and by defence forces. With the unique CT-ComLink® technology and their intuitive operability, they are the intelligent centrepieces of a complete system and guarantee secure and effective communication - whenever it matters.



control units

CT-MultiPTT 3C

The leader among the control hubs

Interference-free communication is crucial in complex operations. Those responsible for operations and their crew must be able to communicate with each other safely and effectively at all times. If this takes place via several channels - with different connected devices - intelligent solutions are required.

The user-friendly CT-MultiPTT 3C plays a key role here. In the control hub market, this multifunctional operating

and control unit is unique due to its special features. It can be used to coordinate up to four independent communication circuits - three wired and one via Bluetooth. The CT-MultiPTT 3C is able to connect both analogue and digital sources. Whether radios, tactical hubs, mobile phones or intercoms: this control hub builds a unique technological bridge between analogue and digital communication.

Features

- Large, clearly tactile front PTT primary button
- Robust and resistant: tested according to MIL-STD-810H standard and IP66 and IP67 classified
- 3. Large multifunctional rotary control with guide grooves
- 4. PTT, control and function buttons on the side (2-out-of-4 operating concept)
- 5. Headset connection
- 6. COM 1 to 3 connections



Secure communication

The combination of CT-ComLink® technology and state-of-the-art digital speech signal processing enables reliable, clean channel separation and thus prevents the effect of the unintentional or accidental crosstalk between radio channels to be kept separate.

Clever operating concepts

The interaction between user and CT-MultiPTT 3C must function simply, intuitively and safely in complex operating situations. To this end, CEOTRONICS has developed three operating concepts for different operational scenarios in close cooperation with professional users and optimised them with a view to maximising the benefits for the user. For further information, please get in touch with your personal contact: ceotronics.com/contact-us

Advantages at a glance

Secure coordination

Up to four communication circuits - analogue and digital

Remote Control

Remote function via up to three CT-WirelessPTT MIL (p. 11)

Powerful innovation

Flexible and customisable as a Software Defined Product

Intelligent technology

Automatic audio configuration and voice-guided settings menu

Durable hardware

Robust basis for continuously growing software

All inclusive

Bluetooth® module integrated directly in the housing

 $\mathbf{5}$



CT-MultiPTT 1C

The button for secure connections

Reliability is essential in the professional communication. In complex operational situations, a modern push-to-talk button has one thing above all: it works reliably. Always and under all circumstances.

The compact and robust CT-MultiPTT 1C is the first choice when it comes to intuitive control of a single wired communication circuit. Thanks to CT-ComLink® technology, it offers maximum flexibility in selection of headsets, radios or tactical hubs. As a Software Defined Product this control unit can be customised to adapt to different application scenarios. All of this also applies to the CT-MultiPTT 1C Plus.

CT-MultiPTT 1C Plus

The smart PushTWOTalk button

Wired communication plus parallel wireless Bluetooth communication is an advantage in certain situations - for example, if you want to connect a smartphone via the wireless connection.

This is why CEOTRONICS has added a plus to the proven control unit: the CT-MultiPTT 1C Plus is the Bluetooth-enhanced version of the CT-MultiPTT 1C. It works with two independent communication circuits.

Simple, safe and intuitive

The large, clearly tactile front PTT is easy to feel, even when wearing gloves. The position of the function buttons on the side offers convenient control of the volume and ambient sound reception strength when using a suitable headset or the Bluetooth functions in the CT-MultiPTT 1C Plus.

In both versions of this control unit, all basic settings or changes to the configuration can be carried out quickly, easily and intuitively. When navigating through the operating menu, the user receives feedback for the current setting as voice output. This is possible thanks to the CEOTRONICS voice menu with auditory feedback.



Advantages at a glance

Variable connections

Suitable for analogue and digital communication

Remote controlled via Bluetooth® LE

Remote function via CT-WirelessPTT MIL (p. 11)

Intelligent technology

Variable with connected devices; automatic audio configuration

Durable hardware

Robust basis for continuously growing software

Particularly economical

Very low energy requirement

Push-to-talk times two

Two independent communication circuits thanks to integrated Bluetooth® module (CT-MultiPTT 1C Plus only)

Features

- 1. Large, clearly tactile PTT button
- Robust and resistant: tested according to MIL-STD-810G standard and IP66 and IP67 classified
- 3. Bluetooth® control
- 3a. Emergency call button
- 4. Volume control and control of ambient sound reception
- Headset connection
- COM connection

 $\mathbf{8}$

Features

- Large, clearly tactile front PTT primary button
- Robust and resistant: tested according to MIL-STD-810H standard and IP66 and IP67 classified
- 3. Large multifunctional rotary control with guide grooves
- 4. PTT and function buttons on the side
- 5. Headset connection
- 6. COM 1 and 2 connections



CT-MultiPTT 2C

Two wired communication circuits

Clear communication is the key to success in the field. Often it is important not only to have a single channel of communication here, but to be involved in two parallel communication circles. It is important to avoid crosstalk between the channels at all costs.

CEOTRONICS has developed its own control unit for precisely this requirement. The CT-MultiPTT 2C offers two wired communication circuits that can be used in parallel. Both channels are clearly separated from each other by modern digital voice signal processing. CT-ComLink® technology also ensures maximum flexibility in the choice of connected devices with this control unit.

Advantages at a glance

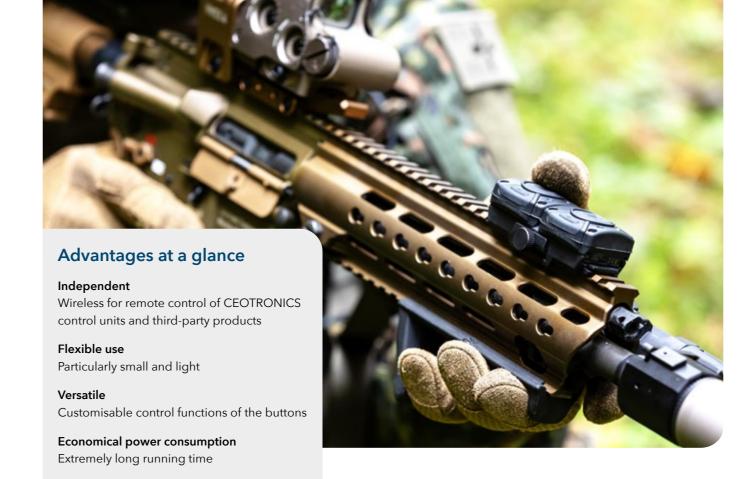
Remote controlled via Bluetooth® LE Remote function via CT-WirelessPTT MIL

Intelligent technology

Automatic audio configuration and voice-guided menu

Powerful innovation

Flexible and customisable as a Software Defined Product



CT-WirelessPTT MIL

The (sm)all-in-one controller for all situations

If no hand is free in critical situations, the wireless, remote control unit comes into play. It must fulfil the exact function assigned to it at the touch of a finger. Its buttons should always provide tactile feedback. In short: you need a small button with a wide range of applications.

The CT-WirelessPTT MIL is the operating unit that fulfils precisely these requirements. It controls all control units from the CT-ComLink® family via Bluetooth Low Energy (BLE). At the same time, BLE technology provides the basis for adapting the operating functions of the CT-WirelessPTT MIL to other products, including those from other manufacturers. These include, for example, radios, tactical hubs and PoC or PTToIP apps on mobile phones.



Features

- 1. Primary button (e.g. PTT)
- 2. Multifunction buttons
- Robust and resistant: tested according to MIL-STD-810G standard and IP66 and IP67 classified





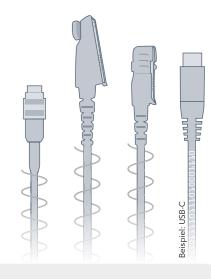
CT-ComLink® cable

In complex applications, multifunctional control hubs are required to control a variety of different audio sources (e.g. radios, smartphones or intercoms). CEOTRONICS has developed special CT-ComLink® cables so that the user-friendly CT-MultiPTTs can utilise their full potential for secure and interference-free communication.

Connections for maximum performance capability

CT-ComLink® cables are far more than just a connection between two devices. As an elementary component of every CT-ComLink® system, they recognise the functions of headsets and audio devices and transmit this data to the CEOTRONICS control units, which automatically adapt the optimum settings for the user based on the information transmitted.

CT-ComLink® cables therefore activate the maximum performance of the CT-MultiPTTs and contribute significantly to the perfect interaction of all system components.



Advantages

Unique technological bridge

CT-ComLink® cables can be used to connect both analogue and digital sources to CT-MultiPTTs (including existing devices)

Best possible communication

CT-ComLink® cables ensure the perfect performance of complex communication systems

Maximum flexibility

Highest compatibility with third-party products thanks to numerous adapter cables

Best connections

CT-ComLink® ODU connector with break-away technology





Headsets

Reliable, certified and future-proof - these features make CEOTRONICS headsets very popular products for fire brigades, police, defence forces, industry and aviation. They are suitable for a wide range of professional requirements: Always just right, when it counts.



More on the

CT-ClipCom Digital

Premium in-ear system for the best hearing protection

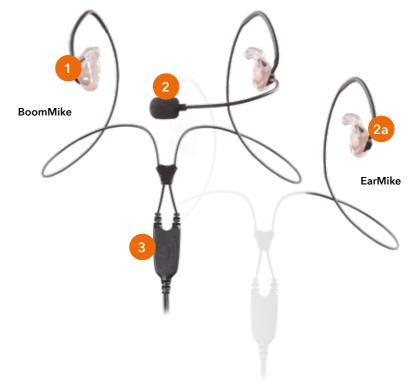
There are work scenarios and operational situations in which noise drowns out everything else. Still being able to communicate flawlessly at this point is crucial to the success or failure of a mission. Highly sophisticated hearing protection is just as essential here as being able to hear ambient sounds.

The CT-ClipCom Digital achieves this in outstanding quality. This in-ear headset with certified hearing protection and ambient sound reception is a binaural, stereo-compatible headset that is also perfectly suited for multichannel applications. When ambient sound reception is activated, ambient noise, including impulse-type noise, is reduced to a limit of 85 dB(A) to protect hearing. The first-class ambient sound reception (CT-ASR) can be adjusted in four steps for a natural listening experience. With CT-ClipCom Digital, incoming audio signals are optimised by a digital signal processor. Interfering ambient noise is filtered out and speech is transmitted particularly clearly.

Variably customisable

The in-ear headset is available with a boom microphone (BoomMike) or as an ear microphone (EarMike). With the latter, speech is picked up directly in the ear canal. This means that no background noise can be transmitted.

Three different types of earplugs are available for the CT-ClipCom Digital: lamellar earplugs, moulded foam earplugs or custom-made earpieces (CT otoplastics). These are made of medical silicone and are manufactured according to a personalised earmould.



Features

- 1. Customised earmolds with certified hearing protection (PPE)
- 2. Noise-cancelling boom microphone
- 2a. Voice pick-up via in-ear microphone
- Digital signal processor for first-class ambient sound reception (ASR)

Advantages at a glance

Perfect protection

Certified hearing protection in accordance with EN 352 (PPE)

Perception of the environment Ambient sound reception (ASR)

7 inbient sound reception (7 is it

Intelligent technology

Automatic audio configuration

Wearable under safety helmets

Ear microphone version can also be used under breathing apparatus

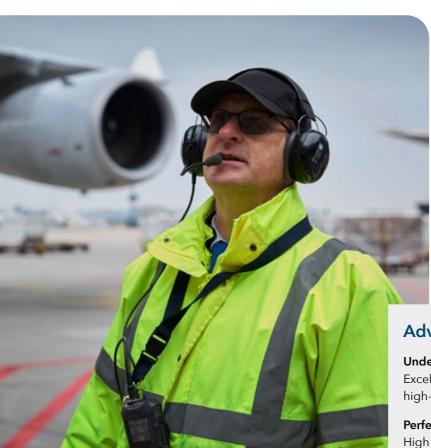
Ear muffs



CT-HN Headset Loud, louder, HighNoise

If you can no longer understand your own words, it is impossible to act safely. For such situations, you need professional hearing protection that allows you to hear perfectly, as well as sophisticated microphone technology that filters out all unnecessary noise.

The CT-HN headset offers precisely these advantages. HN stands for HighNoise and thus describes the conditions for which this headset was developed. Its ear cups with replaceable gel pads offer a high level of sound insulation and comfort and mould perfectly to the shape of the head. The noise-cancelling boom microphone filters out disturbing ambient noise and transmits speech particularly clearly. The CT-HN headset is also stereo-compatible.



Advantages at a glance

Understanding at its best

Excellent sound insulation for use in high-noise areas

Perfect fit

High wearing comfort



3M™ PELTOR™ ComTac™ **VIII Headset**

Exclusively with CT-ComLink® direct connection

If you use one of the most popular headsets for police and defence forces, you don't have to give up the many advantages of the CT-ComLink® technology. In cooperation with 3M™ PELTOR™, CEOTRONICS offers the ComTac™ VIII headset exclusively with CT-ComLink® direct connection. The headset offers advantages such as:

- Situational awareness due to listening to ambient sounds
- Safe hearing protection against impulse noise and continuously high noise levels (PPE-certified, SNR 29 dB(A))
- Advanced listening mode with Mission Audio Profiles (MAP)
- Noise-cancelling boom microphone
- MIL-STD-810H and MIL-STD-461G
- Control of the ambient sound hearing and the power supply by the CEOTRONICS control units



product



Features

- 1. Mouldable special wire
- 2. Acoustic tubes with ear tips
- 3. Noise-cancelling microphone

CT-Neckband Headset

Thin, lightweight and a perfect fit

The best equipment is the one that you don't notice and that works smoothly. This is especially true for headsets: for optimum communication during operations, they must transmit speech clearly and distinctly and be perfectly seated at the same time. If they also fit perfectly under any safety helmet, they are the first choice.

The CT-Neckband Headset represents this perfection. Weighing just 32 grams, the headset impresses with its extremely thin design. Thanks to the mouldable special wire, it can be individually shaped to any head type and can be worn under safety helmets. The speaker signal goes directly into the ear canal via sound tubes - with or without ear tips. Speech is transmitted via a noise-cancelling boom microphone.



Features

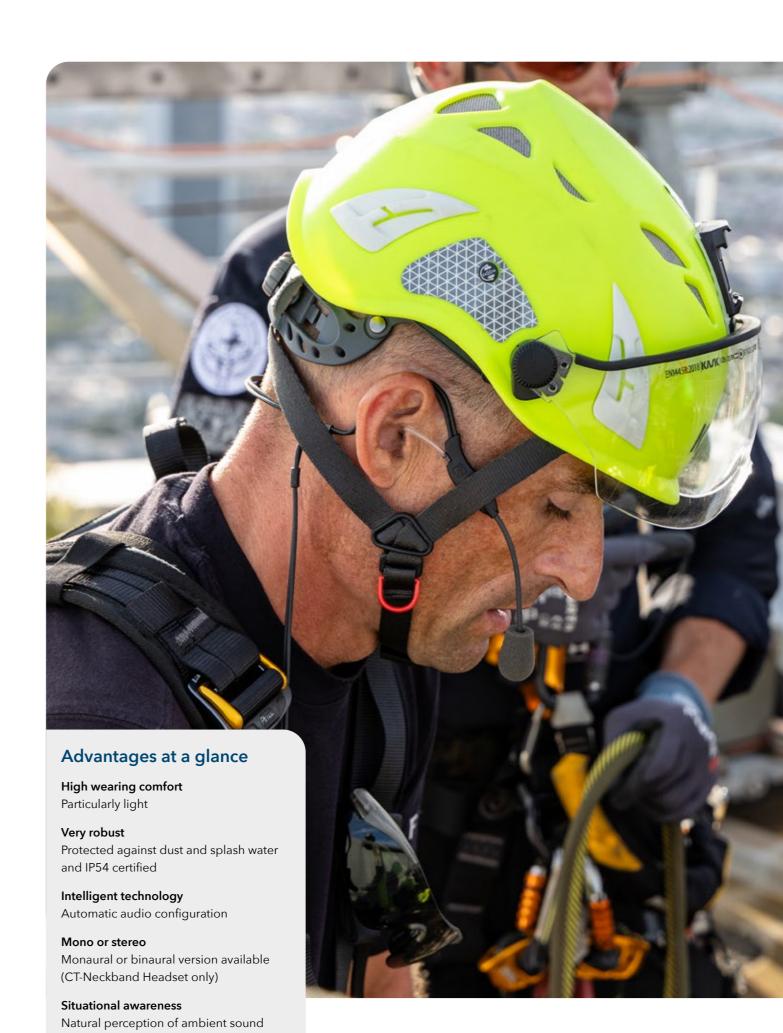
- 1. Robust, adjustable neckband
- 2. Noise-cancelling microphone

CT-ActionNeckband Headset

Extremely robust in every application

Extreme external conditions require special equipment. This is the only way to ensure secure communication, which is essential for police and defence force operations.

The CT-ActionNeckband headset is recommended for this purpose. It is exceptionally robust and has been developed for extreme conditions. The helmet-independent neckband headset is quickly ready for use and can be worn under helmets. Its pleasant weight ensures a high level of wearing comfort - in any situation. The CT-ActionNeckband headset ensures that speech is transmitted in particularly clear quality. This is ensured by the flexible boom microphone and effective noise cancellation.



Headsets

Special assignments Special assignments



Features

- 1. Adjustable for over- or behind-the-head band
- 2. Multiple adjustment options via screws
- 3. Noise-cancelling microphone

CT-CombiCom

Customised for complex applications

A headset must fit the application - not the other way round. Particularly in complex situations, the headset must adapt to the wearer and the situation so well that only its perfect functions are perceptible.

The CT-CombiCom fulfils this requirement. The modular on-ear headset is lightweight yet robust. Anyone who uses it will be impressed by its high degree of flexibility. The elastic headband can be worn over- and behind-the-head. The headset can also be adjusted to the wearer's head size and can be worn under a helmet or other headgear. It can be quickly and individually customised to the respective requirements using robust plug and screw connections.

The boom microphone is also flexible and has a length-adjustable boom arm; it transmits speech particularly clearly.

Advantages at a glance

High wearing comfort

Individually adjustable to any head size

Intelligent technology

Automatic audio configuration

CT-ThroatMike Comfort

Fully understandable in HAZMAT protective suits

Operations in HAZMAT protective suits are among the toughest. Moving around in them and fulfilling mission-specific tasks is usually a major challenge. Trouble-free communication between the HAZMAT team members is essential.

CEOTRONICS has developed and perfected the CT-ThroatMike Comfort for precisely this purpose. This headset is suitable for wearing under protective suits, masks and helmets. The throat microphone picks up structure-borne sound directly at the larynx, ensuring clear and safe speech transmission without ambient noise. It is worn around the neck with a skinfriendly and comfortable stretch band.

Features

- 1. Adjustable Ear-Hanger
- 2. Comfortable, skin-friendly stretch band
- microphone



Perfect for HAZMAT protective equipment

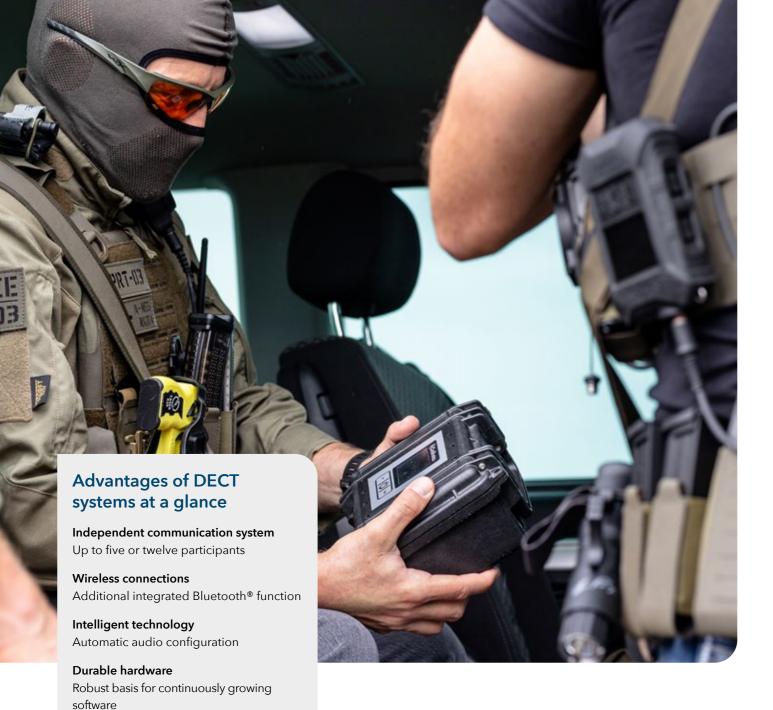
Can be worn under protective suits and with respiratory protection

Advantages at a glance

Intelligent technology

Automatic audio configuration





DECT systems

The DECT systems from CEOTRONICS are independent, secure and stable. Locally operating task forces in the police, fire service and industry as well as defence forces and at airports rely on the CT-DECT systems. Equipped with the unique CT-ComLink® technology, they guarantee latency-free full-duplex communication between multiple users - exactly when it really matters.



More on the DECT systems

CT-DECT Multi

The product innovation for latency-free full duplex communication

Precise statements without technical delay That's what matters in use. In complex and
critical situations in particular, just one to two
seconds of delay can have fatal consequences
during voice transmission. The right communication system is crucial for success here.

CEOTRONICS has developed the innovative CT-DECT Multi to meet this particular challenge: A wireless, independent communication system that is equipped with the unique CT-DECT technology.

The CT-DECT Multi, which won the DECT Innovation Award, enables up to five users full-duplex communication in an independent short-range radio circuit. This means you can listen and speak at the same time - without any noticeable delay and without having to press a PTT button. This allows you to concentrate on the job in hand.

3 DECT DECT Award

Winner

Features

- 1. Impact and scratch-resistant display with highest readability
- 2. Menu control
- 3. Volume control
- 4. Headset connection/Intercom system connection
- Robust and resistant: tested according to MIL-STD-810G standard and IP66 and IP67 classified

CT-DECT Case

Independent short-range communication in complex operations

In special operations, fast and precise action is often required under all circumstances. This can only work if all emergency services can communicate with each other in real time - especially when there is no visual contact between them.

Using the CT-DECT Case as a mobile base station, a secure and stable DECT radio circuit can be set up for latency-free communication for up to twelve users. The range of this short-range radio system is approx. 300 metres. Furthermore two additional communication channels can be integrated: wired, via a CT-ComLink® interface, to a radio or intercom system and wireless via a Bluetooth connection.



Features

- Impact and scratch-resistant display with highest readability
- 2. Menu control
- 3. Headset connection/Intercom system connection
- Robust and resistant: tested according to MIL-STD-810G standard and IP67 classified



Helmet systems



Protective, custom-fit and robust - the helmet systems from CEOTRONICS fulfil the highest requirements and are certified as personal protective equipment (PPE). That's why defence forces in jet operations or on military ships in particular rely on them completely. The helmet systems combine technical perfection with high-quality materials and workmanship. They are therefore always reliable in use - exactly when it counts.



Features

- 1. Available in six different colours
- Noise-cancelling microphone with flexible boom arm
- Bracket for easy attachment of a special torch
- 4. Optional full-vision goggles with interchangeable lens (clear or grey "Uvex ultrasonics")
- Gel padding for high sound insulation and wearing

CT-NoiseProtection Hood

All-round protected communication

Helicopters taking off or landing make normal communication almost impossible. Both the noise and dangerous situations - for example due to flying debris - also increase the risk of

With the CT-NoiseProtection Hood, flight deck crews can communicate without interference. At the same time, hearing, head and eyes are protected. It offers an excellent sound attenuation value of SNR 29 dB(A). The lightweight helmet shell offers reliable protection against injuries caused by a head impact. The integrated noise cancelling microphone, in conjunction with a CT-DECT system, enables wireless full-duplex communication in high-noise areas - for example on helicopter landing platforms.

CT-NoiseProtection Helmet

Perfect communication in high noise levels

Communication in extremely noisy environments is a major challenge. However, interference-free communication is essential for ground handling of military jets, maintenance work on the aircraft or engine tests.

The CT-NoiseProtection Helmet guarantees highest communication quality and hearing protection with a sound attenuation value of SNR 39 dB(A) for extreme noise ranges up to 140 dB(A). The skullcap contact microphone ensures clear speech transmission. Four microphones ensure ambient sound reception (ASR) despite perfect sound insulation.

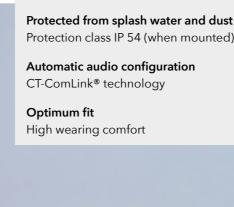
Features

- 1. Available in three sizes
- Clear or tinted visor, Optional full-vision goggles with interchangeable lens
- 3. Gel-supported skullcap contact microphone
- 4. Four microphones for ambient sound reception (ASR)
- 5. Gel padding for high sound insulation and wearing

Advantages at a glance

Certified protection

for hearing in accordance with EN 352, head and eyes in accordance with EN 812 and EN 166







Accessories About us



Features

- 1. CT-ComLink® radio connection
- 2. VARTA LiPo battery for up to 50 hours of power supply

CT-InlinePowerPack Mobile power supply

The CT-InlinePowerPack is the optional mobile power supply for all CT-MultiPTTs. It is used when there is no or insufficient power available from connected radio devices. In this case, the CT-InlinePowerPack supplies the multifunctional PTT buttons with power for up to 50 hours of the energy required.

The external power source has an additional integrated CT-ComLink® socket so that no communication port is blocked during operation.



CEOTRONICS - when it counts

CEOTRONICS develops and produces professional communication systems that guarantee secure communication even under the most adverse environmental conditions and at the same time offer effective protective functions. The highest quality, usability, flexibility and future-proofing of the products are just as much a matter of course as perfect service and corporate governance characterised by clear values.

Communication of tomorrow

... is already being created at CEOTRONICS today. In the research and development department, an interdisciplinary team of electricians, technicians and engineers from various disciplines work on highly specialised products. The experts accompany each development right through to practical application, where it is further developed together with the customer.

Quality assurance

CEOTRONICS products increase work safety, boost productivity and ensure maximum efficiency, not least thanks to the customisation options for different application scenarios. They function safely and reliably when it counts.

This is also ensured by the professional quality assurance with its modern, in-house measuring and testing facilities, such as fully automated test systems, ESD laboratory, acoustics laboratory, cable test laboratory and climate, water, immersion and dust laboratory.

Customised service

The "everything from a single source" principle applies at CEOTRONICS from development to production to commissioning and beyond. We

offer a comprehensive portfolio of services for all premium products, including

- Commissioning/further training
- Maintenance
- Warranty extension
- Engineering
- Software preUpgrades
- Further after-sale services
- Individual service packages

Business means responsibility

An important basis for everything we do is our commitment to the free democratic basic order. Specifically, the values associated with this determine every enquiry and delivery of products. We also act with a deep awareness of our responsibility for sustainability, the environment and society. Only those who incorporate these principles into their business activities can be successful. Today and in the future.

The CEOTRONICS team will work with you to develop specific solutions for your individual requirements. Your personal contact will be happy to advise you on all CEOTRONICS products and services:

ceotronics.com/contact-us

CEOTRONICS AG

Adam-Opel-Str. 6 63322 Rödermark (Germany) Phone +49 6074 8751-100 Email sales@ceotronics.com