



COMMEND INDUSTRIAL COMMUNICATION FOR EFFICIENCY AND SAFETY

Enhancing operational communication among work teams

















CLEAR, TARGETED AND EFFECTIVE COMMUNICATION AND INDUSTRIAL PUBLIC ADDRESS

Our solutions are designed with three main goals in mind: to significantly improve our customers' operational communication, to boost their profit by enabling more efficient workflows, and to keep costs down by helping to prevent downtimes and keeping incident resolution times short.

EFFICIENCY & PRODUCTIVITY | OCCUPATIONAL SAFETY | ACCESS & SECURITY

In industrial companies and facilities employees must be able to rely on high-quality communication and PA, on reliable alarms in an emergency, and on video support and control systems – solutions that are designed to withstand even extreme environmental conditions. Obviously, it makes a big difference if a communication system is used in the chemical or pharmaceutical industry, in a production setting or in a logistics environment. Special challenges require special solutions.

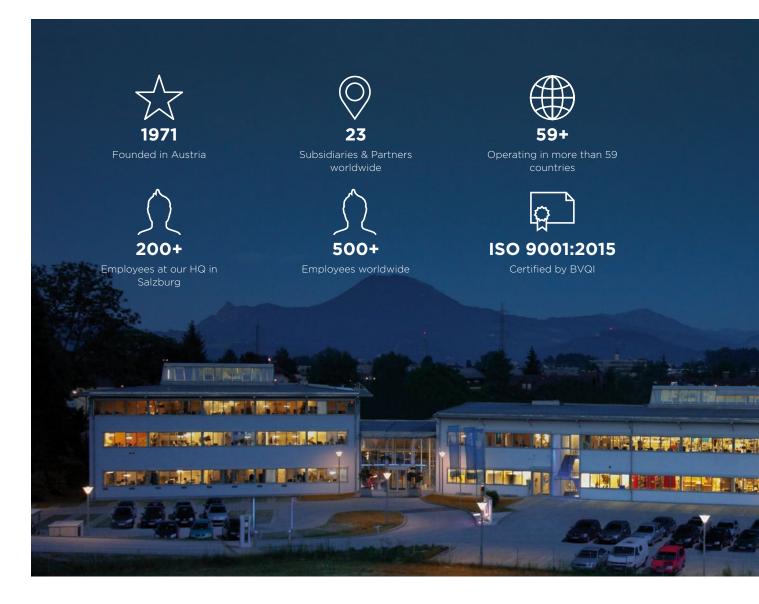
6

THE SOLUTION PLATFORM

Series 7000 Intercom stations for	
industrial environments, including Ex-Zones	8
Series 8000 Intercom stations	13
Flashing lights and acoustic hoods	16
Intercom stations for cleanrooms	17
EMERGENCY AND DANGER RESPONSE	18
CONTROL DESK	20
Software for control desk management	20
Control desk stations	22
MOBILE SOLUTIONS	23
Intercom client	23
Mobile radio integration	24
PUBLIC ADDRESS	25
Unified PA	25
Amplifiers	26
Loudspeakers	27
PERIMETER PROTECTION	29
VEHICULAR AND PEDESTRIAN ACCESS	30
EN 81 COMPLIANT LIFT EMERGENCY CALL	32
INTERFACES AND TECHNOLOGY PARTNERS	33
SERVERS	34

industry.commend.com

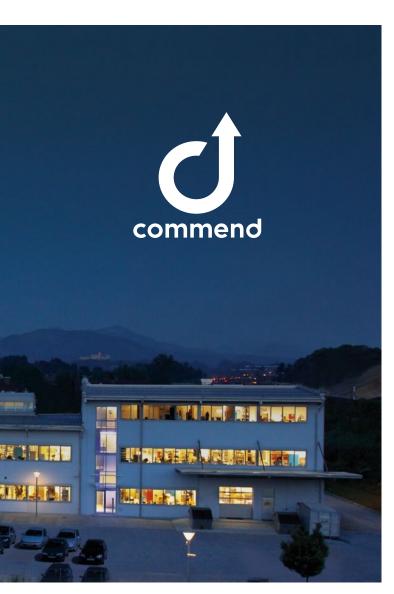
ABOUT COMMEND PASSION FOR SECURITY AND COMMUNICATION





DESIGNED AND BUILT IN AUSTRIA

From the development and design of our products to the selection of individual components and our quality assurance processes – everything is dedicated to ensuring a long product life for the end user. The result are products with an excellent ROI thanks to their long lifecycle. Proven Commend Evergreen Engineering bridges product generation gaps. This means legacy components retain full functionality when used in combination with latest-generation systems. Our production facilities in Salzburg (Austria) are the birthplace of the stuff that Intercom dreams are made of. Millions of electronic components are brought together to create products that satisfy our clients' demands and deliver excellent audio quality that makes their users prick up their ears.



EFFICIENT COMMUNICATION IS KEY WHEN IT COMES TO OPTIMISING PROFITABILITY WHILE HELPING AND PROTECTING PEOPLE IN THEIR DAY-TO-DAY ACTIVITIES.

When every second counts, people need technology that does not just work but that works with one hundred per cent reliability - anywhere, around the clock.

At Commend, we are aware of our responsibility. That's because millions of people trust the Commend brand and our products every day, whether at a London tube station, a car park in France, steel works in China or a hospital in the United States. Where every word counts, Commend solutions make sure not a single one is lost.





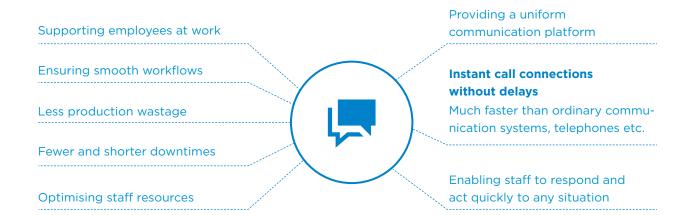
MORE THAN 45 YEARS OF EXPERIENCE

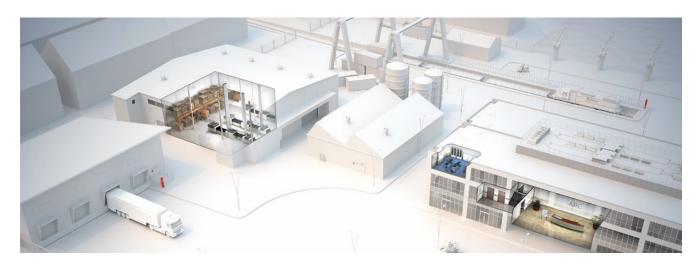
Since its founding in 1971, Commend has grown from a small family-owned business into a global leader in Integrated Intercom Systems. Today, our unique solutions help to ensure the protection of people, property and valuables throughout the world. Commend Intercom Solutions have proven highly successful in many industry sectors.



OPTIMISED TEAM COMMUNICATION BOOSTING EFFICIENCY AND PRODUCTIVITY

Clear, intelligible and ideally hands-free communication is essential in industrial environments. The ability to keep in touch with team members in remote locations or coordinate workflows on the fly is just as important. This saves valuable time. From Intercom stations and smartphone apps to loudspeakers, from integrated radio and telephony to optimised speech intelligibility through background noise suppression: Commend's communication solutions are designed specifically to simplify and speed up everyday workflows.





CONFERENCE CALLS

These provide a quick-fire way for team coordination along production lines, even on large industrial premises, to ensure more efficient collaboration. Call participants can be pre-defined or selected as needed, with the option of hands-free OpenDuplex® or Simplex connections.

FLEXIBLE CALL FORWARDING

Whenever the central control desk is unattended or unavailable, incoming calls are forwarded automatically in a pre-defined order of priority (Intercom stations, telephones, mobile devices). Calls can also be forwarded to multiple recipients simultaneously to ensure they are answered as quickly as possible.

PERFECT SPEECH QUALITY

Hands-free communication works perfectly even in extremely noisy environments. This is made possible by a well-balanced combination of background noise suppression, high sound pressure and automatic volume adjustment (IVC – Intelligent Volume Control).

PLATFORM WITHOUT LIMITS

Commend solutions integrate all means of communication into a consolidated hub platform. This allows you to use a stationary Intercom station to link up with a mobile radio network, connect to mobile devices or make announcements over the Public Address system. Integrating telephone systems is no problem either.

INSTRUCTIONS DELIVERED

Public Address announcements can easily be targeted to individual persons, teams or the entire workforce to broadcast important information and instructions. Visual and acoustic signals urge employees to pay attention to the subsequent announcement.



CONNECTION PERFECTION

Production areas in industrial environments should not be 'communication islands'. Commend solutions help to keep them connected to the 'outside world'. From the warehouse to the office, everyone is free to communicate and exchange essential information and instructions. There are many other ways that companies can benefit from Commend solutions as well.



Vehicular entry

and exit gates



Reception areas and welcome points

Q

Access control for security critical areas



Lift emergency call points that ensure compliance with legal requirements

000

and many more

SERIES 7000 INTERCOM STATIONS MASTERFULLY RELIABLE IN THE ROUGHEST OF ENVIRONMENTS



EX 7000 Industrial environments with Ex-Zones

GAS

IIC Highest Explosion Hazard Group

Zone 1 II 2G Ex db eb ib IIC T6 Gb

Zone 2 II 3G Ex db ec ic IIC T6 Gc

T6 Highest Temperature Class

DUST

IIICHighest Explosion Hazard GroupZone 21II 2D Ex tb ib IIIC T80°C DbZone 22II 3D Ex tc ic IIIC T80°C Dc

1991-1991 AFF-1995

455 57

111111111

1 2

T80°C Highest Temperature Class



EE 7000 and EE 8000

Industrial environments without Ex-Zones

IP66 Fully protected even in extreme environments

IK10 Shock proof and highly durable



CERTIFIED FOR EX-ZONES

The "EX" line of Series 7000 has been developed with painstaking attention to the demanding requirements for hazardous and explosive environments. Of course the devices are internationally certified.



ATEX IECEX CNEX EAC



VERSATILE

When it comes to communication, the requirements of the various branches of industry could not be more different. One industry may be focussed on mobility, while another needs stationary recipient terminals, and yet another may depend on communication management and recipient stations to enable easy-to-set-up conferences with multiple participants.

This is why the Series 7000 Intercom stations are designed to cover all possible scenarios while making the devices easy to operate, whether in regular industrial environments or particularly hazardous Ex-Zones.





AUDIO QUALITY FOR EFFICIENCY

Superior speech intelligibility even against loud background noise is essential for efficient processes and straightforward coordination among co-workers. This is where our highly efficient 20-Watt Class-D amplifiers come in. They provide the required volume capacity, hands-free OpenDuplex® connections and IVC (Intelligent Volume Control) for auto-adjusting the volume level to ambient acoustic conditions.

Further communication features such as Simplex-based PTT (Press-to-Talk), Paging/Party Line and Conference Call can be added as needed.

MADE FOR THE ROUGHEST ENVIRONMENTS SERIES 7000 INTERCOM STATIONS

6

۲

Durable double-walled construction made from high-performance polycarbonate

- Corrosion-proof
- Low weight compared to other industrial heavy-duty stations, especially Ex-stations.
- Orange signal colour ensures easy visibility for optimum security.
- IP66, IK10.

Reliable, whatever the weather

Developed to withstand extreme ambient conditions.

Direct connection, power supply and control of flashing warning beacons

Additional connection options for monitoring inputs and controlling outputs (gate controls, etc.).

Absolutely watertight and dustproof microphone

Can be configured as a noise cancelling microphone.

Three keypad layouts

00

2

5

8

4

7

З

6

9

X

Full keypad / Party-Line Conference calls / Direct dialling

T4 T5

T2 T3

Х

PAGE T1

	_	
Т		X
		F 1
		F2
		F3
		F4

1 2 3

8

5 6

9

4

7

Version with

loudspeaker



Version without loudspeaker



F 8

Version with handset

Extra-high volume capacity up to 118 dB

5

0

Powerful enough to eliminate the need for external loudspeakers in most applications. Integrated loudspeaker and Class-D amplifier provide a sound pressure level of up to 118 dB/0.3 m (108 dB/1m).

Direct connection of separately placed loudspeakers

Dedicated powerful Class-D amplifier for optional external loudspeaker with up to 20 Watts output capacity for PA and paging.

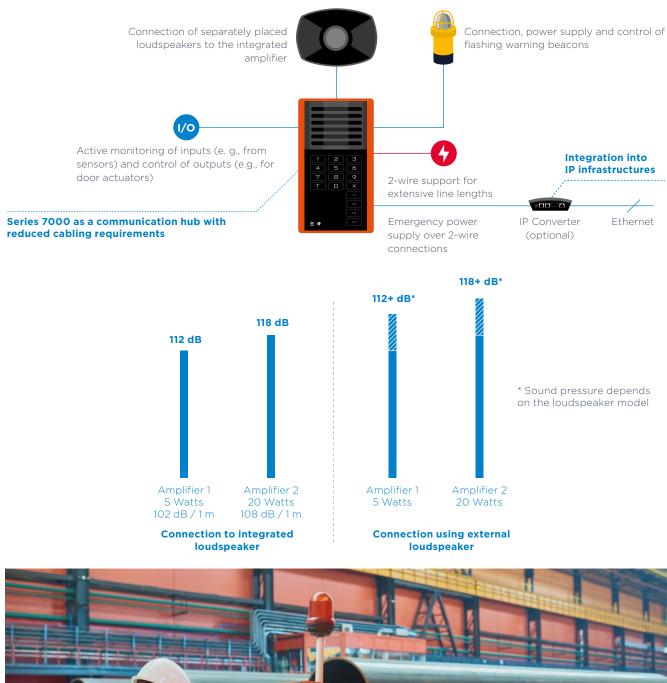
Robust membrane keypads for heavyduty industrial applications

Large buttons ensure easy, reliable operation even when wearing protective gloves. What is more, the stations are easy to clean (resistant against chemical detergents) and mechanically hard-wearing.

Industrial sta	ations with full k	(eypad			1 2	2 3	
and 4 function Series 7504	on buttons				4 5	5 6	2
Digital IP66	16 kHz			9	7 8		
	with integrate	d loudspeaker			without lo	oudspeaker	
		with ha	andset			with h	andset
100 – 240 V AC	22 – 60 V DC / 18 – 30 V AC	100 – 240 V AC	22 – 60 V DC / 18 – 30 V AC	100 – 240 V AC	22 – 60 V DC / 18 – 30 V AC	100 – 240 V AC	22 – 60 V DC / 18 – 30 V AC
	Æ	EX 7504D1 for	Ex-Zone 1 and 21 o	lassified industria	al environments		
EX 7504D1 AC S	EX 7504D1 DC S	EX 7504D1 AC S H	EX 7504D1 DC S H	EX 7504D1 AC	EX 7504D1 DC	EX 7504D1 AC H	EX 7504D1 DC H
	(E	EX 7504D2 for I	Ex-Zone 2 and 22	classified industri	al environments		
EX 7504D2 AC S	EX 7504D2 DC S	EX 7504D2 AC S H	EX 7504D2 DC S H	EX 7504D2 AC	EX 7504D2 DC	EX 7504D2 AC H	EX 7504D2 DC H
		EE 75	04D for common	industrial environ	ments		
EE 7504D AC S	EE 7504D DC S	EE 7504D AC S H	EE 7504D DC S H	EE 7504D AC	EE 7504D DC	EE 7504D AC H	EE 7504D DC H
Series 7P04 Industrial sta and 4 function Digital IP66		y line keypad		3	PAGE T1 T2 T4 T2		9
	with integrate	d loudspeaker			without lo	oudspeaker	
		with ha	andset			with h	andset
100 - 240 V AC	22 - 60 V DC / 18 - 30 V AC	100 - 240 V AC	22 - 60 V DC / 18 - 30 V AC	100 - 240 V AC	22 - 60 V DC / 18 - 30 V AC	100 - 240 V AC	22 - 60 V DC / 18 - 30 V AC
	Æ	EX 7P04D1 for	Ex-Zone 1 and 21 o	lassified industria	al environments		
EX 7P04D1 AC S	EX 7P04D1 DC S	EX 7P04D1 AC S H	EX 7P04D1 DC S H	EX 7P04D1 AC	EX 7P04D1 DC	EX 7P04D1 AC H	EX 7P04D1 DC H
	<u>(</u> E	EX 7P04D2 for I	Ex-Zone 2 and 22	classified industri	al environments		
EX 7P04D2 AC S	EX 7P04D2 DC S	EX 7P04D2 AC S H	EX 7P04D2 DC S H	EX 7P04D2 AC	EX 7P04D2 DC	EX 7P04D2 AC H	EX 7P04D2 DC H
		EE 7P	04D for common	industrial environ	ments		
EE 7P04D AC S	EE 7P04D DC S	EE 7P04D AC S H	EE 7P04D DC S H	EE 7P04D AC	EE 7P04D DC	EE 7P04D AC H	EE 7P04D DC H
Series 7008 Industrial stations with 8 function buttons Digital IP66 16 kHz							
with integrated loudspeaker		without loudspeaker					
		with ha					andset
100 - 240 V AC	22 - 60 V DC / 18 - 30 V AC	100 - 240 V AC	22 - 60 V DC / 18 - 30 V AC	100 - 240 V AC	22 - 60 V DC / 18 - 30 V AC	100 - 240 V AC	22 - 60 V DC / 18 - 30 V AC
EX 7008D1 for Ex-Zone 1 and 21 classified industrial environments							
EX 7008D1 AC S	EX 7008D1 DC S	EX 7008D1 AC S H	EX 7008D1 DC S H	EX 7008D1 AC	EX 7008D1 DC	EX 7008D1 AC H	EX 7008D1 DC H
EX 7008D2 for Ex-Zone 2 and 22 classified industrial environments							
EX 7008D2 AC S	EX 7008D2 DC S	EX 7008D2 AC S H	EX 7008D2 DC S H	EX 7008D2 AC	EX 7008D2 DC	EX 7008D2 AC H	EX 7008D2 DC H
EE 7008D for common industrial environments							
EE 7008D AC S	EE 7008D DC S	EE 7008D AC S H	EE 7008D DC S H	EE 7008D AC	EE 7008D DC	EE 7008D AC H	EE 7008D DC H

COST BENEFITS OVER THE ENTIRE PRODUCT LIFECYCLE

The stations are fast and easy to install and start up. Moreover, they double as a hub, which simplifies and minimises cabling requirements. Also, Series EX 7000 Intercom stations for Ex environments do not use expensive cable glands, which eliminates the need for cyclic technical inspections and maintenance. What is more, automatic self-monitoring of all functions and lines ensures permanent availability, making manual, time-consuming function checks unnecessary.





SERIES 8000 INTERCOM STATIONS PROVEN, HIGHLY DURABLE DESIGN

The Series EE 8000 Intercom stations were developed specifically to provide resistance against extreme temperatures and high levels of humidity and dirt while still enabling clear communication and high speech intelligibility, even in extremely noisy environments. This way, they help to improve works safety and enable well-coordinated workflows in a variety of industrial environments.

Wherever absolute reliability, ease of use and ultimate availability are required, Series 8000 stations really come into their own. Their extremely durable hardware is complemented by a flexible application-specific software. Its flexible functions are designed to accommodate individual needs as well as local legal requirements and regulations.



Series EE 8000 products have proven highly successful in countless project installations around the world. Applications range from industrial environments such as metal-working and mining, manufacturing, oil and gas production and the chemical industry to power plants and public utilities, valued for their many benefits, the Series 8000 Intercom stations have also found their way into environments such as waterways, road tunnels and motorways.



PROVEN, HIGHLY DURABLE DESIGN SERIES 8000 INTERCOM STATIONS

Durable double-walled construction made from high-performance polycarbonate

- IP66
- Corrosion-proof
- Orange signal colour ensures easy visibility for optimum security

Reliable, whatever the weather

Developed to withstand extreme ambient temperatures

Flexible connection options

for a handset, flashing warning beacons and separately placed loudspeakers; additional ports for monitoring inputs and controlling outputs (gate controls, etc.)

Absolutely watertight and dustproof microphone

The microphone's sensitivity can be adjusted to local conditions to ensure ultimate speech intelligibility. This way, the microphone can be adjusted to different talking distances.

Extra-high volume capacity up to 118 dB

6

Ó

C COMMEND

Powerful enough to eliminate the need for external loudspeakers in most applications. Integrated loudspeaker and 25 W Class-D amplifier provide a sound pressure level of up to 118 dB/0.3 m (108 dB/1m).

Easy to operate and custom configurable

Large industrial-sized, IP67 rated pushbuttons provide fast, reliable access to all essential functions.

LED buttons can be used for status indication, e.g., Active/Busy, system events, etc.

The buttons can be custom programmed to suit individual needs. For example, they can be used for initiating (direct-dial) calls, broadcasting announcements or bringing up Intercom functions (controls, actions, etc.).

Technical Details

Digital 2-wire cabling supports extensive line lengths

Power supply 24 - 42 VAC/40 VA or 22 - 60 VDC/40 W

SOME OF THE MANY POSSIBLE COMBINATIONS



EE 8158M | 8 LED keys



EE 81C8M | 2 LED keys and HD video camera



EE 8238M | full keypad and two LED keys; without loudspeaker



EE 81ADMSOS | 1 LED key and 1 emergency call button; SOS labelling

MODULAR CONCEPT FOR INDIVIDUAL COMBINATIONS

Based in a modular building-block system, the device enables a variety of different combinations. This allows the Intercom station to be custom tailored to the specific communication requirements in different areas. A basic housing can easily be combined with one or two additional expansion housings. This way, it is possible to compile Intercom stations with up to 50 freely programmable keys. For further combination options and technical details please refer to the data sheet.

	666	666
	666	888
888	888	888
888	666	888
	666	888
00	666	888



HOUSING



Basic housing EE 8999M

MODULES



Loudspeaker Module EM 650 | 15 W output power; sound pressure 96 dB/1 m



Keypad Module 1-6 EM 602



Microphone Module EM 680 | 2 buttons; status indicating LEDs



Basic housing with "SOS" label text EE 8999MSOS



Expansion housing EE 8999S



Camera Module EM 6CA | HD video camera and LED illumination



Keypad Module 7-X EM 603



Microphone Module EM 681 | 1 button and 1 emergency call button; status indicating LED



LED Keypad Module EM 605 | Status indicating LEDs; replaceable label fields



Dummy Module EM 600



Microphone Module EM 6BO | 1 emergency call button; 1 status indicating LED



Keypad Module EM 606 | Replaceable label fields



Dummy Module SOS EM 6A0



Microphone Module EM 660 | 2 buttons

ACCESSORIES FLASHING LIGHTS



5/10/15 JOULE FLASHING LIGHTS BExBG05 | BExBG10 | BExBG15 ATEX

- These flashing light modules meet virtually any installation requirement. Suitable for side mounting and installation on ceilings or floors.
- Ex classification: 2G (Zones 1 and 2), 2D (Zones 21 and 22).
- Extremely bright with up to 15 Joule of flash energy.
- Large-sized mounting base for easy installation.
- Optionally available with extra-secure mounting base.
- Highly durable construction made from seawater-resistant aluminium, with high-grade steel protective cover; IP67 rating.



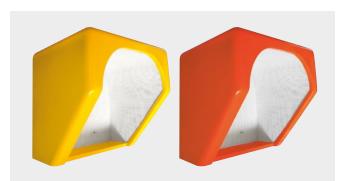
13 JOULE FLASHING LIGHTS Quadro F12

- Fast, flexible and secure installation via concealed interior mounting holes or exterior mounting tabs.
- IP66 and IP67 rated; IK08 rated, shock proof casing.
- Designed with reliability in mind, the Quadro lights are built to withstand outdoor conditions and even hailstorms or highpressure cleaning.

Quadro S

- Automatically synchronised flashing light.
- Up to ten of these lights can be operated synchronously for an unlimited period of time, with all lights flashing simultaneously.

ACCESSORIES ACOUSTIC HOODS





PYRA 10 JOULE FLASHING LIGHT PY X-M-10

- Energy-saving design with maximum signalling range, thanks to Xenon technology.
- IP66 rated, with IK08 rated, shock-proof casing.
- Installation is via exterior mounting tabs and interior mounting holes.
- 4 different flashing frequencies selectable via DIP switch.
- When used in arrays of more than one, these lights can also be synchronised.



PYRA KOMPAKT 5 JOULE FLASHING LIGHT PY X-S-05

- This flashing light comes in a compact design. It is suitable for many different applications and is particularly easy to mount securely into place.
- IP66 rated, with IK08 rated, shock proof casing.
- Installation is via exterior mounting tabs and interior mounting holes.
- Easy-to-connect power supply in casing base.
- Shock-proof dome design.

ACOUSTIC HOODS

- Durable, weatherproof high-quality acoustic hoods
- Reduces noise by up to 23 dB
- Made from fibre-reinforced polycarbonate (FRP)
- Colours: yellow and orange
- Fire-resistant as per BS476 Part 7 Class 1

SOLUTIONS FOR CLEANROOMS COMMUNICATION FOR STERILE AREAS

The security and cleanroom standards in the laboratories and production facilities of the pharmaceutical, semiconductor and food industries are extremely high and subject to stringent technical requirements. While this is understandable, it also makes on-site communication difficult. Commend develops technically advanced communication solutions that integrate seamlessly into these challenging work enironments and help to boost efficiency while improving occupational safety.



PHARMACEUTICAL AND SEMICONDUCTOR INDUSTRY

By nature, cleanrooms are rather isolated areas. Here Commend solutions helps staff to stay connected the 'outside world'. They integrate with existing PA and telephone systems to provide seamless connections to all other areas. In case of an incident, this enables instant reaction, information and evacuation as necessary.



FOOD PRODUCTION

To allow employees to exchange information handsfree and efficiently across the production lines, stations are installed in fixed strategic locations throughout the premises to be within easy reach for all workers. This, together with hands-free support, enables a significant increase in work efficiency.







Manustad auto a well.

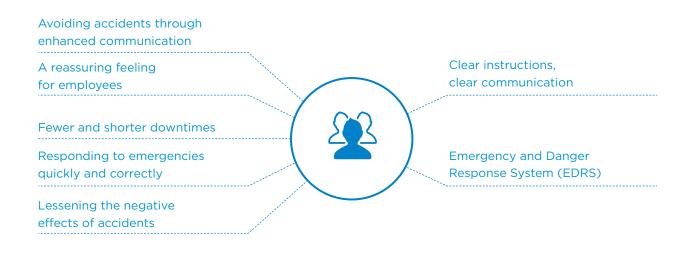
Flush-mounted into a wall receptacle

Mounted onto a wall surface

OCCUPATIONAL SAFETY AND HEALTH MAKING WORK AREAS SAFER

Intercom systems by Commend help to improve occupational safety. It all starts with clear, easily intelligible communication that prevents misunderstandings and helps to avoid accidents. In case of an emergency, users can call for help quickly and easily using the nearest Intercom station or a mobile device. This helps to ensure the safety of working staff with Commend's proven high speech quality, which enables perfect intelligibility even in extremely noisy environments.

It is said that "seeing is believing". Visualisation-based Commend solutions with floor plans and video displays help staff to stay on top of things, allowing them to quickly trace the source of alarm calls and prevent false alarms. Connections to internal as well as external help and rescue forces can be set up at a moment's notice. After all, there is a lot at stake in an emergency, as any (further) mistake might have fatal consequences.





EMERGENCY DANGER RESPONSE SYSTEM (EDRS)

INSTANT REACTION IN EMERGENCIES

Disruptions or emergencies, as well as incidents ranging from harmless to life-threatening - in industrial environments, there is danger lurking everywhere. Whether it's caused by human error or a technical fault, an emergency call for instant, professional help, as every second counts. Communication systems by Commend raise alarms and provide instant overviews of ongoing situations. They initiate crucial processes, support supervisors and establish communication connections to internal and external support and rescue services.





Time-saving communication

Making an emergency call is quick and easy with Intercom stations, push-buttons or mobile devices, either manually or automatically (e.g., via sensors).

REACTION / DE-ESCALATION

Instant connections to internal and external intervention and rescue services enable the exchange of essential information.

ACTION PLAN

Depending on the situation, the solution supports control centre staff in following action plans. This helps control desk operators to take the required measures while keeping stress and time pressure at manageable levels.

AFTERCARE AND PREVENTION

ANALYSIS AND EVALUATION OF EXISTING ACTION CONCEPTS

The Commend system can create a seamless log documenting each event. If required, calls can be recorded along with the corresponding video stream. This enables a detailed analysis and an impartial review of the events. The system provides instant details about what has happened, who responded and how fast. Based on this information, existing reaction plans can be evaluated and revised to include preventive measures for the future.

CONTROL DESK SOLUTIONS ASSISTANTS FOR OVERVIEW AND CONTROL

The control desk is the first point of contact – the hub where all lines converge. It is the main point of coordination, monitoring and supervision. Fortunately, supervising staff at the control desk won't have to rely on their ears alone. They have Commend's visualisation-based solutions at hand, which provide on-screen floor plans and video displays to help them assess the situation quickly and accurately. In case of an emergency help call, the Commend Emergency Danger Response System is standing by to assist staff in taking the necessary steps. If required, they can do so by following a pre-set action plan, which allows a series of actions to be performed automatically.

Action plans

Depending on the situation, the solution supports control centre staff in following action plans.

Announcements and Public Address

Audio management with zone selection, live announcements and playback of pre-recorded messages

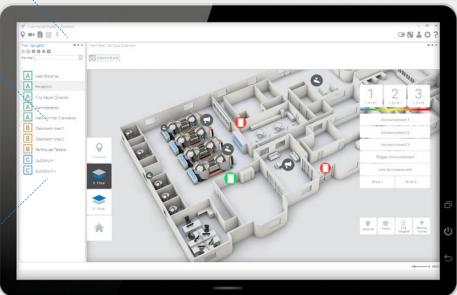
Pre-recorded messages can be combined and played back as needed.

Support for scheduled or situation-specific announcements (system events).

Plans, icons and buttons

Floor plans of buildings and building sections are shown as 3-D/2-D visualisations. System components are indicated in the form of icons. Special buttons provide instant access to functions for call initiation, announcements or video activation.

The icons on the floor plans make it easy to identify incident locations. To make things easier for the operator, maps and plans relevant to the incident are presented automatically.





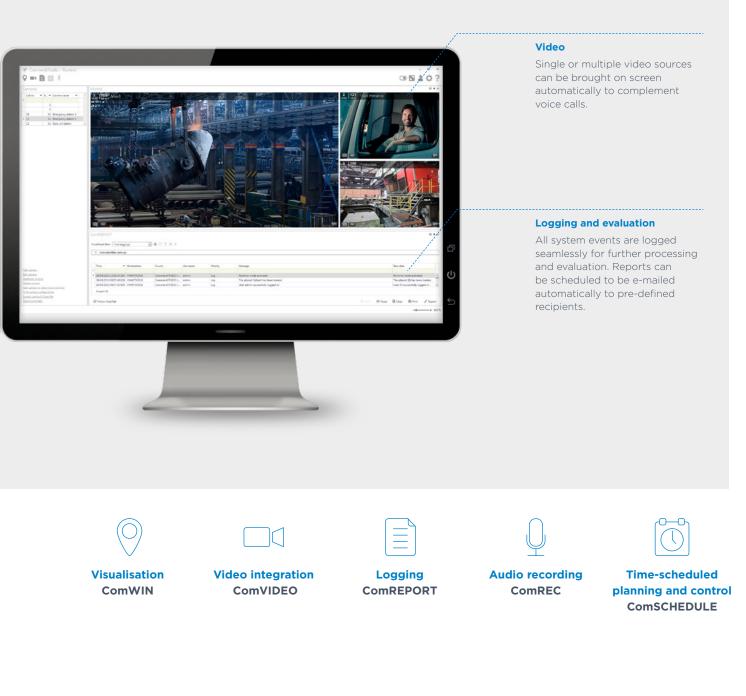


MOBILE CONTROL DESK

Thanks to the Studio Web Client, there is no need to install software locally. All the required data can be accessed in a flash using just a notebook or tablet with a browser.

STUDIO

Studio is a powerful family of software modules for professional control desk management. All control desk functions are displayed on one or more monitors. Interactive icons (on-screen symbols) represent calls and error or alarm messages; they change colour depending on their level of urgency. Additional windows provide other essential details, such as action plans or help texts. Customisable status windows provide operators with an instant overview of the entire ComWIN system along with relevant details.



CONTROL DESK

This control desk station supports users in handling calls, putting all relevant functions at their fingertips. Incoming voice calls are complemented by live video and CCTV images.



Customisable user interface

Using the web interface you can arrange and adjust the user interface to support you in your everyday work. Configure your own GUI layout, place direct dialling buttons where you need them, and keep all your frequently used functions at your fingertips. Best of all, you are not limited to a single page, as you can extend your personal interface layout to several navigation levels. Smart and compact

Touch screen for fast access to features and functions (making calls or PA announcements, or controlling equipment) Optional add-ons: Integrated video camera; handset





Control desk EE 380

Modular design – the Intercom base unit can be enhanced with an add-on gooseneck microphone, handset, extra loudspeaker add-on and up to four direct dialling modules.

Direct dialling modules with multi-functional LEDs for status indication



Control desk EE 900 Compact design, with connection ports for a headset; optionally available with a handset.

Version with gooseneck microphone

CONTROL DESK

Thanks to its modular design, the CONDUCTOR can be custom tailored to a wide range of individual user requirements. A special highlight are the brilliant 16 kHz speech quality and extra high volume capacity. Everything is designed to allow users to keep even complex Intercom infrastructures and integrated external systems under easy, fast and reliable central control.

All control desks can be used as mobile radio dispatchers for mobile radio networks.

Modular design

networks

mmmm

The Intercom base unit can be enhanced with an add-on gooseneck microphone, handset and up to three direct dialling modules.

Direct dialling modules status indication

Direct dialling buttons for instant access to call recipients or PA functions (live announcement, pre-recorded message, zone selection, etc.); includes multi-functional LEDs for status indication.

MOBILE SOLUTIONS KEEPING IN TOUCH WITH TEAM MEMBERS

	Intercom Client	
	Android	
Calls to Intercom stations		Conferences
Keypad for number dialling or for use as direct dialling buttons		Joining or setting up conference calls is a breeze.
	Image: Constraint of the state of	Live announcements
Instant direct connections to	75 • Continues Open Case	via PA system, including zone selection
internal or external emergency and rescue services	22 4 From A	Announcements based on
via direct dialling buttons	X + Rizora Rizora Rizora V - Vietna V	pre-recorded voice messages
Calls to mobile and landline		Subsection control

Outputs enable the control of external equipment such as door actuators.

23

MOBILE SOLUTIONS INTEGRATED MOBILE RADIO

MULTI-SITE COMMUNICATION ACROSS DIFFERENT PLATFORMS

Commend provides the unique ability to connect mobile radio and Intercom stations across multiple sites and technologies. This way, the Commend solution does away with the limitations of mobile radio and makes it a part of the overall communication platform. As a result, employees with stationary Intercom stations can always reach colleagues who are 'on the go' (and vice-versa) via mobile radio. This makes coordination among co-workers easier, more flexible and more efficient.



INTERCOM STATIONS AS MOBILE RADIO DISPATCHERS

The Intercom stations in control rooms can double as radio dispatcher units, which saves the cost of a separate radio communication system. However, cost saving is only one of many benefits, as the Commend platform and its networking capabilities open up a wide spectrum of solutions that would not be possible with classic mobile radio. Commend platform users can even make calls to remote mobile radio networks. What is more, all calls can be recorded if required. Especially in case of an emergency this feature can be helpful for evidence and evaluation purposes.



PUBLIC ADDRESS SOLUTIONS

ONE PLATFORM FOR A MULTITUDE OF POSSIBILITIES

The Unified PA solution is an integral part of Commend's holistic system concept. This approach opens up a range of unique possibilities for operators and a new level of efficiency for users in their everyday work. For example, any Intercom station can be used to make a Public Address announcement. At the same time, the unified platform makes sure that recipients can respond instantly to announcements by calling back via any Intercom station or even via a two-way loudspeaker.

Our solutions are used in buildings, industrial facilities and public infrastructures from public transport to Smart Cities to ensure uncompromising safety and efficiency.



BASED ON ADVANCED NETWORKED IP TECHNOLOGY to enable ultimate flexibility

and scalability



FROM SERVERLESS SOLUTIONS TO VIRTUAL SERVER ENVIRONMENTS

for attractively priced and purposebuilt solutions, whether decentralised or centralised.



COMPATIBILITY WITH OTHER SYSTEMS

helps to keep operating costs down while enabling integrated overall solutions.



FULL SYSTEM SELF-MONITORING

Everything a modern security solution needs - IT security included.

â

SETTING NEW STANDARDS FOR PUBLIC ADDRESS SOLUTIONS

with complementary two-way communication and programmable logic control functions.



PERFORMANCE AND ENERGY EFFICIENCY AT ITS BEST

thanks to systems that require only few components and support decentralised concepts while leveraging latest Class-D amplifier technology.



IP AMPLIFIERS

AF 50

THE EASY WAY TO BRING EXISTING PA SYSTEMS UP TO DATE AND EVEN NETWORK THEM

Need a power boost or technology update for your PA system? No problem – simply replace the existing amplifiers and central units by Commend IP amplifiers. Job done. Existing wiring and loudspeakers can be reused to keep modernisation costs down. The upgraded system provides the full range of Commend functions. If required, multiple systems can be networked via the IP Amplifiers. It is also possible to integrate IP loudspeakers, taking full advantage of all features and functions from the Commend world.

SCALABLE FROM DECENTRALISED TO CENTRALISED SOLUTIONS

AF 500

AF 250

AF 125

A high performance level and a selection of different audio outputs are among the main characteristics of Series AF amplifiers. They are designed for universal use in applications up to complex PA and Intercom solutions. All models come in a compact housing and provide different installation options in addition to an efficient design and high performance. This makes them suitable for a wide variety of applications. With a flexible design like that, the devices also keep expenses low in terms of cabling and energy requirements. What is more, they integrate easily into networks and offer numerous security functions, such as loudspeaker-to-line monitoring and self-monitoring of their audio functions. As a result, Series AF amplifiers make PA not just secure, but highly efficient.

The upward compatibility of the AF Amplifier Series is just as unique as its functional versatility. New functions can be downloaded easily via software updates.

HOW TELEPHONES CAN INTEGRATE WITH PA SOLUTIONS

Commend IP Amplifiers come with IoIP (Intercom over IP) and SIP capabilities, which allows them to integrate easily and seamlessly with existing VoIP/SIP-PBX systems as needed. This enables PA broadcasts via SIP telephones and provides the option of adding PA to existing SIP-PBX systems. The concept even supports serverless solutions that consist only of SIP telephones and Commend IP Amplifiers or Commend IP loudspeakers.



125 - 250 - 500 Watt IP Amplifiers AF 125H - AF 250H - AF 500H | Hybrid IP (IoIP/SIP), Class-D amplifier, robust metal housing for 19"-Racks (1U)

70 V / 100 V loudspeaker output

Loudspeaker-to-line self-monitoring (requires license)

Supports N+1 functionality



50 Watt IP Amplifiers

AF 50H | Hybrid IP (IoIP/SIP), Class-D amplifier, suitable for installation in 19"-Racks or wall-mounting

70V / 100V / 8 Ohm loudspeaker output

Loudspeaker-to-line self-monitoring (requires license)



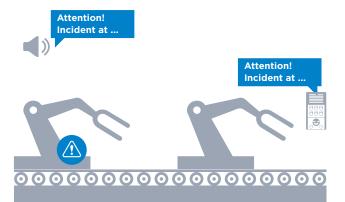
20 Watt IP Amplifiers AF 20H | Hybrid IP (IoIP/SIP), Class-D amplifier, suitable for wall-mounting or installation on a DIN rail bracket

4 / 8 Ohm loudspeaker output

THE REASONS WHY EQUIPMENT **CONTROLS ARE AN ESSENTIAL COMMEND FEATURE - AND WHY** THIS DOUBLE FUNCTION IS UNIQUE

Public Address + Intercom + Interfaces = Solutions

By linking systems you can boost efficiency and cut costs along the way. Eliminating the need for manual step-by-step processes reduces both costs and staff resources. Interfaces allow Commend solutions to be used for interacting with other systems, from simple door actuators to sophisticated video management systems. This includes Commend PA components, which can be combined with a wide range of other equipment such as external machinery.



A special bonus: unique logic-based action sequences

Flexibility helps to meet individual customer requirements. In addition to improving efficiency, these options also provide creative possibilities for useful functions and processes. For example, a specific machine status (e.g., start-up or error) can be set to trigger the automatic playback of a pre-recorded announcement.

- Possible trigger sources include production equip-1 ment, subsections, alarms, VMS, sensors, etc.
- 2. Playback of pre-recorded messages or acoustic warning signals
- 3. Combinable functions and action sequences, e.g., 'Turn light on' + 'Open door'
- 4. Automatically triggered calls to the control desk ... and many other functions.

LOUDSPEAKERS



HP-15(T) 15 W pressure chamber loudspeaker, max. SPL 108 dB, IP66/67

LOUDSPEAKERS FOR EX ENVIRONMENTS



DSP-15EExmN(T)

15 W pressure chamber loudspeaker for Ex-Zone 1,2/21,22, max. SPL 106 dB, IP66/67



25 W pressure chamber loudspeaker, max. SPL 110 dB, IP66/67





DSP-15EExmNL(T) 25 W pressure chamber loud-

speaker for Ex-Zone 1,2/21,22, max. SPL 109 dB, IP66/67

LOUDSPEAKERS FOR CLEANROOMS



100 W alarm loudspeaker, max. SPL 112 dB (with upgrade kit up to 134 dB sound pressure), IP67



BP-660(T) A+B Two separate loudspeakers in one, for A+B System, max. SPL 93 dB



CAREEX-6(T)x2 Bidirectional Ex loudspeaker, max. SPL 81 dB, IP67 (e-chamber)



BLC-550CR(T) 15 W ceiling-mounted cleanroom loudspeaker, max. SPL 88 dB

6 W cleanroom loudspeaker max. SPL 85 dB, IP67

CR-6T



CAP-15 WCR(T) 15 W cleanroom sound projector, max. SPL 85 dB, IP 55



HP-20EExIIN(T)

20 W pressure chamber

loudspeaker for Ex-Zone

2/22, max. SPL 110 dB, IP67

BPF-560CR(T) 15 W ceiling-mounted cleanroom loudspeaker, max. SPL 88 dB, IP 31

IP LOUDSPEAKERS

A wide range of innovative functions sets the network-compatible Commend IP loudspeakers apart from any classic PA solution. Since IP-based loudspeakers by Commend can be used in IoIP as well as SIP environments, they integrate easily and seamlessly into Commend Intercom or VoIP/SIP-PBX systems. Another feature that raises the loudspeakers above classic PA systems is their upward compatibility. This allows new functions to be added effortlessly via a simple software download.



HIGH VOLUME CAPACITY AND BRILLIANT SPEECH QUALITY

thanks to integrated 10-Watt Class-D amplifier. Intelligent Volume Control (IVC) automatically adjusts the volume setting to ambient acoustic conditions, even while outputting sound.

NO NEED FOR CENTRAL AMPLIFIERS

Direct network connection via IP using PoE. This enables solutions with separately placed loudspeakers as well as decentralised arrangements.

ZONES AND ADDRESSING

Each loudspeaker can be addressed and configured individually. Loudspeakers can be assigned to individual groups and zones.



IP horn loudspeaker AFLS 10H HG | IP66, for outdoor areas and industrial environments. Max. sound pressure: 118 dB.



IP projector loudspeaker

AFLS 10H PW | IP54, for indoor and outdoor areas that are protected against environmental influences. Max. sound pressure: 101 dB.



IP ceiling-mounted loudspeaker AFLS 10H CW | IP 54, for indoor areas. Max. sound pressure: 105 dB.

SECURITY SOLUTION PERIMETER PROTECTION

Reliable all-round protection is essential when it comes to securing security-critical outdoor areas. Modern CCTV/ video surveillance does not provide any means of actively intervening in events on-site to defuse critical situations. Commend solutions provide the essential audio component to make this possible. Bi-directional audio connections allow staff at the control desk to observe and actively intervene in ongoing events at the site under surveillance. The clear advantage over 'classic' video-only surveillance is obvious: a firm warning can defuse or even prevent securitycritical activities like vandalism or theft much more quickly and more effectively.











SOLUTIONS FOR VEHICULAR AND PEDESTRIAN ACCESS CONTROLLING ACCESS AND PROTECTING ASSETS

Commend system solutions play a literal 'key role' in enabling access control and corresponding management. Unauthorised persons are kept off the premises, which reduces the danger of industrial espionage, theft and vandalism.





WS 300 V Station with one or three buttons; camera



WS 311V DA Station with one button, camera, induction loop amplifier



WS 200 V Station with one or three buttons



WSDU 52V AM Housing for an access reader

MANAGEMENT OF FACILITY ACCESS POINTS

Lorries and transporters keep arriving at the gates to deliver raw materials, goods, supply parts, and other items. Passenger cars of visitors and service providers also request access to the facilities. The ability to prevent unauthorised access requires a clearly defined management solution. A pre-defined set of rules defines who should be granted access, as well as where and when. This ensures that only authorised persons or vehicles are granted access to the indoor or outdoor areas for which they have been cleared.

3.

CENTRAL MANAGEMENT

Calls from arriving lorries, transporters and passenger cars can be processed quickly and competently at a control centre and forwarded to the appropriate warehouses, loading bays and buildings. Announcing deliveries also helps to speed up things at the respective loading areas. This eases the workload of staff, ensures optimum use of staff resources and also saves delivery drivers unnecessary delays.

ENGINE NOISE

Commend ensures smooth, trouble-free communication even with loud lorry engines running in the background. This is made possible by special background noise suppression.

INSTRUCTIONS FOR DRIVERS

Delivery drivers need clear instructions directing them to the appropriate loading bay. On large premises, signs can be complemented by digital displays at the entrance gates that indicate to drivers where to go. Everything is managed and controlled centrally with the help of Commend solutions.

Column range

Commend columns are available in a variety of versions up to a height of 238 cm. The larger-sized version accommodates up to two Intercom stations (for lorries and passenger vehicles).





SOLUTIONS FOR PASSENGER LIFTS AND FREIGHT LIFT FACILITIES EN 81 COMPLIANT LIFT EMERGENCY CALL SYSTEM

"What happens in case of a technical fault or in an emergency situation?" This is a question every company with lift facilities will have to face — and find a proper answer to. Lift emergency call systems by Commend provide a competent solution that meets the highest personal safety standards. Customisable and easy to install, the system delivers voice messages with ultimate clarity in brilliant speech quality.

Round-the-clock help at the push of a button

Commend communication technology connects calls much more quickly than conventional emergency call equipment. In case a call is queued, a pre-recorded message reassures the persons in the lift car and helps to avoid panic situations.

Integration with control centres

Emergency call recipients (e.g., a local or regional control room) can be defined as needed. In case a call cannot be answered immediately, it can be forwarded to other Intercom stations, telephones or mobile devices.

Flexible connection technology

Individual components can be integrated into the Commend communication platform either via the IP network (IoIP/SIP) or using digital 2-wire connections. Upon request, any combination of these can be implemented as well. Any existing cable lines can be reused, which eliminates extra costs.

The solution can be integrated in the Commend system or SIP-PBX systems as needed.



Standard compliant function self-checks

According to European standards, lift facilities must be fitted with an emergency call point. The regulations require an inspection and test call to be performed on each call point at regular three-day intervals. The Commend solution does this fully automatically, saving valuable staff and time resources.

An additional loudspeaker-to-microphone and line monitoring function ensures the permanent readiness of the stations.

What is more, the call button can also perform a self-check and simulate an emergency call to make sure everything is working properly.

In case a self-test fails, the system instantly notifies the technical staff in charge.

Since all self-tests are logged, they can be audited later on if necessary.





Lift emergency call station

Y-LIFT-S | Station with remote-testable call button and two rear-illuminated status indicating pictograms. V-2A front panel for integration into lift control panels.



Functional emergency call station for lift car roofs and lift shafts

EF 870AEN81 | Station with robust steel housing; colour: Signal Yellow.



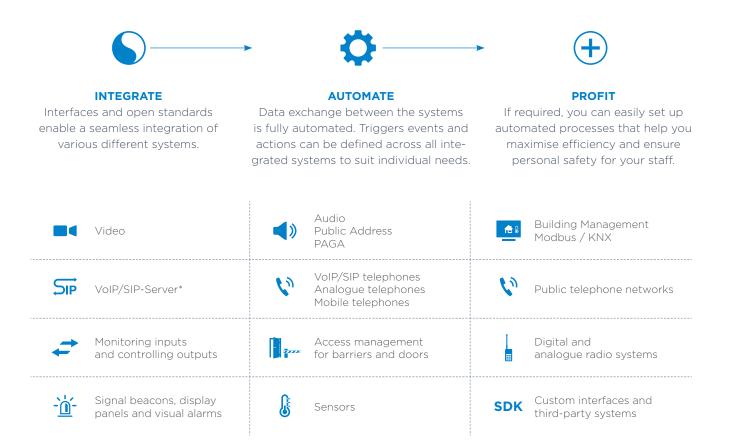
Flexible modules for lift cars

Commend also provides a range of optional modules in various form factors and scopes that can be integrated into the system upon installation or retrofitted later on.

In most cases existing loudspeakers, microphones or display units (pictogram panels) can be connected to a new module to retain the lift manufacturer's overall design.

INTERFACES BETTER TOGETHER

When it comes to security and communication, the smooth interplay of all integrated components is essential. Reliable data exchange allows processes to be mapped across different systems to leverage their full potential. Commend Intercom systems support open standards such as OPC, SIP and TETRA, DMR, Modbus, KNX, SNMP and others, offering a variety of well-tested interfaces to third-party systems.



TECHNOLOGY PARTNERS

You can interface your Commend system with third-party systems of leading manufacturers**. Options range from video management systems to access control equipment and PA solutions.



* SIP-PBX compatibility: Digium | Cisco | AVM | Alcatel | Mitel | Siemens | Kamailio | Innovaphone | Unify | 3CX | Starface | Aastra | Elmeg | Avaya | FreeSWITCH. ** All products or company names mentioned on this web site are brands or registered trademarks of their respective owners.

SERVER SOLUTIONS INTERCOM SERVERS WITH BUILT-IN HIGH AVAILABILITY

The world's first 100% software-based Intercom Server by Commend (currently Version 9) is designed specifically to integrate seamlessly into the flexible, dynamic world of virtual IT environments.

It is here that the Software Intercom Server comes into its own, providing the same functionality as its hardware-based counterparts at attractively low initial and operating costs. As a 'fellow inhabitant' of the virtual server landscape without the need for any separate hardware, the Software Intercom Server is very easy to maintain and requires no extra staff resources.



Embedded into the virtual server infrastructures, the server can take advantage of their typically high-quality redundancy, backup and security mechanisms. This automatically ensures the essential high availability that has become a hallmark of Commend solutions.

Commend's powerful all-in-one Intercom Appliance Series S6 and Series S3 now brings to regular server rooms what used to be limited to specialised IT environments: the full spectrum of powerful VirtuoSIS technology, and more – all in a compact all-in-one hardware and software package.



Software Intercom Server

Up to 1,120 IP subscriber units per server

Virtuosis Server series for virtualised IT infrastructures using VMWare or Microsoft Hyper-V.



Up to 448 IP subscriber units per server Mono-socket rack server (1U), with Virtuosis server software.



Intercom Server S3 Up to 112 IP subscriber units per server Wall-mounted server with Virtuosis server software.



Intercom Server GE 800 Up to 896 IP subscriber units or 56 digital 2-wire subscriber units per server

Rack-mounted server (3U) with PRO 800 server software, 14 card/plug-in slots for additional subscribers, inputs/outputs, interface ports (e.g., audio for mobile radio gateway).

A COMMON GOAL

Commend has a tradition of passionate commitment to security, both physical and digital. Whatever the size of your Commend system and your underlying network infrastructures, regardless of how it keeps growing and changing – IT security for our customers and users is a business-critical priority. Moreover, it is a cooperative effort that requires collaboration along the entire product supply chain, from the vendor to the end-user.



Obviously, there is no easy "set and forget" solution. IT security is not a static condition but an evolving process that requires active management.

At Commend we are working continuously to fortify our systems, products and solutions against cyberattacks and to provide multi-level protection for network-based services.

For further details about our technical IT security measures please refer to our IT Security Guidelines or contact your local Commend representative.

150+ COMMEND FUNCTIONS 45+ YEARS OF EXPERIENCE ONE POWERFUL PLUS



COMMEND WORLDWIDE

23 subsidiaries/partners operating in more than 59 countries. More than 500 employees worldwide.



SECURE COMMUNICATION SYSTEMS BY COMMEND

Can you imagine a system that millions of people rely on every day, where every word has to count? That's the world of Commend! Secure, reliable communication is our passion. We are a global market leader with more than 45 years' experience in speech transmission. In addition to Intercom and video connections that interface with third-party systems we also provide products that open up new possibilities for integrated solutions. Commend is the first choice worldwide when it comes to secure and professional communication systems.

If you want to learn more about our Industry solutions, feel free to contact us.



Quality-tested. Reliable. Welldesigned. COMMEND products are developed and manufactured by Commend International in Salzburg, Austria. Our development and manufacturing processes are certified as per EN ISO 9001:2015.

Technical details are provided for descriptive purposes only and do not constitute a legally binding guarantee of product properties. IoIP*, OpenDuplex* and Commend* are registered trademarks of Commend International GmbH. All other brand and product names are trademarks or registered trademarks of their respective owners and are not explicitly marked as such in the text.

industry.commend.com

SF-Industry-EN-V10-0919