Product Catalogue 2009

VINGTOR STEENHANS
ZENITEL GROUP

when**communication**is**critical**

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Zenitel Marine

- the world's leading expert on Integrated Marine Data & Communication Systems

Zenitel Marine is world renowned for its extensive knowledge in the design, construction, installation and maintenance of integrated marine communication systems. The company, having served the maritime industry for such a long period of time, has an impressive portfolio and provides cutting edge solutions to vessels worldwide under the internationally renowned brand names of VINGTOR® and STEENHANS™. These brands together provide Zenitel Marine with a reputation for the most flexible, reliable and superior quality communication systems available today.

Meeting your regulatory requirements
All Zenitel Marine products are tested according to IEC 60945, IEC 60533 and IACS among other standards, and comply with SOLAS regulations and codes relevant for on-board communication systems. Zenitel Marine delivers systems in accordance with the rules of all major classification societies.

For all your sales & after service requirements
Zenitel Marine is a specialist provider of spare parts, repairs, maintenance contracts and refit solutions. Responsibility and availability are our guidelines and customer support and service a first priority.

A worldwide network

With a worldwide network of highly skilled technical personnel in over 55 countries, Zenitel Marine offers the international shipping industry advanced communication and safety solutions in all parts of the world.

VINGTOR

The VINGTOR IP Communication System

Using VINGTOR ACM as the back-bone, Zenitel Marine offers a complete integrated system for Communication, Data, Safety and Entertainment. Based on IP technology, VINGTOR ACM Advanced unites and strengthens a vessel's safety system. With the VINGTOR solution, reduced cost in infrastructure, more efficient operation, improved user experience and the confidence of type approved and certified systems are achieved.

External interface and billing solution
The VINGTOR ACM solution is cost effective and flexible with a wide range of external interface options ranging from ISDN, analogue, IP, VSAT and GSM. The VINGTOR Billing solution allows for easy management and administration of external telephone calls. Via an intuitive Web interface, access is given to set credit limits, restrictions, calling fees and to create invoices for external telephone calls.

Remote Functions
VINGTOR ACM's advanced network monitoring and super-vision function allows onshore IT personnel to get real time status information about the onboard communications system. System status, user actions and faults are logged and information can be distributed via open IP protocols such as SNMP, Syslog, e-mail, or SMS. Onshore IT personnel can log-on to the vessels communications system to do remote service on our systems.

Structured Cabling System
Onshore IT personnel can log-on to the vessels communications system to do remote service on our systems. The VINGTOR ACM Advanced Integrated System provides a type approved structured cabling system (CAT7) as the backbone. With its advanced wiring and patch solution the system supports - all in one cable. This means a significant reduction in cabling infrastructure where a single CAT7 cable can provide telephone (analogue or IP), general alarm, public address, internet access and IP TV to a cabin.

Integrated Public Address and General Alarm Solution
The VINGTOR Integrated PA and GA solution utilizes both VINGTOR's unique SPA technology with 100V speaker loops, as well as advanced VINGTOR ACM audio and communication technology. The ACM solution provides combined low- and loud speaking communication terminals for wheelhouse, control rooms, cabins, outdoor deck, and the engine room. The solution is also type approved as integrated telephony, PA and GA units. Together, the solutions are extremely cost effective, especially where traditional 100V speaker loops are used together with the integrated ACM units to cover areas where PA and GA is required onboard the ship.

Wireless IP DECT Communication
The ACM system supports a wide range of traditional, IP and wireless communication terminals made for the ship environment. IP DECT base stations connect directly to the ACM exchange over IP providing a very cost efficient solution to deploy a wireless network onboard. The DECT telephones, IP telephones and intercom terminals have all access to the same set of ACM features. Users will be able to enjoy the benefits of one user experience and seamless mobility as they will always be contactable regardless where they are on the ship.

Special project offering:

IP-TV Entertainment
Entertainment on board ships is an essential factor for the enjoyment of the people working there. With IP TV installed, ships crews will be able to watch TV 24 hours a day. This not only means added enjoyment, but also a satisfied crew. As an additional security measure, the IP CCTV can also be integrated with the IP TV for surveillance while in the cabin.

Surveillance at sea with IP CCTV
By fully integrating with CCTV systems, ACM provides complete video and audio surveillance on every part of the ship as required. CCTV cameras at a specific point can be automatically triggered to provide both audio and video communication between caller and operator.

Traditional to modern - a number of possibilities for ship communication

Zenitel Marine has been setting the standard for both basic and more comprehensive communication systems for Marine use for over 60 years. The company is capable of meeting all types of customer needs. Over time, Zenitel Marine will continue to offer and support traditional systems as well as provide modern IP solutions suitable to cover all communication needs for all type and size of vessel.

Batteryless Telephone System (VSP)
This system is VINGTOR's modern version of the traditional Sound Powered telephone. Independent of the vessels power supply, it fulfills the demands for emergency communication between vital positions on board. By using a dynamic microphone and receiver inserts, the VSP system can obtain four times as loud speech and listening levels as the ones found in a purely sound-powered system. The system components have a versatile range of light weight but robust and corrosion resistant stations for all on-board environments. They are available for panel, desktop or bulkhead mounting. VSP is certified by DNV, LR, CCS, RINA, RMRS, CRS, GL, ABS.

Sound Reception System (VSS)
The VSS is an acoustic, electronic navigational aid that enables the officer on watch at a 'closed bridge' to hear sound signals from other ships or foghorns that are audible outside the ship - when standing inside a totally enclosed bridge space. The system is manufactured according to SOLAS Rules and Regulations and is tested according to EN60945. VSS is certified by DNV, RINA, BV, RMRS, CCS, CRS and GL.

Talk-Back System (ETB/CTB)
VINGTOR Talk-Back systems have been proven as extremely reliable and high quality products. Master Stations with 2, 5, 10 and 20 lines are available with substations for both indoor, outdoor and noisy locations. The systems are tested according to EN60945. ETB / CTB are certified by DNV, RMRS, CCS and CRS.

Public Address System (SPA)
The SPA series is specially designed to meet the demands and requirements for a cost-effective Public Address (PA) and General Alarm (GA) system according to SOLAS Rules and Regulations for Marine use. SPA systems are, as standard, delivered in versions of 120, 240 and 400 watt power output with 6000 watt as a maximum. The systems also have 6 zone selection plus 'All Call' as standard. Delivered in steel racks from 12 HU and up to 40 HU, depending on the number of power amplifiers installed, the system is tested according to EN60945 and is certified by DNV, CCS and CRS.

Telephone System (ACM-M-A)
VINGTOR Analogue systems are a PABX made for the Marine environment. The exchange is based on the well known ACM solutions and the latest developments. The exchanges are available in different sizes from 24 to 72 subscribers and come equipped with connections to PA amplifiers and different external gateways. Remote management and maintenance is possible by using IP and Web technologies. ACM-M-A is certified by DNV, RINA, CCS and CRS.

Master Clock System (MCS)
The VINGTOR Marine Master Clock is an ideal solution for the distribution of both Local and UTC time onboard ships. The system is delivered with a wide range of different Slave Clocks with easy to install cabling and calibration, signal receivers, a RS232C/RS485 interface and Alarm outputs. Includes automatic summer – winter time change-over.

Entertainment system
The VINGTOR entertainment solution provides a complete entertainment system for ships. The solution consists of two main parts – a Naval TV/radio satellite system and a TV/radio onboard distribution system. At its most basic level, VINGTOR's Naval Satellite Systems feed digital TV and radio signals from the satellite into conventional TV and radio distribution systems. Shipped with a separate control unit, each system includes gyro and GPS motion controlled satellite antenna's made for the marine environment.

Our products satisfy the needs on all types of vessels

Ocean liners

Tankers

Offshore vessels

Ferries

Navy vessels

Container ships

10 Reasons why You should trust Zenitel Marine:

1. World wide network
2. Know-how and experience
3. Service and maintenance
4. Wide product portfolio
5. Cutting edge solutions

6. Excellent audio quality
7. Scalability and modularity
8. Always operational
9. Backwards compatible
10. Compliance with all major marine classification societies

Zenitel Marine
– serving the maritime business since 1946

Batteryless Telephone System

The VSP system is independent of the vessels power supply and fulfils the demands for emergency communication between vital positions on board.

The system has a versatile range of light but robust and corrosion resistant stations for all on-board environments. The different VSP stations can be delivered for panel, desktop or bulkhead mounting.

The VSP system can be delivered as:
- 12 Way system consisting of up to 12 main stations with selector switch for selective calling between all connected stations
- 20 Way (M) By inserting an additional group selector in each station the system can be enlarged up to 20 extensions

Features

- Provides emergency communication independent of vessels power supply

- Excellent speech quality

- Noise compensated microphones

- Built in or separate relay for operation of signal units

- Provides output for 24 VDC to external equipment

- Supports headset directly connected to stations or via plug box

- Supports a wide range of stations for the ship environment

WHEELHOUSE
VSP-211-L

ACCOMMODATION
VSP-213-L +VSPK

ENGINE ROOM
VSP-36-PEL
CD-4
EHS-24

STEERING GEAR
VSP-223-L
VSP-36-PEL
EHS-24

24 VDC for signal devices

ECR
VSP-223-L

The system is tested according to EN60945, and is type approved by DNV, LR, Rina, RMRS, CCS, CRS, ABS and GL.

VINGTOR

VSP-211-L

MAIN STATION, PANEL MOUNTED
- Is delivered with 12 positions selector switch
- Is equipped with the built-in system amplifier w/capacitor battery
- Has terminals for auxiliary 24V DC when used as Common Battery Telephones. To avoid noise problems, the 24 VDC must be supplied via a DC/DC converter
- Bulkhead mounted by use of corresponding on-wall metal box, type MBOKS
- Is suitable for installation in wheelhouse and control room
- *Dimension (mm): 238W x 205H x 137D (w/ handset and built in depth)*
- *Weight: 1.3 kg*
- *IP-44*

VSP-223-L

MAIN STATION, PANEL MOUNTED W/BUILT-IN RELAY CIRCUIT - 24V DC
- Is delivered with 12 positions selector switch
- Has alarm stop button
- Has noise compensated microphone
- Has optical LED call indication at front (in addition to audible call signal)
- Bulkhead mounted by use of corresponding on-wall metal box, type MBOKS
- Suitable for installation in control rooms and noisy areas like steering gear, engine- and thruster rooms etc.
- *Dimension (mm): 238W x 205H x 137D (w/ handset and built in depth)*
- *Weight: 1.3 kg*
- *IP-44*

VSP-122

MAIN STATION, WATERTIGHT
- Is for bulkhead mounting
- Has 12 positions selector
- For use at bridge wings and open deck areas
- *Dimension (mm): 220W x 220H x 185D (w/ handset)*
- *Weight: 2.0 kg*
- *IP-66*

VSP-213-L

MAIN STATION, PANEL MOUNTED, INDOOR UNIT
- Is delivered with 12 position selector switch
- Can be desk or wall mounted by use of a corresponding wooden cabinet, type VSPK.
- Can be wall mounted by use of a corresponding on-wall metal box, type MBOKS
- Is suitable for installation in wheelhouse, control room or accommodation
- *Dimension (mm): 238W x 205H x 137D (w/ handset and built in depth)*
- *Weight: 1.3 kg*
- *IP-44*

VSP-122P

MAIN STATION, PORTABLE WATERTIGHT
- Is portable with 10 m cable and plug.
- Has 12 positions selector
- Has watertight housing
- Has a carry handle and 5 meter cable with 16 pins Amphenol plug
- To be used together with CD-16 at bridge wings and open deck areas.
- *Dimension (mm): 220W x 220H x 185D (w/ handset)*
- *Weight: 2.6 kg*
- *IP-66*

VINGTOR

VSP-211M-L
MAIN STATION, PANEL MOUNTED, W/H UNIT
- 20 stations system
- Equipped with a built-in system amplifier with capacitor battery
- Terminals for auxiliary 24 VDC when used as Common Battery Telephones. To avoid noise problems, the 24 VDC must be supplied via a DC/DC converter
- Optical LED call indication in front
- Delivered for flush- or bulkhead mounting by use of an on-wall metal or wooden box.
- Suitable for installation in wheelhouse and control rooms
- *Dimension (mm): 238W x 205H x 137D (w/ handset and built in depth)*
- *Weight: 1.3 kg*
- *IP-44*

VSP-212M-L
MAIN STATION, PANEL MOUNTED W/BUILT-IN RELAY CIRCUIT - 24V DC
- 20 stations system
- Equipped with built-in relay latch timer for activation of external visible or audible 24V DC signal units
- Alarm stop button
- Noise compensated microphone
- *Dimension (mm): 238W x 205H x 137D (w/ handset and built in depth)*
- *Weight: 1.3 kg*
- *IP-44*

VSP-22M
MAIN STATION, WATERTIGHT
- 20 stations system
- For bulkhead mounting
- Watertight housing for use at bridge wings and open deck areas
- *Dimension (mm): 220W x 220H x 185D (w/ handset)*
- *Weight: 2.4 kg*
- *IP-66*

VSP-213M-L
MAIN STATION, PANEL MOUNTED, INDOOR UNIT
- 20 stations system
- Optical LED call indication at front
- Delivered for flush- or bulkhead mounting by use of an on-wall metal or wooden box.
- Can be desk or wall mounted by use of the wooden cabinet, type VSPK.
- Can be wall mounted by use of a corresponding on-wall metal box, type MBOKS
- Is suitable for installation in accommodation and control rooms
- *Dimension (mm): 238W x 205H x 137D (w/ handset and built in depth)*
- *Weight: 1.3 kg*
- *IP-44*

Note! All stations except from VSP-122/P and 22M are delivered with built-in call light (LED)

ADDITIONAL EQUIPMENT FOR VSP

CD-4
PLUG-BOX WATERTIGHT
- For portable unit in VSP / PRO700 and ACM systems.
- Wall mounting
- *Dimension (mm): 80W x 110H x 63D*
- *Weight: 0.35 kg*
- *IP-66*

CD-16
PLUG-BOX FOR VSP-122P
- Watertight plug box.
- Designed to be used together with VSP-122P, portable stations with station selector switch.
- Socket with dust cap.
- Delivered for bulkhead mounting.
- Suitable for installation in noisy or deck areas.
- *Dimension (mm): 224W x 80H x 63D*
- *Weight: 0.6 kg*
- *IP-66*

MBOKS
METAL BOX WHEN WALL MOUNTED
- On-wall box designed for stations in VSP and Talk-Back systems.
- *Dimension (mm): 244W x 138H x 76D*
- *Weight: 1.0 kg*

VSPK
WOODEN CABINET WHEN WALL MOUNTED
- Wooden box designed for desk or on-wall mounting of accommodation stations
- VSP-213-AL and VSP-213-L
- *Dimension (mm): 260W x 162H x 98D*
- *Weight: 0.55 kg*

VSP-36-PEL
HEADSET WITH BOOM MICROPHONE WITH 10M CABLE
- Headset for connection direct to a VSP station
- Has ON/OFF switch-box with belt clip
- Standard with 10 m cable
- To be used in noisy areas
- *Weight: 1.1 kg*
- *IP-54*

VSP-36-PELP
PORTABLE HEADSET WITH BOOM MICROPHONE WITH 10M CABLE AND PLUG
- Portable headset
- Has ON / OFF switch box with belt clip
- Standard with 10 m cable and 4 pin Amphenol plug
- To be used together with CD-4 in noisy areas
- *Weight: 1.2 kg*
- *IP-54*

VINGTOR

MT9
THROAT MICROPHONE FOR VSP-36-PEL / PELP

IRR-VSP-24
RELAY BOX F/ALARM 24V DC, WATERTIGHT
• Separate relay timer unit for operation of 24V DC visible and/or audible signal units
• Built-in timer circuit. Signalling time is 20 sec. as standard
• Alarm stop button
• Delivered for bulkhead mounting
• Suitable for installation in noisy areas
• *Dimension (mm): 80W x 110H x 63D*
• *Weight: 0.4 kg*
• *IP-66*

IRR-VSP-220
RELAY BOX F/ALARM 220V AC, WATERTIGHT
• Separate relay timer unit for operation of 220V AC visible and/or audible signal units
• Built-in timer circuit. Signalling time is 20 sec. as standard
• Alarm stop button
• Delivered for bulkhead mounting
• Suitable for installation in noisy areas
• *Dimension (mm): 224W x 80H x 63D*
• *Weight: 0.6 kg*
• *IP-66*

IRR-VSPM-220
RELAY BOX F/ALARM 220V AC SIGNAL UNIT, WATERTIGHT
• Separate relay timer unit for operation of 220V AC visible and / or audible signal units.
• Built-in timer circuit. Signaling time is 20 sec. as standard
• Alarm stop button
• Delivered for bulkhead mounting
• Suitable for installation in noisy areas
• *Dimension (mm): 224W x 80H x 63D*
• *Weight: 0.6 kg*
• *IP-66*

SPARES

VSP211S1
STANDARD SET OF SPARES FOR 12-WAY SYSTEM

VSP211MS
STANDARD SET OF SPARES FOR 20-WAY SYSTEM

MANUALS

VSPIS
INSTALLATION & SERVICE MANUAL,
BATTERYLESS TELEPHONE SYSTEM, 12-WAY

VSPMIS
INSTALLATION & SERVICE MANUAL,
BATTERYLESS TELEPHONE SYSTEM, 20-WAY

Note! See chapter SIGNAL UNITS for signal units that can be connected to the VSP system. Signal units is used to provide visual call indication in noisy areas

VSP EX Units

An Intrinsically Safe VSP Set consist of a buffer unit mounted in safe area and a main station, with optional headset and call signal, mounted in the hazardous area.

The buffer unit can be delivered in different versions, depending on how many main stations should be called.

The buffer unit must be powered by 24V DC.

To make a call from a main station in the hazardous area to VSP stations in the safe area, turn the selector switch to wanted extension number and press the call button. Lift the handset and keep the handset button depressed during conversation.

The VSP EX system is type approved by Rina, CRS and ABS. The system is ATEX approved by Nemko according to EX II G EEx ia II T6.

Features

- For use in hazardous areas

- ATEX approved

- Excellent speech quality

- Easy to use

- Support up to 12 Main stations in Ex II G 1 area

- 4 x 24V DC outputs to Ex signal units.

- Additional 24V DC outputs to Ex signal units on request

- 4 - 12 call signal outputs to safe area depending on buffer version

- Require 24V DC to operate

- Optional headset connected directly to main station.

- Compatible with VSP 12-ways system

![VINGTOR logo]
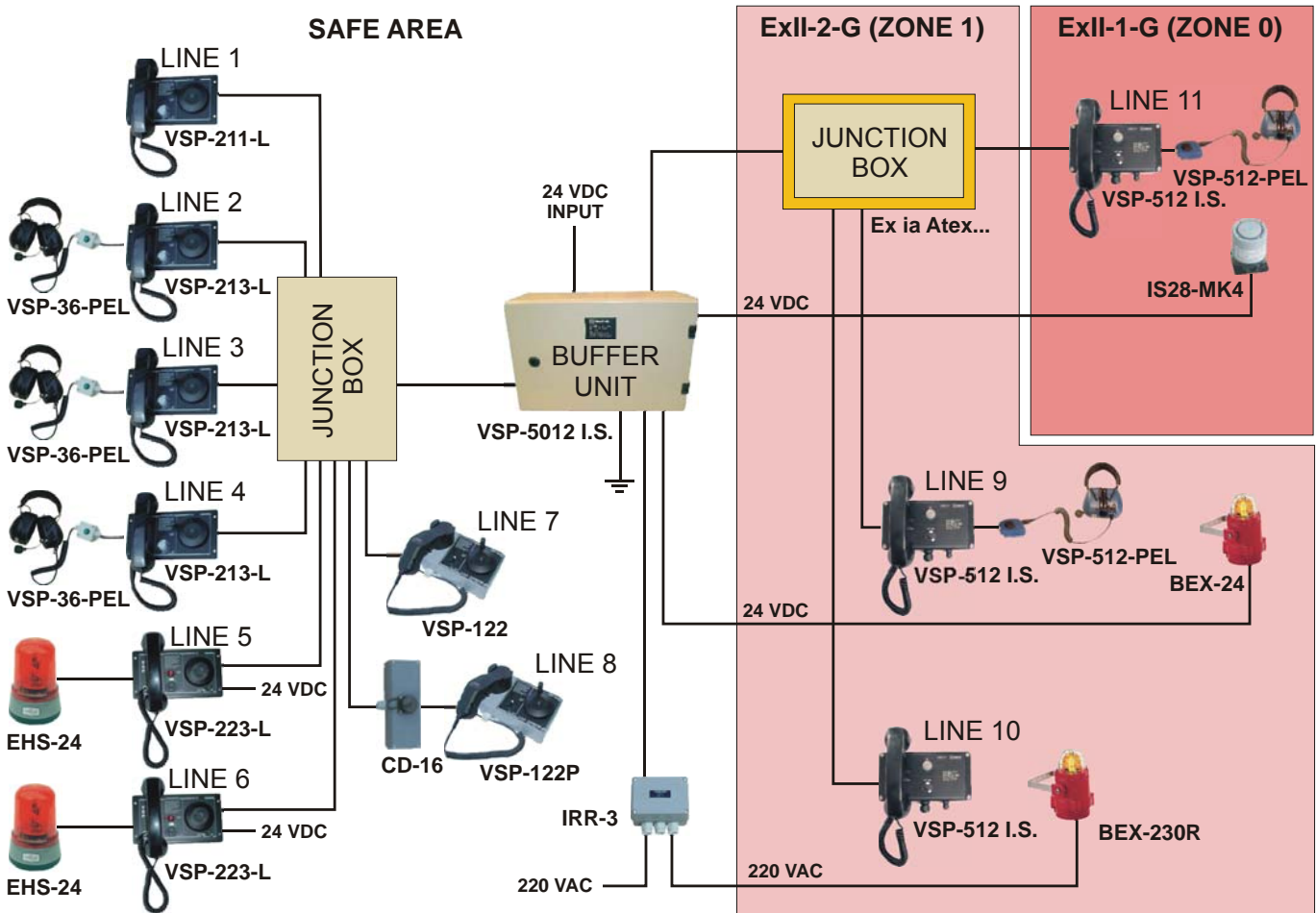
BUFFER UNIT FOR ZONE 1 - EX II 2G EEx ia IIC T6

VSP-5004

EX BUFFER UNIT IN SAFE AREA, SELECTIVE CALLING TO 4 STATIONS. SIGNAL OUTPUT FOR 4 STATIONS IN HAZARDOUS AREA

- Intrinsically safe buffer unit for mounting in safe area
- Support up to 12 main stations VSP-512
- 4 x 24 VDC outputs to Ex signal units
- 4 call signal outputs to safe and EX area
- Delivered in a metal cabinet for wall mounting
- *Dimension (mm): 450W x 300H x 200D*
- *Weight: 11.0 kg*

VSP-5008

EX BUFFER UNIT IN SAFE AREA, SELECTIVE CALLING TO 8 STATIONS. SIGNAL OUTPUT FOR 4 STATIONS IN HAZARDOUS AREA

- Intrinsically safe buffer unit for mounting in safe area
- Support up to 12 main stations VSP-512
- 4 x 24 VDC outputs to Ex signal units
- 8 call signal outputs to safe and EX area
- Delivered in a metal cabinet for wall mounting
- *Dimension (mm): 450W x 300H x 200D*
- *Weight: 11.0 kg*

VSP-5012

EX BUFFER UNIT IN SAFE AREA, SELECTIVE CALLING TO 12 STATIONS SIGNAL OUTPUT FOR 4 STATIONS IN HAZARDOUS AREA

- Intrinsically safe buffer unit for mounting in safe area
- Support up to 12 main stations VSP-512
- 4 x 24 VDC outputs to Ex signal units
- 12 call signal outputs to safe and EX area
- Delivered in a metal cabinet for wall mounting.
- *Dimension (mm): 450W x 300H x 200D*
- *Weight: 11.0 kg*

BUFFER UNIT FOR ZONE 0 - EX II 1G EEx ia IIC T6

VSP-5004/1

EX BUFFER UNIT IN SAFE AREA, SELECTIVE CALLING TO 4 STATIONS. SIGNAL OUTPUT FOR 1 STATIONS IN HAZARDOUS AREA

- Intrinsically safe buffer unit for mounting in safe area
- Support up to 12 main stations VSP-512
- 4 x 24 VDC outputs to Ex signal units
- 4 call signal outputs to safe and EX area
- Delivered in a metal cabinet for wall mounting.
- Delivered with zener barrier for 24 VDC sounder IS28-MK4 in zone 0.
- *Dimension (mm): 450W x 300H x 200D*
- *Weight: 11.0 kg*

VSP-5004/2

EX BUFFER UNIT IN SAFE AREA, SELECTIVE CALLING TO 4 STATIONS SIGNAL OUTPUT FOR 2 STATIONS IN HAZARDOUS AREA

- Intrinsically safe buffer unit for mounting in safe area
- Support up to 12 main stations VSP-512
- 4 x 24 VDC outputs to Ex signal units
- 4 call signal outputs to safe and EX area
- Delivered in a metal cabinet for wall mounting.
- Delivered with 2 x zener barriers for 24 VDC sounder IS28-MK4 in zone 0.
- *Dimension (mm): 450W x 300H x 200D*
- *Weight: 11.0 kg*

TELEPHONES FOR ZONE 0 & 1 - EX 1G EEx ia IIC T6

VSP-512

INTRINSICALLY SAFE MAIN STATION WITH 12 POS. SELECTOR SWITCH FOR BULKHEAD MOUNTING IN HAZARDOUS AREA

- Suitable for mounting in hazardous areas Ex II 1G (Zone 0)
- Delivered with a 12 position selector switch and a call button
- Used together with buffer unit mounted in safe area
- Delivered for bulk-head mounting
- *Dimension (mm): 220W x 208H x 170D (w/ handset)*
- *Weight: 1.8 kg*
- *IP-66*

VSP-512-PEL

INTRINSICALLY SAFE HEADSET FOR CONNECTION TO VSP-512 W WITH ON/OFF SWITCH BOX, BELT CLIP AND 10 M CABLE

- ON/OFF switch box with belt clip
- Standard with 10 m cable
- To be used in noisy areas
- *Weight: 0.5 kg*
- *IP-54*

VSP-512-EXT

10 M EXTENSION CABLE FOR VSP-512-PEL

Note! See chapter SIGNAL UNITS for signal units that can be connected to the VSP system. Signal units is used to provide visual call indication in noisy areas

MANUALS

VSP-EXIU

INSTALLATION & USER MANUAL, BATTERYLESS TELEPHONE SYSTEM (VSP EX)

VINGTOR

Pro700 Basic Intercom System

The Pro700 system is a cost efficient and easy to use communication system for ships. The system does not use a central exchange. All stations are individually programmable and powered from a central power supply.

The system supports upto 40 stations (16-20 recommended) and one speech channel.

The system provides an extensive range of standard and optional features supporting both low- and handsfree loud-speaking conversations.

The system has a wide range of robust and weather resistant stations and signal units for all on-board environments.

Note! The PRO700 system is tested and fulfils the EMC directive according to EN 50081-1, EN 50082-2 and IEC 61000-6-3/6-4.

The PRO700 system is not type approved or tested according to EN 60945.

Maximum cable distance:

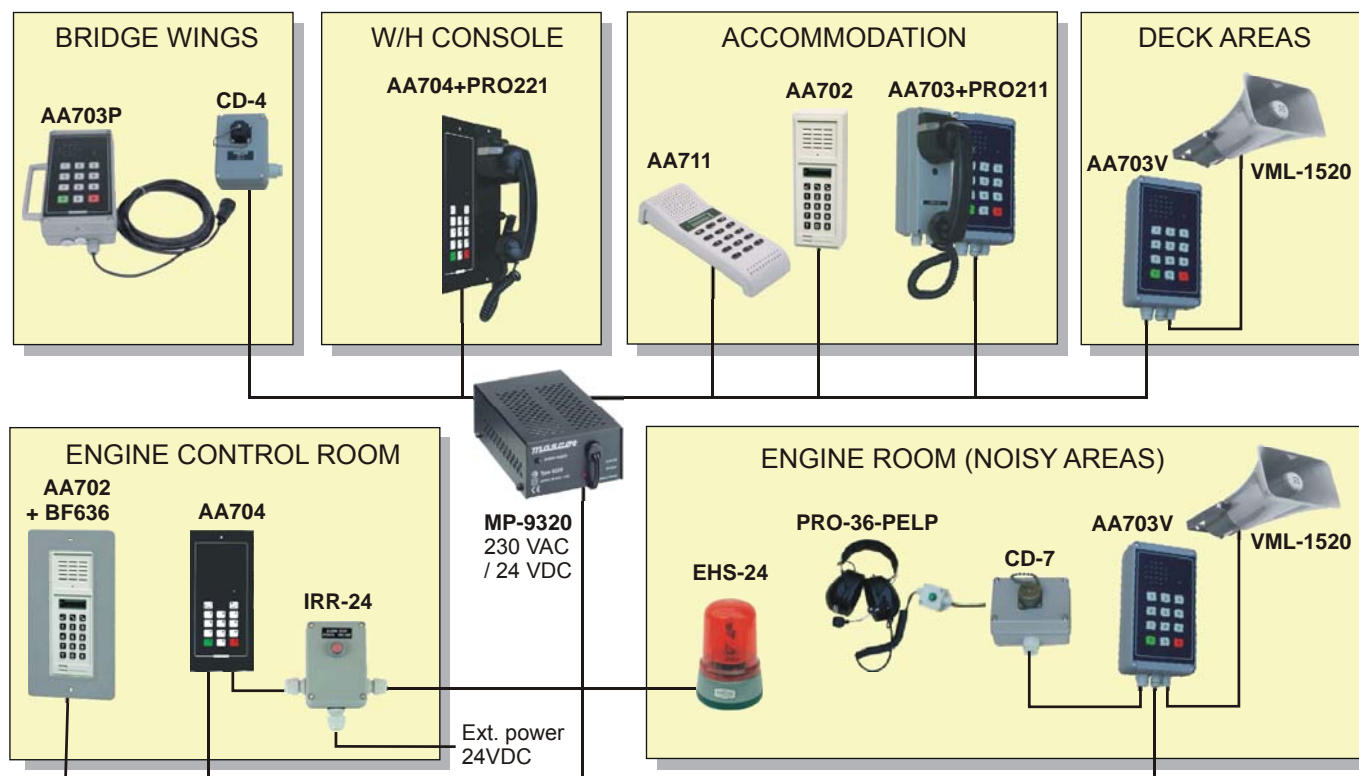Cable specification:
- 0.6 mm diameter
- 120 nF/km (standard cable quality)

Max cable run: 700m
Max distance from power supply: 500m

Features

- Max capacity of 40 stations, recommended system size is 20 stations

- Standard power supply, 24-27V DC, 4A

- No system exchange

- Priorities

- Cabin stations with privacy and display

- All Call and two Group Calls with auto answer back

- One program distribution channel

- Simple installation, loop cabling

- Hands-free conversation, semi duplex

- Remote control of external audible or visible signal devices

- Interface possibilities to Public Address and PABX (only one preprogrammed number)

- Amplifier (10W) to be built into stations AA703 and AA704, local 24V DC supply needed

- Additional 20 ohm loudspeaker

BRIDGE WINGS — AA703P, CD-4

W/H CONSOLE — AA704+PRO221

ACCOMMODATION — AA702, AA703+PRO211, AA711

DECK AREAS — AA703V, VML-1520

ENGINE CONTROL ROOM — AA702 + BF636, AA704, IRR-24

MP-9320 230 VAC / 24 VDC

ENGINE ROOM (NOISY AREAS) — EHS-24, PRO-36-PELP, CD-7, AA703V, VML-1520

Ext. power 24VDC

AA704
CONSOLE MASTER STATION
FLUSH MOUNTED

- The AA 704 station is designed for console mounting or wall mounting using back box 6020 for flush mounting and 6030 for surface mounting
- The keyboard foil in UV-cured PVC is resistant to numerous fluids and chemicals
- The keyboard is equipped with back-light and the light intensity can be adjusted
- The station is ideally suited as "control desk station" in correctional institutions, prisons, police stations, marine environment etc.
- The station has an internal 3 Watt amplifier and the speaker volume is adjustable in four levels with switches located inside the station
- An external 10 Watt power amplifier unit FC740 can easily be connected where additional output volume is needed
- The AA704 offers a remote control output via a built-in relay, which can be used to drive external call indicators (lamp/buzzer) or for general remote control facility activated by the calling subscriber
- Handset PRO221 can be delivered as option
- *Dimension (mm): 125W x 280H x 50D*
- *Weight: 0.4 kg*
- *IP-44*

AA706
CLEAN ROOM STATION
FLUSH MOUNTED

- The Clean Room Station type AA706 is designed for hospital operating theatres, patient solitary confinements and other clean rooms
- The station front foil is made with Microban technology which provides dependable and constant protection against bacterial contamination
- The station foil is resistant to chemicals and cleaners, and have an excellent scratch resistance. When flush mounted in the wall and sealed along the rim, there is no risk of fluid penetration into the station
- The station has a full digit keyboard and have access to all features offered by the Pro700 intercom system
- The station include a sensitive microphone and a loudspeaker with 3W amplifier
- The line and station status is indicated by a tri-color LED
- *Dimension (mm): 124W x 280H x 50D*
- *Weight: 0.9 kg*
- *IP-65 front access*

AA711
DESK/WALL MASTER STATION WITH DISPLAY

- Although only the size and weight of a conventional telephone handset, the AA711 combines all essential functions needed for effective internal communication: loud speaking hands-free, soft-speaking confidential, and total privacy
- Each station in the Pro700 system is individually programmable, giving full flexibility regarding features and extension numbers
- The AA711's display gives access to features like caller identification and message/absence information
- The cabinet of the AA711 station is cast in high-grade, impact-resistant ABS plastic with a satin finish
- The AA711 station is designed for desk use or wall-mounting, using a handy wall bracket GF732
- *Dimension (mm): 78W x 214H x 64D*
- *Weight: 0.25 kg*

GF732
WALL BRACKET FOR AA711
- In ABS plastic
- *Dimension (mm): 64W x 112H x 37D*
- *Weight: 50 g*

![VINGTOR logo]

KB171
WALL SOCKET, RJ45, SURFACE MOUNTED
ALWAYS NEEDED FOR AA711
- Needed for AA711 stations
- ABS plastic connection box with 8 pin RJ45 receptor
- *Dimension (mm): 51W x 51H x 22,5D*
- *Weight: 40 g*

BF642
CABLE, 2M SPIRAL, 8 WIRES. RJ45-RJ45
ALWAYS NEEDED FOR AA711
- Needed for AA711 stations

AA702
WALL MASTER STATION WITH DISPLAY
- The AA702 has the same basic features as the desk/wall master station AA711
- The surface mounted station can easily be converted to a flush mounted model by use of a clip-on front plate BF636
- The housing is high-grade, impact resistant ABS plastic
- *Dimension (mm): 80W x 220H x 51D*
- *Weight: 0.35 kg*
- *IP-44*

AA703V
MAIN STATION, WATERTIGHT
- The AA703V is a splash-proof, surface mounted station designed for humid, dirty and outdoor conditions
- Horn speaker VML 1520 can be connected to station
- The front can be removed to allow easy access during installation and service
- The station has an internal 3 W amplifier and the speaker volume is adjustable in four levels with switches located inside the station
- In addition to the built-in loudspeaker, the unit is prepared for connection of an external speaker
- The AA703V offers a remote control output via a built-in relay, which can be used to drive external call indicators (lamp/buzzer) or for general remote control facility activated by the calling subscriber
- Handset PRO211 can be connected as option
- *Dimension (mm): 124W x 244H x 63D*
- *Weight: 0.85 kg*
- *IP-64*

AA703P
PORTABLE MAIN STATION, WATERTIGHT
- The AA703P is a a splash proof station with 10 m. cable and plug, designed for humid, dirty and outdoor conditions
- Horn speaker VML 1520 can be connected to station
- The front can be removed to allow easy access during installation and service
- The station has an internal 3 W amplifier and the speaker volume is adjustable in four levels with switches located inside the station
- The AA703P offers a remote control output via a built-in relay, which can be used to drive external call indicators (lamp/buzzer) or for general remote control facility activated by the calling subscriber
- *Dimension (mm): 124W x 244H x 63D*
- *Weight: 1.45 kg*
- *IP-64*

VINGTOR

CD-4
PLUGBOX 4 PINS
- For portable unit in VSP, PRO700 and ACM systems
- Wall mounting
- *Dimension (mm): 80W x 110H x 63D*
- *Weight: 0.35 kg*
- *IP-66*

RELAY BOXES

IRR-24
RELAYBOX FOR 24V DC SIGNAL UNITS WATERTIGHT
- Built-in timer circuit. 20 sec. signalling time as standard
- Alarm stop button
- Delivered for bulkhead mounting
- Suitable for installation in noisy areas
- For use in PRO700 and VSP systems
- *Dimension (mm): 124W x 244H x 63D*
- *Weight: 0.85 kg*
- *IP-66*

POWER SUPPLIES

MP-9320
POWER SUPPLY 220V AC => 24V DC - 3A
- Switch mode, regulated power supply unit
- Fixed output voltage
- Short circuit proof
- Mains cord with euro-plug
- LED on front
- Mounting brackets available
- *Dimension (mm): 130W x 114H x 50D*
- *Weight: 0.4 kg*

MP-8861
CONVERTER 24/24V DC - 3A
- Switch mode DC/DC converter
- Protected against reversed polarity and over voltage (input)
- Thermal protection, short circuit proof and over voltage protection (output)
- Input and output are electrically separated from chassis. The input is electrically separated from the output
- 6,3 mm push-on terminals (input and output)
- *Dimension (mm): 119W x 135H x 46D*
- *Weight: 0.6 kg*

VINGTOR

ADDITIONAL EQUIPMENT FOR PRO700

Note! When connected to ships 24V DC, MP-8861 is needed

PRO-36-PEL
HEADSET WITH 10 METER CABLE, WITH BOOM MIC.
- Headset for connection to PRO700 units
- Includes switch box with ON/OFF and push-to-talk button with belt clip
- Standard with 10 m cable
- To be used in noisy areas
- *Weight: 1.1 kg*
- *IP-54*

PRO-36-PELP
PORTABLE HEADSET WITH 10 METER CABLE, WITH BOOM MIC AND PLUG
- Headset for connection to CD-7
- Includes switch box with ON/OFF and push-to-talk-button with belt clip
- Standard with 10 m cable and plug 4-pin Amphenol connector
- To be used in noisy areas
- *Weight: 1.2 kg*
- *IP-54*

CD-7
PLUG BOX WATER TIGHT FOR PRO-36-PELP
- A watertight plug box
- Wall mounting
- *Dimension (mm): 110W x 80H x 63D*
- *Weight: 0.4 kg*
- *IP-66*

PRO221
HANDSET, FLUSH MOUNTED
- The handset unit PRO221 is designed to be used together with main station AA704 for flush mounting in consoles
- The built-in loudspeaker in AA704 is disconnected when lifting the handset for private conversation
- *Dimension (mm): 80W x 280H x 125D (w/handset, built in depth 35)*
- *Weight: 0.65 kg*

PRO211
HANDSET, WALL MOUNTED
- The handset unit PRO211 is designed to be used together with main station AA703 and made for wall mounting
- The built-in loudspeaker in AA703 is disconnected when lifting the handset
- *Dimension (mm): 80W x 240H x 155D (w/handset)*
- *Weight: 0.9 kg*
- *IP-44*

![VINGTOR logo]

BF636
FRONT PLATE FOR FLUSH STATIONS
- The front plate unit BF636 is designed to be used together with main station AA702
- The clip-on plate is used to flush mount the AA702 station
- *Dimension (mm): 140W x 280H x 54D (w/handset)*
- *Weight: 0.05 kg*

BC735
MULTI PURPOSE UNIT
- Multipurpose unit in a splash proof housing designed for humid, dirty and outdoor conditions
- Horn speaker VML 1520 can be connected to station
- The front can be removed to allow easy access during installation and service
- The unit has neither loudspeaker nor microphone. External speaker and dynamic microphone must be connected
- The station has an internal 3 W amplifier and the speaker volume is adjustable in four levels with switches located inside the station
- A 10W power amplifier unit FC740 can easily be installed inside the cabinet if additional output volume in an external loudspeaker is needed
- The external loudspeaker can be used both as loudspeaker and microphone if required (talk-back)
- The BC735 unit has a built in relay which functions as a remote control device or an additional warning signal output
- *Dimension (mm): 124W x 244H x 63D*
- *Weight: 0.75 kg*
- *IP-64*

FC740
10W INTERNAL AMPLIFIER MODULE
- For stations AA703V/P, AA704, BC735
- FC740 is easily mounted on top of the PCB inside the stations. FC740 can be used as a talk back unit (common loudspeaker and microphone), or as a plain 10W amplifier
- *Dimension (mm): 89W x 95H x 28D*
- *Weight: 0.1 kg*

SPARES

PRO700S
STANDARD SET OF SPARES

![VINGTOR logo]

MANUALS

A100K10226
INSTALLATION & PROGRAMMING INSTRUCTIONS

A100K10227
USER GUIDE FOR PRO700

![VINGTOR logo]

VSS Sound Reception System

The VSS system is an acoustical electronic navigational aid that enable the officer on watch at an "Closed bridge" according to SOLAS, to hear environmental sound signals from other ships or foghorns that are audible outside the ship when standing inside a totally enclosed bridge space.
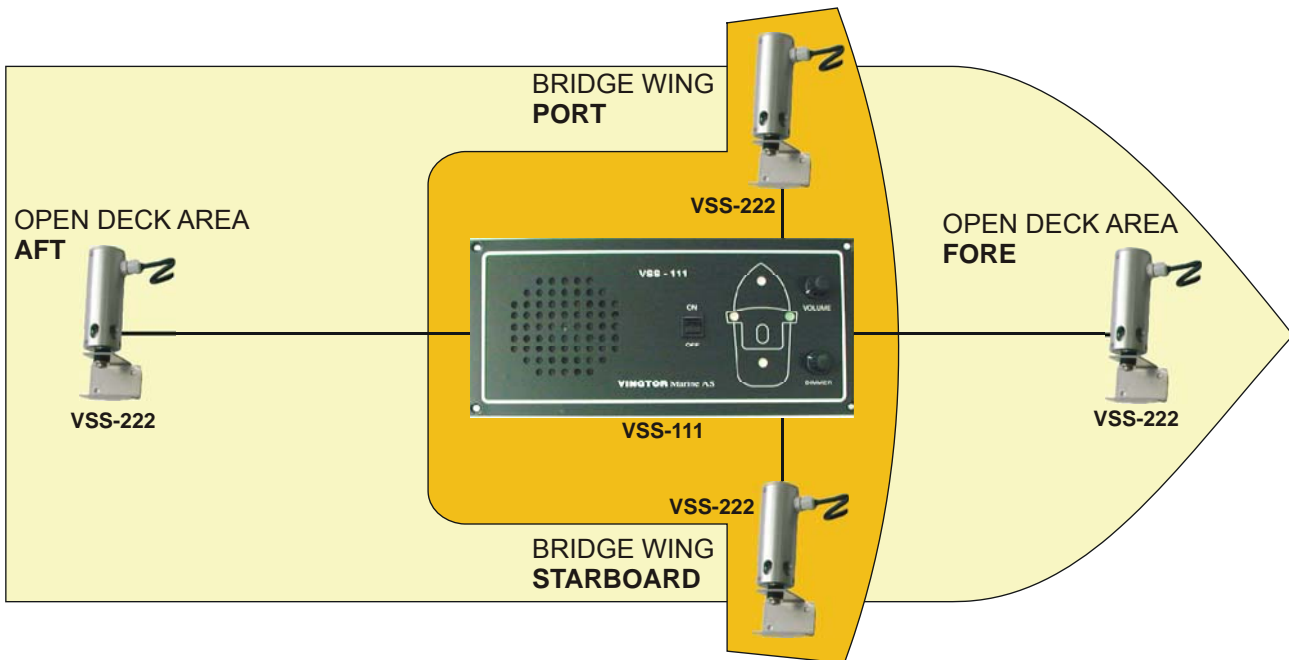
The system is monitoring, according to requirements, frequencies between 70 and 820 Hz. Four VSS-222 weatherproof microphones are mounted outside the wheel-house and connected to the VSS-111 audio amplifier and loudspeaker within the bridge.

By use of four microphones the VSS system will detect the direction of the incoming signal and activate the corresponding LEDs at the VSS-111 front panel. The four microphones operate in pair depending on the direction of the received sound signal.

The first microphone detecting a sound will be registered and it will be locked against influence from the other microphones. This will repeat each time a signal is strong enough to trigger the detector.

Features

- Acoustic electronic navigation aid for closed bridge

- Easy to operate

- The system has input for "remote muting" of the amplifier circuit when the vessel's own horn is activated

- Noise muting by squelch function

- Sector indication

- Comply with requirements MSC.86 (70)

OPEN DECK AREA
AFT

VSS-222

BRIDGE WING
PORT

VSS-222

VSS - 111

VSS-111

VSS-222

BRIDGE WING
STARBOARD

OPEN DECK AREA
FORE

VSS-222

The system is tested according to EN60945, and are type approved by DNV, RINA, BV RMRS , CCS , GL and CRS

VSS-111
MAIN STATION W/ INPUT FOR 4 x MIC. AND LED INDICATION - 24 VDC/1A
- Built-in system amplifier
- Built-in loudspeaker with manual volume control of listening level
- Manual dimmer control for LEDs
- Input for remote muting of the amplifier circuitry when the vessel's own typhoon is activated
- Squelch function
- Adjustable muting of undesired sound sources
- *Dimension (mm): 130W x 114H x 50D*
- *Weight: 0.4 kg*
- *IP-44*

Note! VSS-VDR are available, output to VDR

VSS-222
MICROPHONE STATION, WATERTIGHT
- Waterproof microphone for bulkhead mounting outside the wheelhouse
- Connected to one of four corresponding inputs on amplifier unit VSS-111
- *Dimension (mm): 60W x 154H x 80D*
- *Weight: 0.9 kg*
- *IP-65*

MP-9320
POWER SUPPLY 220 VAC / 24 VDC - 3A
- Switch mode, regulated power supply unit
- Fixed output voltage
- Short circuit proof
- Mains cord with euro-plug
- LED on front
- Mounting brackets available
- *Dimension (mm): 130W x 114H x 50D*
- *Weight: 0.4 kg*

SPARES

VSS111S
VSS STANDARD SET OF SPARES

ETB Talk Back System

The ETB Talk-Back system is a command communication system based on one operator unit/panel, and a wide range of substations. The system is typically used to coordinate activities in a work group – when it is important that the members in the group can hear all conversations.
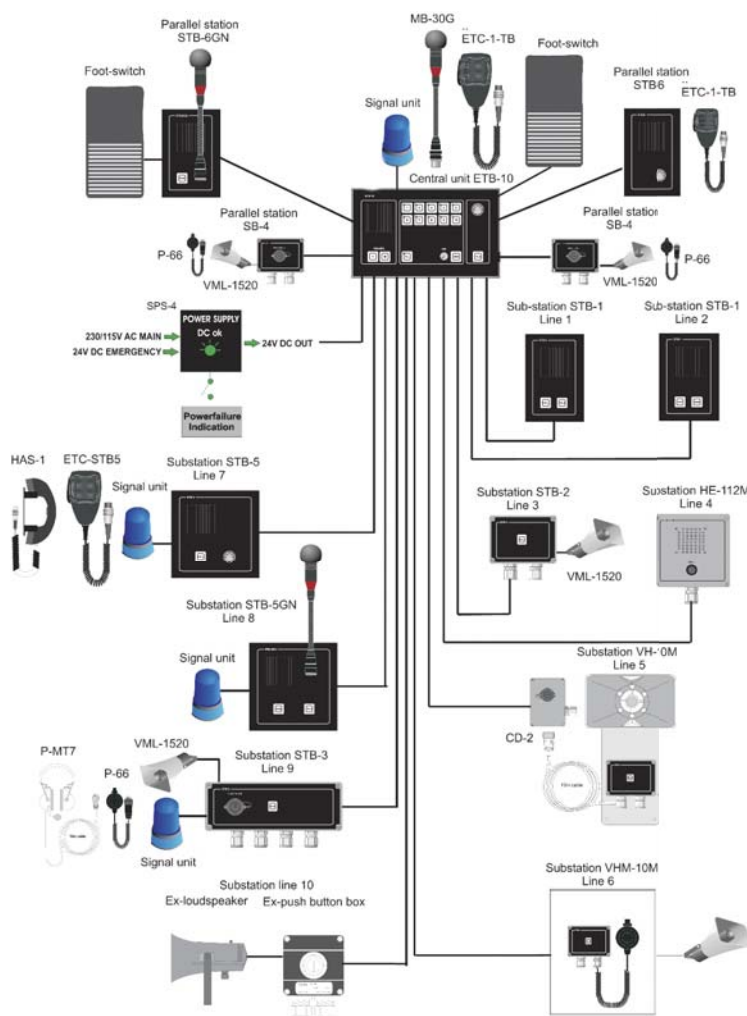
The system can be delivered for 5 or 10 substations lines, and operate on 24V DC.

The ETB-5 and -10 operator panels has foil protective push button types with individual line buttons plus "ALL"-button. The "TALK"-button controls the Talk-Listen function while the "CALL"-button activates the external signal unit or relay box. The standard version has a built in loudspeaker with step volume control of the listening level and a microphone outlet for handheld or gooseneck microphones.

The ETB control unit has separate terminal blocks for each substation. The stations are designed and made for marine usage and environment.

Features

- Operator station with Direct Access Keys

- 5 or 10 lines direct selection

- Work group communication facility

- Extension buttons with memory light and buzzer

- indication of incoming calls

- Easy access volume control for operators

- Dimmable panel background light

- PA audio output and zone selection (SPA-V2)

- Integrated bridge solution with DIN norm for mounting

The system is tested according to EN60945, and are type approved by DNV, RMRS, CCS and CRS

VINGTOR

ETB-5 & ETB-10 LINES, LOW IMPEDANCE

ETB-5
CENTRAL, PANEL MOUNTED, 5 LINES, 24V DC, 2A
- Master station with 5 lines selection
- All Call facility
- Connector for gooseneck or hand-held microphone
- Dimable memory light
- Line buttons with memory light
- Buzzer indication of incoming calls
- Step volume control
- Signal oscillator
- Output for extra signal device on all lines
- Output 24 VDC for extra signal device on all lines. Max. 50 mA
- *Dimension (mm): 240W x 144H x 100D*
- *Weight: 1.6 kg*
- *IP-44*

ETB-10
CENTRAL, PANEL MOUNTED, 10 LINES , 24V DC, 2A
- Master station with 10 lines selection
- All Call facility
- Connector for gooseneck or hand-held microphone
- Dimable memory light
- Line buttons with memory light
- Buzzer indication of incoming calls
- Step volume control
- Signal oscillator
- Output for extra signal device all lines
- Output 24 VDC for extra signal device on all lines. Max. 50 mA
- *Dimension (mm): 240W x 144H x 100D*
- *Weight: 1.6 kg*
- *IP-44*

Note! Above panels need ETC-1-TB or MB-30G microphones

WBOKS
WALL MOUNTED BOX FOR ETB-5, ETB-10 AND ETB-100
- *Dimension (mm): 240W x 144H x 100D*
- *Weight: 0.4 kg*

Note! See section ADDITIONAL ETB/CTB EQUIPMENT, page 36

VINGTOR

ETB-100V Talk Back System

The ETB-100V Talk-Back system is a command communication system based on one operator unit/panel, and a wide range of substations. The ETB-100V system supports public address using power amplifiers and 100V loudspeakers.

The system is typically used to coordinate activities in a work group – when it is important that the members in the group can hear all conversations.
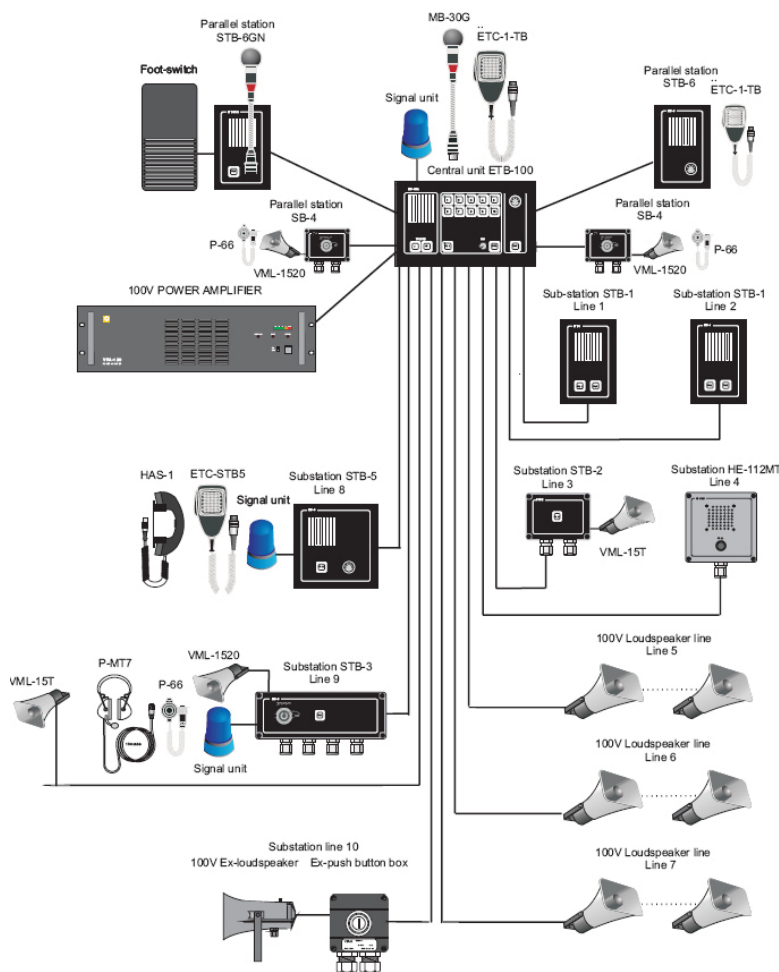
The system can be delivered for 10 substations lines, and operate on 24V DC.

The ETB-100V operator panel has foil protective push button types with individual line buttons plus "ALL"-button. The "TALK"-button controls the Talk-Listen function while the "CALL"-button activates the external signal unit or relay box. The standard version has a built in loudspeaker with step volume control of the listening level and a microphone outlet for handheld or gooseneck microphones.

The ETB control unit has separate terminal blocks for each substation. The stations are designed and made for marine usage and environment.

Features

- Operator station with Direct Access Keys

- Public address using power amplifiers and 100V loudspeakers

- 10 lines direct selection

- Work group communication facility

- Extension buttons with memory light and buzzer indication of incoming calls

- Easy access volume control for operators

- Dimmable panel background light

- PA audio output and zone selection (SPA-V2)

- Integrated bridge solution with DIN norm for mounting

The system is tested according to EN60945, and are type approved by DNV, RMRS, CCS and CRS

VINGTOR

ETB-100 COMBINED LOW IMPEDANCE AND 100V OUTPUT

ETB-100
CENTRAL, PANEL MOUNTED, 10 LINES, 24V DC, 2A
- Master station with 10 lines selection
- 100V line output
- All Call facility
- Connector for gooseneck or hand-held microphone
- Dimable memory light
- Line buttons with memory light
- Buzzer indication of incoming calls
- Step volume control
- Signal oscillator
- Output for extra signal device on all lines
- Output 24V DC for extra signal device on all lines. Max. 50 mA
- *Dimension (mm): 240W x 144H x 100D*
- *Weight: 1.8 Kg*
- *IP-44*

Note! This panel need ETC-1 or MB-30G

WBOKS
WALL MOUNTED BOX FOR ABOVE
- *Dimension (mm): 240W x 144H x 100D*
- *Weight: 0.4 kg*

POWER SUPPLY

MP-9320
POWER SUPPLY 220V AC/24V DC, 3A
- Switch mode, regulated power supply unit
- Fixed output voltage
- Short circuit proof
- Mains cord with euro-plug
- LED on front
- Mounting brackets available
- *Dimension (mm): 130W x 114H x 50D*
- *Weight: 0,4 kg*

SPS-4
POWER SUPPLY 115/230V AC/ 24V DC, 4A WITH AUTO-SWITCH
- Automatic switch to emergency 24 VDC when mains supply fails.
  Potential free relay contact for power failure.
- *Dimension (mm): 200W x 250H x 150D*
- *Weight: 4.1 kg*

Note! See section ADDITIONAL ETB/CTB EQUIPMENT, page 36

SPARES

ETBS
STANDARD SET OF SPARES FOR ETB-5/10/100

MANUALS

ETBIU
INSTALLATION & USER MANUAL - ETB-5 & ETB-10 SYSTEM

ETB100IU
INSTALLATION & USER MANUAL - ETB-100 SYSTEM

CTB Talk Back System

The CTB Talk-back system is a command communication system based on one operator unit/panel, and a wide range of substations. The system is typically used to coordinate activities in a work group – when it is important that the members in the group can hear all the conversations.

The CTB Talk-Back system is based on one central unit, up to 4 operator panels and a wide range of substations made for marine usage and environment. Operator panels are nominated as master or sub-master by settings in the CU central unit.

The system can be delivered for 10 or 20 substation lines, and operate on 24V DC.

The CU central unit contains all electronic parts, as well as terminals for termination of all field equipment.

The CTB operator panels have foil protected push buttons. The physical dimensions are based on the Euro DIN standard and fit neatly into integrated bridge solutions. Both handheld and gooseneck microphones can be used.

Features

- Operator station with Direct Access Keys

- 10 or 20 lines direct selection

- Work group communication facility

- Extension buttons with memory light and buzzer indication of incoming calls

- Easy access volume control for operators

- Dimmable panel background light

- PA audio output and zone selection (SPA-V2)

- Integrated bridge solution with DIN norm for mounting
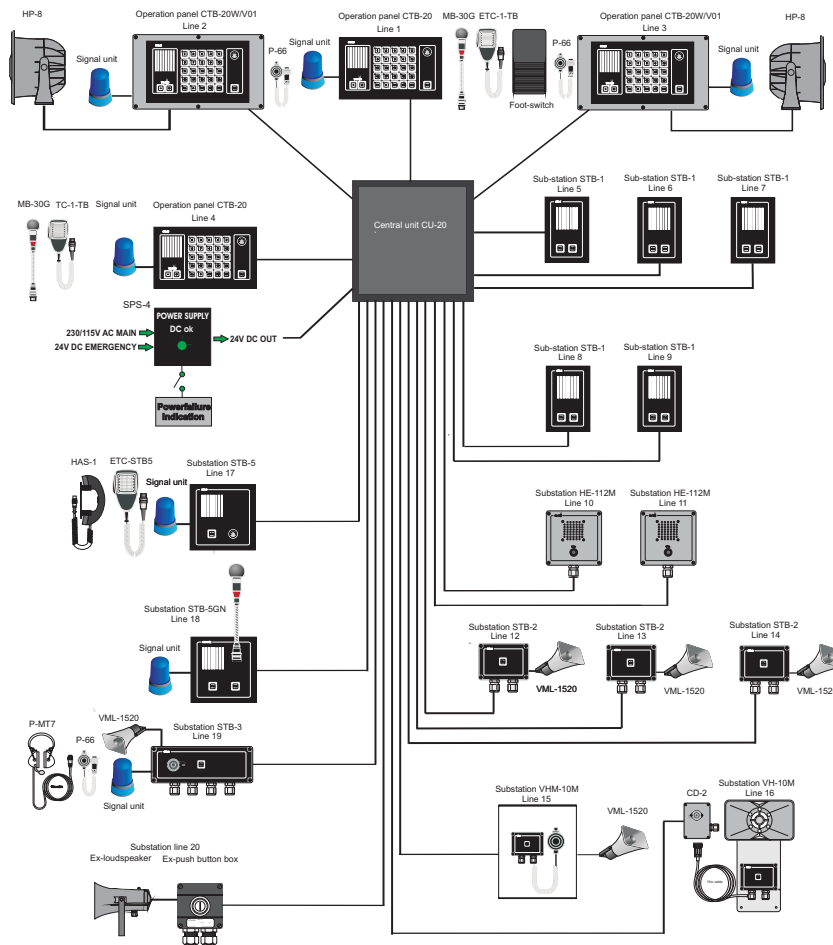
The system is tested according to EN60945, and are type approved by DNV, RMRS, CCS and CRS

CENTRAL UNITS, LOW IMPEDANCE
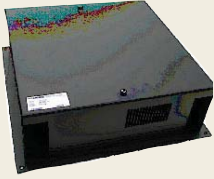
CU-10

CENTRAL UNIT FOR CTB-10, 24V DC, 3A, STANDARD
- Central unit 10 lines for the CTB system
- Operates with CTB-10 panel unit
- AUX / Alarm input
- Output to Public Address system
- Signal oscillator
- Output 24V DC for extra signal device on all lines. Max. 50 mA
- 24V DC power supply
- *Dimension (mm): 400W x 400H x 200D*
- *Weight: 2.6 Kg*
- *IP-22*
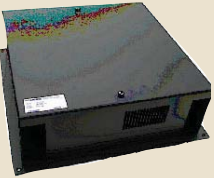
CU-20

CENTRAL UNIT FOR CTB-20 , 24V DC, 4A, STANDARD
- 20 lines central unit for the CTB system
- Operates with CTB-20 panel unit
- AUX / Alarm input
- Output to Public Address system
- Signal oscillator
- Output 24V DC for extra signal device on all lines. Max. 50 mA
- 24V DC power supply
- *Dimension (mm): 400W x 400H x 200D*
- *Weight: 2.6 kg*

Note! See section ADDITIONAL ETB/CTB EQUIPMENT, page 36

VINGTOR

CTB-100V Talk Back System

The CTB-100V Talk Back system is a command communication system based on one operator unit/panel, and a wide range of substations. The CTB-100 system supports public address using power amplifiers and 100V loudspeakers.

The system is typically used to coordinate activities in a work group – when it is important that the members in the group can hear all the conversations.

The CTB-100V Talk Back system includes loudhailing and is based on one central unit, up to 4 main operator panels, one 100 V power amplifier and a wide range of substations made for marine usage and environment. . Operator panels are nominated as master or submaster by settings in the CU central unit.

The system can be delivered for 10 or 20 substation lines, and operate on 24V DC.

The CU central unit contains all electronic parts including the optional output amplifier, as well as terminals for termination of all field equipment.

The CTB-100V operator panels have foil protected push buttons. The physical dimensions are based on the Euro DIN standard and fi t neatly into integrated bridge solutions. Both handheld and gooseneck microphones can be used.

Features

- Operator station with Direct Access Keys

- Public address using power amplifiers and 100V loudspeakers

- 10 or 20 lines direct selection

- Work group communication facility

- Extension buttons with memory light and buzzer indication of incoming calls

- Easy access volume control for operators

- Dimmable panel background light

- Audio Output to PA-system (SPA-V2)

- Integrated bridge solution with DIN norm for mounting
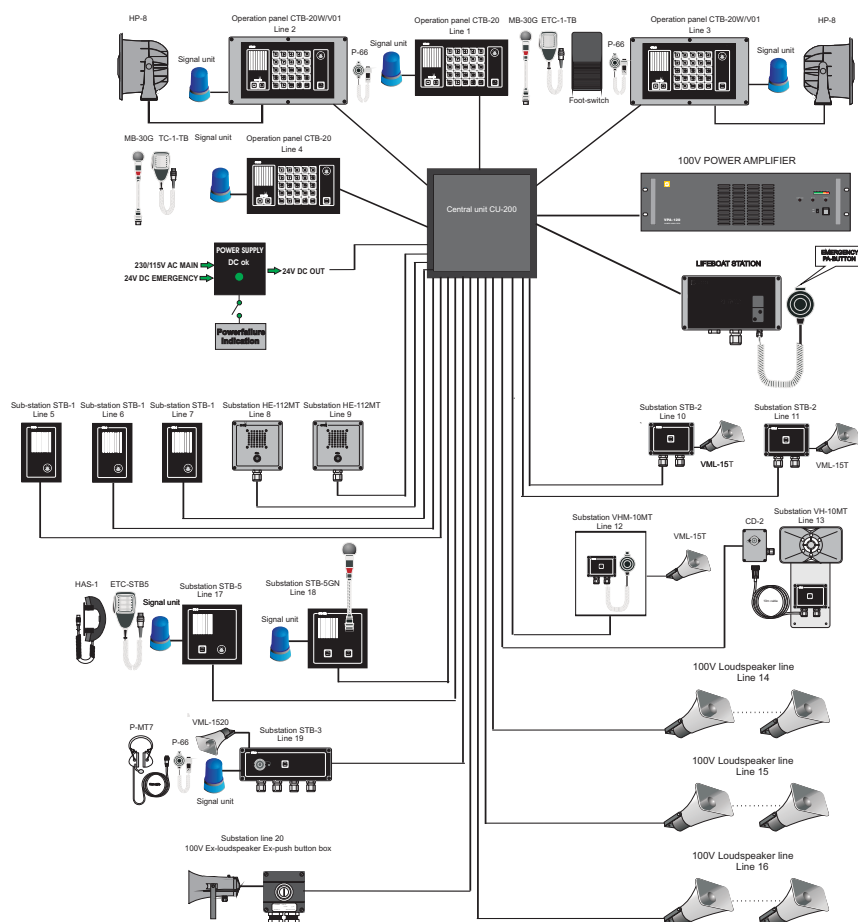
The system is tested according to EN60945, and are type approved by DNV, RMRS, CCS and CRS

VINGTOR

COMBINED LOW IMPEDANCE AND 100V OUTPUT

Note! Power amplifier and RS-3C cabinet needed

CU-100
CENTRAL UNIT FOR CTB-10 , 24V DC, 3A, 100V OUTPUT W/ALARM MUTE
- 10 lines central unit for the CTB system
- Operates with CTB-10 panel unit
- AUX / Alarm input
- Output to Public Address system
- Signal oscillator
- Output 24V DC for extra signal device on all lines. Max. 50 mA
- 24V DC power supply
- 100V line output
- High power amplification by use of external 100V line power amplifier
- *Dimension (mm): 400W x 400H x 200D*
- *Weight: 3.2 Kg*
- *IP-22*

CU-200
CENTRAL UNIT FOR CTB-20, 24V DC, 4A, 100V OUTPUT WITH ALARM MUTE
- 20 lines central unit for the CTB system
- Operates with CTB-20 panel unit
- AUX / Alarm input
- Output to Public Address system
- Signal oscillator
- Output 24V DC for extra signal device on all lines. Max. 50 mA
- 24V DC power supply
- 100V line output
- High power amplification by use of external 100 V line power amplifier
- *Dimension (mm): 400W x 400H x 200D*
- *Weight: 3.2 Kg*
- *IP-22*

RS-3C
RACK MODULE FOR VPA AMPLIFIER
- 19", 3U cabinet prepared for amplifier.
- *Dimension (mm): 520W x 450H x 180D*
- *Weight: 6.0 kg*

VINGTOR

CTB-10 & CTB-20 LINES

CTB-10
CONTROL UNIT, PANEL MOUNTED, 10 LINES
- Operator panel CTB-10 with 10 lines selection
- Operates with CU-10, CU-100, CU-20 and CU-200 central units
- Bridge Wing communication facility
- All Call / Group Call facility
- Connector for gooseneck or handheld microphone
- Dimable panel background light
- Extension buttons with memory light
- Buzzer indication of incoming calls
- Step volume control
- Signal oscillator
- *Dimension (mm): 240W x 144H x 100D*
- *Weight: 1.2 Kg*
- *IP-44*

CTB-20
CONTROL UNIT, PANEL MOUNTED, 20 LINES
- Operator panel CTB-20 with 20 lines selection
- Operates with CU-20 and CU-200 central units
- Bridge Wing communication facility
- All Call / Group Call facility
- Connector for gooseneck or handheld microphone
- Dimable panel background light
- Extension buttons with memory light
- Buzzer indication of incoming calls
- Step volume control
- Signal oscillator
- *Dimension (mm): 240W x 144H x 100D*
- *Weight: 1.2 Kg*
- *IP-44*

Note! Above panels need ETC-1-TB or MB-30G microphones

WBOKS
WALL MOUNTED BOX FOR ABOVE
- *Dimension (mm): 240W x 144H x 100D*
- *Weight: 0.4 kg*

CTB-10W/V01
CONTROL UNIT W/HP-8, WALL MOUNTED, WATERTIGHT
- Operator panel with 10 lines selection and loudspeaker HP-8, bulkhead mounting.
- Operates with CU-10, CU-100, CU-20 and CU-200 central units
- Bridge Wing communication facility
- All Call / Group Call facility
- Connector for WP microphone P-66 or P-66/10
- Dimable panel background light
- Extension buttons with memory light
- Buzzer indication of incoming calls
- Step volume control
- Signal oscillator
- Weather-proof
- *Dimension (mm): 300W x 160H x 156D*
- *Weight: 1.4 Kg*
- *IP-66*

CTB-20W/V01
CONTROL UNIT W/HP-8, WALL MOUNTED, WATERTIGHT
- Operator panel with 20 lines selection and loudspeaker HP-8, bulkhead mounting.
- Operates with CU-20 and CU-200 central units
- Bridge Wing communication facility
- All Call / Group Call facility
- Connector for WP microphone P-66 or P-66/10
- Dimable panel background light
- Extension buttons with memory light
- Buzzer indication of incoming calls
- Step volume control
- Signal oscillator
- Weather-proof
- *Dimension (mm): 300W x 160H x 156D*
- *Weight: 1.4 kg*
- *IP-66*

Note! P-66 or P-66/10 needed for above

POWER SUPPLY

SPS-4
POWER SUPPLY 115/230V AC/24V DC, 4 A WITH AUTO-SWITCH
- Automatic switch to emergency 24V DC when mains supply fails.
  Potential free relay contact for power failure.
- *Dimension (mm): 200W x 250H x 150D*
- *Weight: 4.1 kg*

VINGTOR

SPARES

CTBS
STANDARD SET OF SPARES FOR CTB-10/20 AND CU-10/20/100/200

MANUALS

CTBIU
INSTALLATION & USER MANUAL, CTB-10 & CTB-20 SYSTEM

CTB100IU
INSTALLATION & USER MANUAL, CTB-100 SYSTEM

ADDITIONAL ETB/CTB EQUIPMENT

BRIDGEWING EQUIPMENT FOR ETB AND CTB

STB-6GN
FLUSH MOUNTED SUBSTATION WITH GOOSENECK
- Substation with gooseneck microphone for indoor bridge wing
- Parallel microphone / loudspeaker for ETB and CTB operator panels
- Delivered for flush or bulkhead mounting
- *Dimension (mm): 144W x 96H x 44D*
- *Weight: 0.85 Kg*
- *IP-44*

STB-6
FLUSH MOUNTED SUBSTATION FOR MIC.
- Substation for indoor bridge wing
- Parallel microphone / loudspeaker for ETB and CTB operator panels
- Delivered for flush or bulkhead mounting
- Socket for hand-held microphone
- *Dimension (mm): 144W x 96H x 44D*
- *Weight: 0.35 Kg*
- *IP-44*

STBOKS
FOR STB-6 AND STB-6GN WHEN WALL MOUNTED
- *Dimension (mm): 144W x 96H x 47D*
- *Weight: 0.1 kg*

SB-4
PLUG BOX FOR HANDMIC, WATERTIGHT
- Watertight socket box
- Designed to be used together with handheld microphone (P-66 or P-66/10) or headset (P-MT7)
- Socket with dust cap
- Delivered for bulkhead mounting
- Suitable for installation in noisy areas
- *Dimension (mm): 110W x 80H x 63D*
- *Weight: 0.3 Kg*
- *IP-66*

VINGTOR

SUBSTATIONS
STANDARD FOR ETB AND CTB SYSTEM

STB-1
WALL MOUNTED INDOOR LOUDSPEAKER WITH CALL AND ANSWER BUTTON
- Talk-Back substation, designed for use in cabins, mess rooms, etc.
- Delivered for bulkhead mounting
- Call-button for calling Master unit
- Privacy
- Talk-button with privacy off function.
- *Dimension (mm): 144W x 96H x 49D*
- *Weight: 0.35 Kg*
- *IP-44*

STB-2
CALL BOX, WATERTIGHT, WALL MOUNTED
- Calling box
- Delivered for bulkhead mounting
- Call-button for calling Master unit
- To be used together with horn speaker VML-1520 or VLM-15T
- *Dimension (mm): 110W x 80H x 63D*
- *Weight: 0.3 Kg*
- *IP-66*

STB-3
COMBINED CALL BOX AND SIGNAL RELAY (2A) UNIT WITHOUT LOUDSPEAKER
- Delivered for bulkhead mounting
- Call-button for calling Master unit
- Designed to be used together with handheld microphone (P-66 or P-66/10) or headset (P-MT7)
- Built-in relay circuit for operation of external signalling devices, max. 6A
- To be used together with horn speaker VML-1520
- *Dimensions (mm): 224W x 80H x 63D*
- *Weight: 0.5 kg*
- *IP-66*

P-MT7
PORTABLE HEADSET W/10M CABLE AND PLUG FOR ABOVE
- Headset for Analogue Telephone and Talk Back systems.
- To be used in noisy areas.
- Includes headset holder.
- *Weight: 1.2 Kg*
- *IP-54*

STB-5GN
FLUSH MOUNTED SUBSTATION W/RELAY, W/GOOSENECK
- Talk-Back substation, designed for multipurpose indoor use (engine room)
- Delivered for flush or bulkhead mounting
- Call button for calling Master unit
- Built-in relay circuit for operating of external signalling devices.
- Loudspeaker
- Gooseneck microphone
- *Dimension (mm): 144W x 144H x 57D*
- *Weight: 0.9 Kg*
- *IP-44*

VINGTOR

STB-5

FLUSH MOUNTED SUBSTATION W/RELAY, FOR MIC OR HANDSET

- Talk-Back substation, designed for multipurpose indoor use (engine room)
- Delivered for flush or bulkhead mounting
- Call button for calling Master unit
- Built-in relay circuit for operating of external signalling devices.
- Loudspeaker.
- Socket for handset (HAS-1) or handheld microphone (ETC-STB5)
- *Dimension (mm): 144W x 144H x 57D*
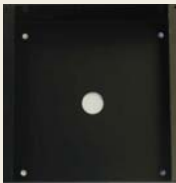- *Weight: 0.5 kg*
- *IP-44*

ETC-STB5

HAND MICROPHONE W/4 PIN PLUG

- Hand-held microphone, configuration for substation STB-5
- *Weight: 0.2 kg*

HAS-1

HANDSET FOR STB-5

- Handset with cradle designed for use together with Talk-back substation STB-5
- *Weight: 0.3 kg*

STBOKS5

FOR STB5 AND STB-5GN WHEN WALL MOUNTED

- *Dimension (mm): 144W x 144H x 59D*
- *Weight: 0.215 kg*

HE-112M

OUTDOOR LOUDSPEAKER WITH CALL BUTTON WATERTIGHT

- Talk-Back Substation, designed for use in open deck areas
- Delivered for bulkhead mounting
- Call-button for calling Master unit
- *Dimension (mm): 122W x 120H x 90D*
- *Weight: 0.4 kg*
- *IP-66*

VHM-10

## SPECIAL DECK UNIT WITH HANDMIC MOUNTED IN WATERTIGHT CABINET

- Special substation with hand microphone and call box in a cabinet
- *Dimension (mm): 215W x 310H x 160D*
- *Weight: 2.5 kg*
- *IP-66*

CD-2
PLUGBOX WATERTIGHT
- For portable units.
- Wall mounting.
- *Dimension (mm): 80W x 110H x 63D*
- *Weight: 0.35 kg*

VH-10M
PORTABLE HORNSPEAKER WITH CALLBOX AND 10M CABLE+PLUG WATERTIGHT
- Portable deck loudspeaker with call box
- Delivered with 10 m cable and plug
- Require horn speaker VML-1520
- *Dimension (mm): 250W x 410H x 305D*
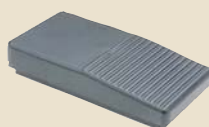
U2410
FOOTSWITCH INDOOR USE
- Foot switch for VOC, ETB and CTB systems
- *Dimension (mm): 101W x 198H x 40D*
- *IP-44*

SUBSTATIONS, 100V SYSTEM FOR ETB AND CTB WHEN EXTERNAL AMPLIFIER ARE USED

HE-112M-T
OUTDOOR LOUDSPEAKER WITH CALL BUTTON WATERTIGHT
- Talk-Back Substation, designed for use in open deck areas
- To be used with 100 V line amplifiers
- Delivered for bulkhead mounting
- Call-button for calling Master unit
- *Dimension (mm): 122W x 120H x 90D*
- *Weight: 0.6 kg*

VH-10M-T
PORTABLE HORNSPEAKER WITH CALLBOX AND 10M CABLE + PLUG, WATERTIGHT
- Delivered with 10 meter cable and plug.
- *Dimension (mm): 250W x 410H x 305D*
- *Weight: 3.7 kg*
- *IP-65*

VHM-10T
SPECIAL DECK UNIT WITH HANDMIC MOUNTED IN WATERTIGHT CABINET
- Special substation with hand microphone and call box in a cabinet.
- For connection to 100 V loudspeaker
- Require horn speaker VML-1520
- *Dimension (mm): 215W x 310H x 160D*
- *Weight: 2.5 kg*
- *IP-66*

VINGTOR

EXPLOSION PROOF SUBSTATION FOR ETB AND CTB SYSTEM

NEBB-42EX
CALLBOX, ATEX-APPROVED , EEx de IIC T6
- Explosion proof calling box for hazardous areas
- Delivered for bulkhead mounting
- Call-button for calling Master unit
- To be used together with EX horn speaker DSP-15EEExeNT or DSP-15EEExeN
- *Dimension (mm): 85W x 85H x 77,5D*
- *Weight: 0.35 Kg*
- *IP-67*

RELAY BOXES

IRR-3
RELAYBOX 24V DC OR 220V AC - SIGNAL UNIT WATERTIGHT
- Separate relay unit for operation of 24 VDC or 220 VAC visible and/or audible signal units.
- For bulkhead mounting
- *Dimension (mm): 110W x 80H x 63D*
- *Weight: 0.35 Kg*
- *IP-66*

Note! See section COMMON EQUIPMENT for SIGNAL UNITS AND LOUDSPEAKERS

S VINGTOR

SPA-V2 Public Address System

The SPA-V2 system is specially designed to meet the demands for a cost-effective public address system for use on board ships.

The system is available in different versions and offers a set of standard and optional features which covers the equirements for a marine PA and general alarm systems for all type of ships.

Each SPA rack supports from 120W to 2800W. A system can consist of multiple racks to provide needed capacity. The racks can be provided in the following sizes: 12 HU, 16 HU, 20 HU, 24 HU, 30 HU and 40 HU.

The SPA system supports the VINGTOR integrated PA and GA solution. This solution is type approved for public address and general alarm. Together with the VING-TOR ACM, the SPA system are extremely cost efficient where SPA loudspeaker loops are used together with the integrated ACM units to cover areas where PA and GA are required onboard the ship.

The VINGTOR SPA-V2 system is type approved as a standalone PA and GA system.

At delivery, the rack is equipped and internally wired according to customer specifications.

Features

- Standalone PA and GA system made for the ship environment
- 19" rack w/screw terminals for ship cable network
- Power Amplifiers, 100 V line with alternative power output of 120, 240 or 400 W
- Provides monitoring of power amplifiers
- 6 zones selection + ALL
- VINGTOR integrated PA/GA solution in combination with VINGTOR ACM E
- Input for 3 microphone panels
- AUX / Alarm iput
- Input from Talk-back system
- Input from PABX (preselected zones)
- Mains 230 V AC/24 V DC w/auto switch-over
- Built-in pre-amplifiers
- Wide set of microphone and alarm panels
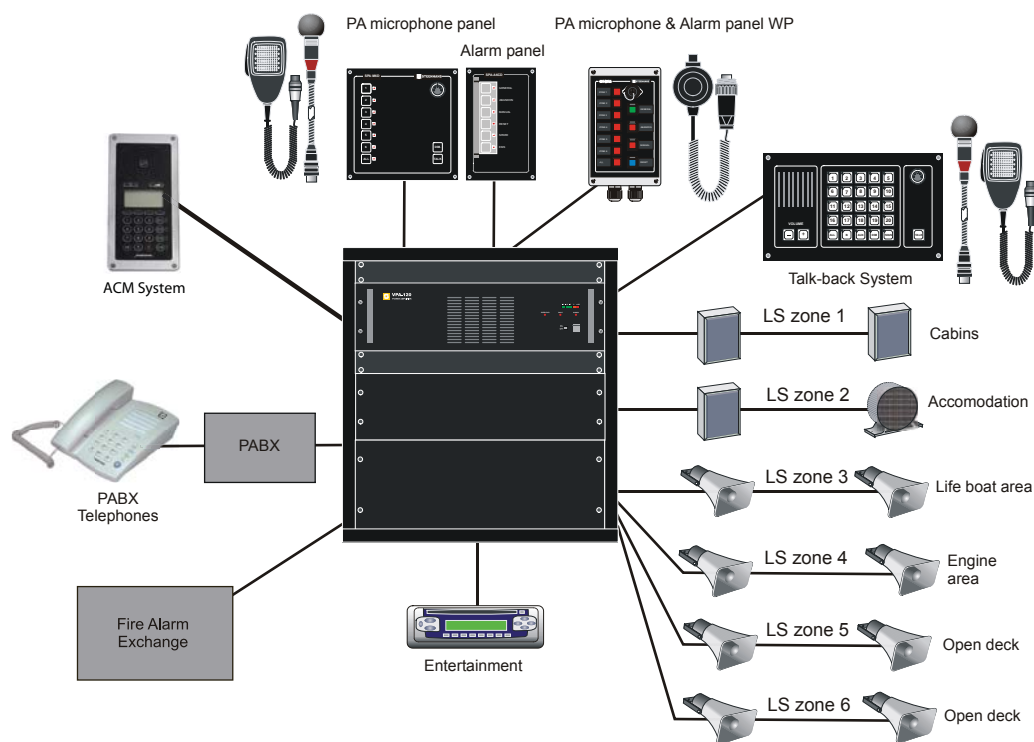
The system is tested according to EN60945, and are type approved by DNV, RMRS, CCS and CRS

![VINGTOR logo]

SPA MAIN UNITS

SPA-120-V2
PA MAIN UNIT, 19" RACK, INCL. 120W AMPLIFIER
- Input for 3 microphone panels
- Input from talk-back system (CTB)
- PABX Input with zone presets.
- 6 zones relay output 100 V for speakers
- Prepared for 2 alarm panels and alarm module
- Alarm mute relay during PA message
- Powered by 230V AC with automatic switch to 24V DC
- Steel cabinet, black
- *Dimension (mm): 12HU, 525W x 600H x 525D*
- *Weight: 42 kg*
- *IP-22*

SPA -240-V2
PA MAIN UNIT, 19" RACK, INCL. 240W AMPLIFIER
- Input for 3 microphone panels
- Input from talk-back system (CTB)
- PABX Input with zone presets.
- 6 zones relay output 100 V for speakers
- Prepared for 2 alarm panels and alarm module
- Alarm mute relay during PA message
- Powered by 230V AC with automatic switch to 24V DC
- Steel cabinet, black
- *Dimension (mm): 12HU, 525W x 600H x 525D*
- *Weight: 45 kg*
- *IP-22*

SPA -400-V2
PA MAIN UNIT, 19" RACK, INCL. 400W AMPLIFIER
- Input for 3 microphone panels
- Input from talk-back system (CTB)
- PABX Input with zone presets.
- 6 zones relay output 100 V for speakers
- Prepared for 2 alarm panels and alarm module
- Alarm mute relay during PA message
- Powered by 230V AC with automatic switch to 24V DC
- Steel cabinet, black
- *Dimension (mm): 12HU, 525W x 600H x 525D*
- *Weight: 48 kg*

Note! Can be delivered with 110V AC on request

RACK EXPANSION

SPA-EXPW
RACK EXPANSION
- Wiring for additional amplifier
- One per power amplifier
- Each power amplifier use 4HU in rack

SPA-EXP
RACK EXPANSION, 4HU

SPA-SHELF
SHELF FOR ADDITIONAL EQUIPMENT FOR VCR OR DVD, 3HU
- *Dimension (mm):* 19" *492W x 177,8H x 377D*
- *Weight: 2.3 kg*

SPA-SHELF4
SHELF W/DRAWER F/CU-SYSTEM INCL. RACK EXPANSION 3HU
- *Dimension (mm):* 19" *492W x 177,8H x 390D*
- *Weight: 7.2 kg*

ADDITIONAL EQUIPMENT WITH HU IMPACT

VPA-120
19" POWER AMPLIFIER 120W/100V - 220V AC/24V DC - 3HU
- Booster unit designed for mounting in 19" rack system
- Two microphone inputs
- Outputs: 100V and Low impedance for monitoring
- Input by XLR sockets, output connection by using screw terminals.
- Priority with chime function
- Bass and treble controls.
- Overload, fault indication and amplifier monitoring
- 24V DC/800 mA power is available on the back panel to feed external equipment.
- Equipped with fan for forced ventilation of the final power stages
- *Dimension: 482W x 133H x 420D 19" rack mounting*
- *Weight: 18.2 kg*

VPA-240
19" POWER AMPLIFIER 240W/100V - 220V AC/24V DC - 3HU
- Booster unit designed for mounting in 19" rack system
- Two microphone inputs
- Outputs: 100V and Low impedance for monitoring
- Priority with chime function
- Bass and treble controls.
- Overload, fault indication and amplifier monitoring
- 24 VDC/800 mA power is available on the back panel to feed external equipment.
- Equipped with fan for forced ventilation of the final power stages
- *Dimension: 482W x 133H x 420D 19" rack monting*
- *Weight: 21.2 kg*

VPA-400
19" POWER AMPLIFIER 400W / 100V – 220VA AC / 24V DC
- Two microphone inputs (XLR), one with priority
- 100V output plus monitoring via low impedance output (both via screw terminals)
- Volume, bass and treble controls placed on back of amplifier
- Overload, fault indication, and amplifier monitoring
- 24V DC/800 mA optional output
- *Dimension: 482W x 133H x 420D 19" rack mounting*
- *Weight in kg: 27*

Note! Each amplifier requires 4HU in rack

Note! Can be delivered with 110 VAC on request

SPA-SWITCH-V2
6 LINE INPUT W MONITOR
- On / Off for entertainment
- Entertainment selector: 1 – 6 program inputs
- Volume adjustment of line output signal
- Amplifier monitoring with selector and volume control: 1 – 6 amplifiers
- Rack expansion (2 HU equipment plus 1 HU space) included

SPA-RCD
RADIO/CD PLAYER (CAR TYPE)
- FM with RDS / MW / CD (standard, MP3
- Mono-mixed 0dB output
- When without SPA-SWITCH-V2 in rack : Entertainment On / Off switch
- Delivered with power supply 230V AC /12V DC
- Rack expansion (2 HU equipment plus 1 HU space) included

SPA-CAD6
6xCD PLAYER (CAR TYPE)
- 6 disc CD (standard, MP3) magazine player
- Entertainment On / Off switch
- Mono-mixed 0dB output
- Delivered with power supply 230V AC / 12V DC
- Rack expansion (3 HU equipment plus 1 HU space) included

SPA-RCD6
RADIO / 6xCD PLAYER (CAR TYPE)
- FM with RDS / MW / CD (standard, MP3)
- Mono-mixed 0dB output
- When without SPA-SWITCH-V2 in rack : Entertainment On / Off switch
- 6 disc CD magazine CD change
- Delivered with power supply 230V AC/12V DC
- Rack expansion (2 HU equipment plus 1 HU space) included

SPA-PABXR-V2
PABX RECALL VOICE RECORDER

- Rack expansion included
- Recall voice recorder for PABX interface
- Using DTMF tone from PABX
- Up to 6 different zones or All can be given
- 19" 1HU
- Rack expansion (2 HU equipment plus 1 HU space) included

SPA-DMG9016
DIGITAL MESSAGE RECORDER

- For storing up to 4 different digital messages, and a total length of 240 seconds overall
- One dynamically limited microphone input with Phantom supply
- Internal monitoring loudspeaker with level adjustment
- 230V AC or 24V DC power supply
- Elecret microphone included
- Rack expansion (1 HU equipment plus 1 HU space) included
- Optional message play panel (SPA-DMG)

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ADDITIONAL EQUIPMENT WITHOUT HU IMPACTS
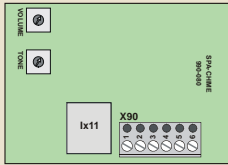
SPA CHIME-V2
CHIME GENERATOR
• Will give a dual tone "Ding-dong" before PA message
• Interconnections to main terminal board by RJ45 8pin plug
• Plugable screwterminals for external connections.

SPA-MUL-V2
SPA- ZONE CONTROL BOARD WITH 4WAY ENTERTAINMENT 6 ZONES
• Board for zone distribution when more than one amplifier are used
• Internal or external 24V override
• Configuration settings by jumpers.
• Interconnections to main terminal board by RJ45 8pin plug
• Plugable screwterminals for external connections.

DR-4524
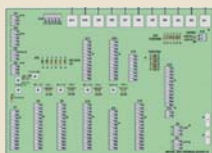### • POWER SUPPLY 230 VAC / 24 VDC, 2A
• For DIN-rail mounting
• Over-voltage and over-load protection
• Auto recovery
• *Dimension (mm): 78W x 93H x 67D*
• *Weight: 0.3 kg*

DRA-24FSA
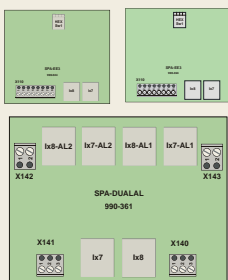### POWER SUPPLY 230V AC/24V DC, 10A
• Additional powersupply for rack equipment
• 230V AC/24V DC, 10A
• Mounting by using brackets

SPA-TERM-V2
TERMINAL BOARD SPA W/2, 5M CABLE
• Optional Assembly-set consisting of main board on plate with cables.
• Plate with space for other modules
• Note! Normally included in a SPA-rack
• *Dimension (mm): 350W x 550H*
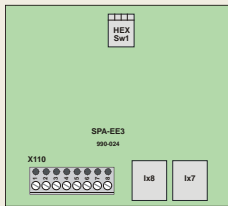
SPA-EE3D-V2
ALARM SET FOR DUAL SYSTEM
• Consist of 2x SPA-EE3 V2 and 1x SPA-EE3 DUAL
• A selector can set all required configuration of alarm tones.
• The module has three start inputs and three outputs for relay or lamps
• Interconnections to main terminal board by RJ45 8pin plug
• Plugable screwterminals for external connections.

Standard settings:
1. Priority: general alarm: 7 short and 1 long tone, 1kHz
2. Priority: abandon ship alarm: Wobbling tone approx. 1 kHz
3. Priority: manual alarm: Continuous tone, 1 kHz
4. Puls start alarm, reset stop

SPA-EE3-V2
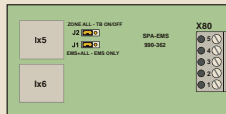### SINGLE ALARM GEN. W/3 ALARM TONES
- The module has a microprocessor that administrates the alarm tones and set-up the inputs and utput
- A selector can set all required configuration of alarm tones
- The module has three start inputs and three outputs for relay or lamps
- Interconnections to main terminal board by RJ45 8pin plug
- Plugable screwterminals for external connections.

Standard settings:
1. Priority: general alarm: 7 short and 1 long tone, 1kHz
2. Priority: abandon ship alarm: Wobbling tone approx. 1 kHz
3. Priority: manual alarm: Continuous tone, 1 kHz

SPA-EMS-V2
SWITCHING BOARD FOR EMERGENCY PA MESSAGE
- Replacement for SPA-PABX / ALL & SPA-EMERG
- Used to combine All and Talk button to make emergency PA calls with single push
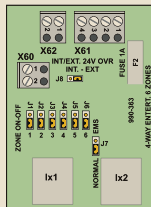
SPA-AL-REL-V2
3 x POT. FREE RELAY OUTPUT AS FOLLOWS:
- GA-STEADY
- GA-PULSING
- GA-PULSING WITH MUTE
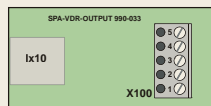- 230V AC - 24V DC 6A

SPA-ENT4-V2
SPA 4 WAY ENTERTAINMENT 6 ZONES
- Board for configuration to entertainment zones with 24V override
- Internal or external 24V override
- Configuration settings by jumpers
- Interconnections to main terminal board by RJ45 8pin plug
- Plugable screwterminals for external connections

SPA-VDR-V2
OUTPUT FOR VOICE DATA RECORDER
- Distribution board for alarm signals
- 0dB and switch for all PA-or alarm activities
- Interconnections to main terminal board by RJ45 8pin plug
- Plugable screwterminals for external connections

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FOR CONNECTION TO TELEPHONE EXCHANGES

SMIII-PA
PA TELEPHONE INTERFACE (TRUNK LINE NEEDED PER PA-LINE)
- Trunk input / Audio output
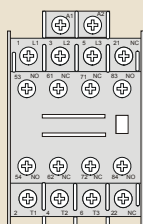- 24V DC
- Rail mounting NS-35

MONITORING

SPA-FAIL
PWR. FAILURE OUTPUT RELAY WITH POTENTIAL FREE CONTACT
- 230V AC or 24V DC, 6 A
- Rail mounting NS-35

SPA-UPS
AUTO SWITCH BETWEEN 230AC MAIN & EMERG./UPS INCL. POWER FAIL
- 230V AC 50/60Hz
- Rail mounting NS-35
- *Dimension (mm): 45W x 70H*

SPARES

SPAS-V2
STANDARD SET OF SPARES FOR SPA

MANUALS

A100K10369
SPA-V2 SYSTEM MANUAL

A100K10370
SPA-V2 CONFIGURATION & INSTALLATION MANUAL

A100K10371
SPA-V2 USER MANUAL

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SPA-M1H-V2

PA PANEL SINGLE FOR ALL CALL - FLUSH - W/HANDHELD MIC ETC-1

• Delivered with gooseneck or handheld microphone
• Built-in pre-amplifier with preset signal level and tone controls
• TALK button
• Flush mounting, back box for wall is available
• *Dimension (mm): 144W x 144H x 82D*
• *Weight: 0.3 kg, (with microphone 0.5 kg)*
• *IP-44*

SPA-M1S-V2

PA PANEL SINGLE FOR ALL CALL - FLUSH - W/GOOSENECK MIC MB-30G

• Delivered with gooseneck or handheld microphone
• Built-in pre-amplifier with preset signal level and tone controls
• TALK button
• Flush mounting, back box for wall is available
• *Dimension (mm): 144W x 144H x 82D*
• *Weight: 0.3 kg, (with microphone 0.5 kg)*
• *IP-44*

SPA-M1H-D
PA PANEL DUAL FOR ALL CALL - FLUSH - W/HANDHELD MIC ETC-1

• Delivered with gooseneck or handheld microphone
• Built-in pre-amplifier with preset signal level and tone controls
• TALK button
• Flush mounting, back box for wall is available
• *Dimension (mm): 144W x 144H x 82D*
• *Weight: 0.3 kg, (with microphone 0.5 kg)*
• *IP-44*

SPA-M1S-D
PA PANEL DUAL FOR ALL CALL - FLUSH - W/GOOSENECK MIC MB-30G

• Delivered with gooseneck or handheld microphone
• Built-in pre-amplifier with preset signal level and tone controls
• TALK button
• Flush mounting, back box for wall is available
• *Dimension (mm): 144W x 144H x 82D*
• *Weight: 0.3 Kg, (with microphone 0.5 kg)*
• *IP-44*

SPA-M6H-V2

PA PANEL SINGLE W/6 ZONES, ALL CALL AND DIMMER - FLUSH - W/HANDHELD MIC ETC-1

- Delivered with gooseneck or handheld microphone
- Built-in pre-amplifier with preset signal level and tone controls
- 6 zones selection buttons
- ALL, TALK, DIMMER buttons
- Replaceable text label to each zone button
- Zone buttons have activation confirmation light
- Flush mounting, back box for wall is available
- *Dimension (mm): 144W x 144H x 82D*
- *Weight: 0.3 Kg, (with microphone 0.5 kg)*
- *IP-44*

SPA-M6S-V2

PA PANEL SINGLE W/6 ZONES, ALL CALL AND DIMMER - FLUSH - W/GOOSENECK MIC MB-30G

- Contact for gooseneck or handheld microphone
- Built-in pre-amplifier with preset signal level and tone controls
- Two independent control boards for dual PA systems (A-B systems)
- 6 zones selection buttons
- ALL, TALK, DIMMER buttons
- Replaceable text label to each zone button
- Zone buttons have activation confirmation light
- Flush mounting, back box for wall is available
- *Dimension (mm): 144W x 144H x 82D*
- *Weight: 0.4 Kg (with microphone 0.6 kg)*
- *IP-44*

SPA-M6H-D

PA PANEL DUAL W/6 ZONES, ALL CALL AND DIMMER - FLUSH - W/HANDHELD MIC ETC-1

- Contact for gooseneck or handheld microphone
- Built-in pre-amplifier with preset signal level and tone controls
- Two independent control boards for dual PA systems (A-B systems)
- 6 zones selection buttons
- ALL, TALK, DIMMER buttons
- Replaceable text label to each zone button
- Zone buttons have activation confirmation light
- Flush mounting, back box for wall is available
- *Dimension (mm): 144W x 144H x 82D*
- *Weight: 0.4 Kg (with microphone 0.6 kg)*
- *IP-44*

SPA-M6S-D

## PA PANEL DUAL W/6 ZONES, ALL CALL AND DIMMER - FLUSH - W/GOOSENECK MIC MB-30G

- Contact for gooseneck or handheld microphone
- Built-in pre-amplifier with preset signal level and tone controls
- Two independent control boards for dual PA systems (A-B systems)
- 6 zones selection buttons
- ALL, TALK, DIMMER buttons
- Replaceable text label to each zone button
- Zone buttons have activation confirmation light.
- Flush mounting, back box for wall is available
- *Dimension (mm): 144W x 144H x 82D*
- *Weight: 0.4 Kg (with microphone 0.6 kg)*
- *IP-44*

SPA-M6BOKS
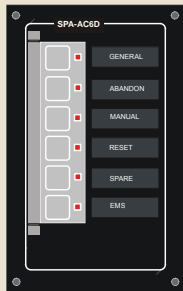**FOR SPA-M1 AND M6 PANELS WHEN WALL MOUNTED**
- *Dimension (mm): 144W x 144H x 82D*
- *Weight: 0.3 kg*
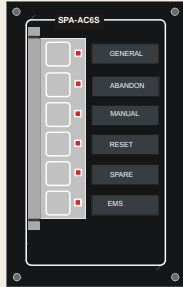
SPA-AC6
SINGLE ALARM PANEL WITH COVERED AND ILLUMINATED ALARM START AND RESET BUTTON FOR INDOOR USE
- Buttons for activating abandon, general or manual alarms
- Separate Emergency button, EMS. for PA-message
- Replaceable text label to each button
- Hinged transparent cover for all buttons
- To be used together with SPA-M6S
- Flush mounting, back box for wall is available
- *Dimension (mm): 96W x 144H x 82D*
- *Weight:0.3 kg*
- *IP-44*

SPA-AC6-D
**DUAL ALARM PANEL WITH COVERED AND ILLUMINATED ALARM START AND RESET BUTTON FOR INDOOR USE**
- Duplicated activating of abandon, general or manual alarms
- Separate Emergency button, EMS. for PA-message
- Replaceable text label to each button
- Hinged transparent cover for all buttons
- To be used together with SPA-M6D
- Flush mounting, back box for wall is available
- *Dimension (mm): 96W x 144H x 82D*
- *Weight: 0.4 kg*
- *IP-44*

ACBOKS
FOR SPA-AC6 PANELS WHEN WALL MOUNTED
- *Dimension (mm): 96W x 144H x 82D*
- *Weight: 0.2 kg*
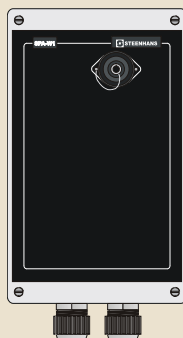
SPA-W1-V2
WEATHERPROOF PA-PANEL FOR OUTDOOR USE
- Contact for WP handheld microphone P-66
- Built-in pre-amplifier with preset signal level and tone controls
- Wall mounting
- Require handheld microphone P-66 or P-66/10
- *Dimension (mm):140W x 230H x 95D*
- *Weight: 0.5 kg*
- *IP-66*

![VINGTOR logo]

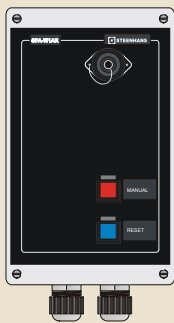**SPA-W1-D**
DUAL WEATHERPROOF PA-PANEL FOR OUTDOOR USE
- Contact for WP handheld microphone P-66
- Built-in pre-amplifier with preset signal level and tone controls
- Wall mounting
- Require handheld microphone P-66 or P-66/10
- *Dimension (mm):140W x 230H x 95D*
- Weight: 0.5 Kg
- *IP-66*

SPA-W1AR-V2
WEATHERPROOF PA-AND ALARM PANEL FOR OUTDOOR USE
- Contact for WP handheld microphone P-66
- Built-in pre-amplifier with preset signal level and tone controls
- Alarm and reset button with hinged transparent cover
- Wall mounting
- Require handheld microphone P-66 or P-66/10
- *Dimension (mm):140W x 230H x 95D*
- *Weight: 0.5 Kg*
- *IP-66*

SPA-W1AR-D
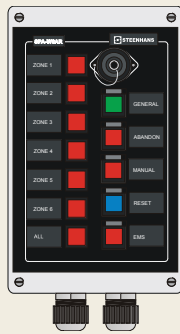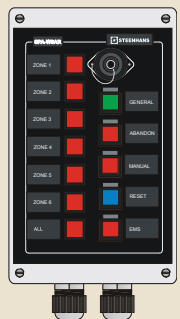### DUAL WEATHERPROOF PA-AND ALARM PANEL FOR OUTDOOR USE
- Contact for WP handheld microphone P-66
- Built-in pre-amplifier with preset signal level and tone controls
- Alarm and reset button with hinged transparent cover
- Wall mounting
- Require handheld microphone P-66 or P-66/10
- *Dimension (mm):140W x 230H x 95D*
- *Weight: 0.5 Kg*
- *IP-66*

SPA-W6A4-V2
WEATHERPROOF PA-AND ALARM PANEL W/6 ZONES FOR OUTDOOR USE
- Contact for WP handheld microphone P-66
- Built-in pre-amplifier with preset signal level and tone controls
- 6 zones selection buttons and all button with confirmation light.
- Separate Emergency button, EMS. for PA-message.
- Alarm start, EMS and reset buttons with hinged transparent cover
- Replaceable text label to each zone button
- Wall mounting
- Require handheld microphone P-66 or P-66/10
- *Dimension (mm):140W x 230H x 130D*
- *Weight: 0.7 Kg*
- *IP-66*

SPA-W6A4-D
DUAL WEATHERPROOF PA-AND ALARM PANEL W/6 ZONES FOR OUTDOOR USE
- Contact for WP handheld microphone P-66
- Built-in pre-amplifier with preset signal level and tone controls
- 6 zones selection buttons and all button with confirmation light.
- Separate Emergency button, EMS. for PA-message.
- Alarm start, EMS and reset buttons with hinged transparent cover
- Replaceable text label to each zone button
- Wall mounting
- Require handheld microphone P-66 or P-66/10
- *Dimension (mm):140W x 230H x 130D*
- *Weight: 0.7 Kg*
- *IP-66*

Note! Watertight cabinet recommended for outdoor installation
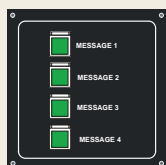
SPA-DMG
REMOTE PANEL FOR MESSAGE RECORDER SPA-DMG9016
- Flush mounting, back box for wall is available
- *Dimension (mm):144W x 144H x 57D*
- *Weight: 0.4 Kg*
- *IP-44*

Note! See COMMON EQUIPMENT – MICROPHONES FOR ETB, CTB AND SPA

ACM Solutions

The VINGTOR ACM provides system solutions that unite and strengthen a vessel's safety systems by offering excellent on-board communication. The VINGTOR ACM solutions have three main system variants. These are:

- VINGTOR ACM Analogue System
- VINGTOR ACM Standard Integrated System
- VINGTOR ACM Advanced Integrated System

Launched ten years ago, the VINGTOR ACM systems provide reliable, robust and proven communication solutions. The ACM systems have continuously been developed and enhanced to take advantage of new technologies such as IP.

The different ACM systems are built around the STENTOFON AlphaCom intercom exchange. The AlphaCom is an avanced communication switch designed to meet the growing needs of internal and external communication onboard ships. The exchange features advanced functions such as 1-BIT audio technology (20 kHz audio), IP switching, Web services, and wide set of integration options to mention a few.

The AlphaCom is a modular platform, supporting IP- as well as analogue telephones and networking. This modularity and flexibility is used to package the product in different system packages. These system packages satisfy the needs for all kinds of vessels from small conventional vessels to large advanced ships. See table below for list of capabilities for the different ACM systems.

Features

- Typed approved solution for two way communication, talkback, public address and general alarm

- Three main system packages;
  - o ACM Analogue System
  - o ACM Standard Integration
  - o ACM Advanced Integration

- 1-BIT audio technology (20 kHz) ensures no misunder standings

- Modular and flexible systems, supporting all type of vessels

- Supports IP, digital and analogue telephones and networking

- Supports remote services using IP and Web technologies

	Analogue System	Standard System	Advanced System
Emergency communication			
Two way communication according to marine requirement	X	X	X
Talkback according to marine requirement		X	X
VINGTOR integrated public address and general alarm		X	X
Public address interface	X		
Stations			
Analogue telephone	X	X	X
Traditional intercom (telephone + PA/GA units)		X	X
IP intercom (telephone + PA/GA units)		X	X
IP DECT cordless telephones	X	X	X
IP telephones	X	X	X
Supplementary functions			
Billing administration	X	X	X
General PBXs functions	X	X	X
Paging system	X	X	X
Structured cabling system (CAT7) for high speed data			X
Data network (LAN) switches			X
Automatic switchover to emergency power	X	X	X
System management, supervision and service performed remotely through the IP network.	X	X	X
External communication via Satellite, V-Sat and GSM	X	X	X

ACM Analogue System (ACM-M-A)

The VINGTOR ACM-M-A is a PABX made for Marine environment. The exchange is based on the well known VINGTOR ACM solution. Featuring the latest developments such as high capacity line cards, remote management and maintenance using IP and Web technologies as well as VoIP gateways. An optional VoIP gateways provides a flexible interface to analogue and digital telephone trunks with 4 and 8 channels.

The ACM-M-A system is type approved. The exchange is available in different sizes, from 24 to 72 subscribers. It is housed in a wall mounted cabinet which is optimized for easy installation and maintenance. All connections are easily accessible from the front.
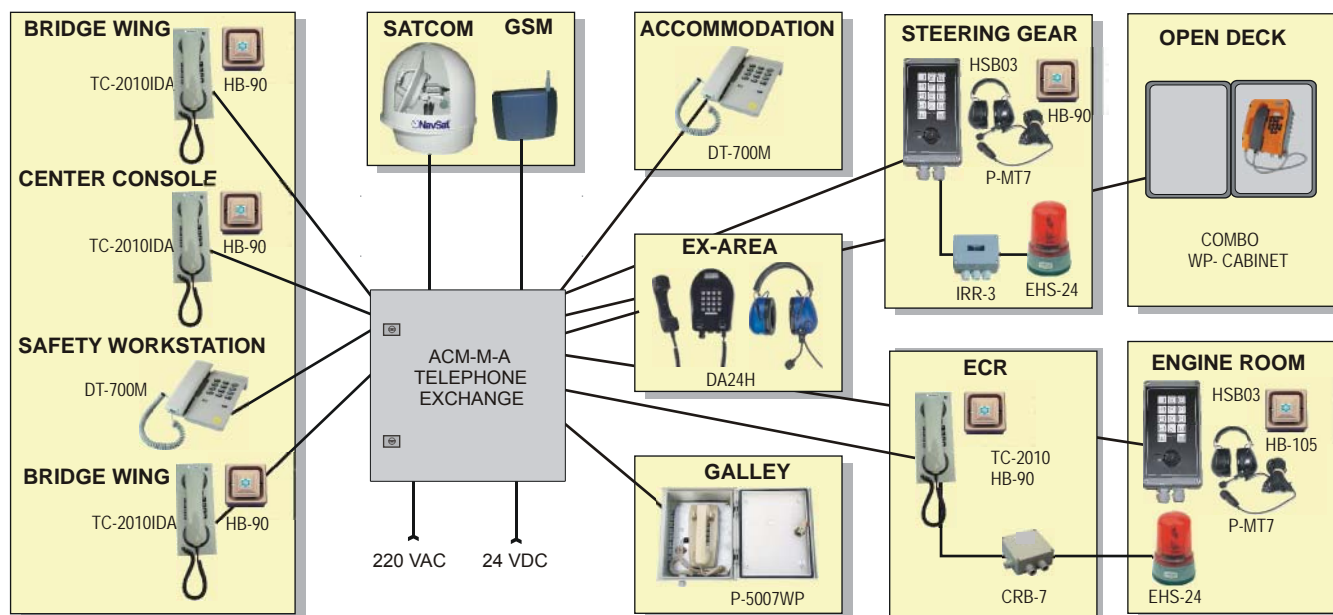
The exchange can be powered from an AC and/or DC power supply and features automatic switch-over.

The PABX has an interface for connection to a Public Address system.

Access to the PA interface is programmable.

Features

- PABX made for the Marine environment

- Extensive and programmable features supporting all key PABX functions

- Supports remote management and maintenance using IP and Web technologies

- Support public address (PA) calls via interface to PA systems

- External communication and billing

- Redundant power input with auto-switchover between AC to DC power

| BRIDGE WING | | SATCOM | GSM | ACCOMMODATION | STEERING GEAR | | OPEN DECK |

TC-2010IDA HB-90

CENTER CONSOLE

TC-2010IDA HB-90

SAFETY WORKSTATION

DT-700M

BRIDGE WING

TC-2010IDA HB-90

ACM-M-A TELEPHONE EXCHANGE

220 VAC   24 VDC

DT-700M

EX-AREA

DA24H

GALLEY

P-5007WP

HSB03
HB-90
P-MT7
IRR-3   EHS-24

COMBO WP- CABINET

ECR

TC-2010
HB-90

CRB-7

ENGINE ROOM

HSB03
HB-105
P-MT7
EHS-24

The system is tested according to EN60945, and are type approved by DNV, Rina, CCS and CRS

VINGTOR

VINGTOR ACM-M-A TELEPHONE EXCHANGE
- For wall mounting
- Power inputs 90-270VAC and 24VDC with automatic switch-over.
- Frequency range 300-400Hz
- Optional available telephone interface; 2,4 or 8 port analogue FXO
- Cable requirements between telephones and exchange 1 pair
- Temperature range +5°C - +55C°
- *Dimension (mm): 600W x 600H x 350D*
- *Weight: Max. 45 kg*

ACM-M-A24-2
ACM ANALOGUE – 24 SUBSCRIBERS
- One PA interface
- Two analogue trunk lines (FXO)

ACM-M-A36-2
ACM ANALOGUE – 36 SUBSCRIBERS
- One PA interface
- Two analogue trunk lines (FXO)

ACM-M-A48
ACM ANALOGUE – 48 SUBSCRIBERS
- One PA interface

ACM-M-A60
ACM ANALOGUE – 60 SUBSCRIBERS
- One PA interface

ACM-M-A72
ACM ANALOGUE – 72 SUBSCRIBERS
- One PA interface

GATEWAYS FOR EXTERNAL COMMUNICATION

MP-114
ANALOGUE MEDIA GATEWAY - 4FXO
• 4 analogue trunk lines
• 230V AC only

MP-118
ANALOGUE MEDIA GATEWAY - 8FXO
• 8 analogue trunk lines
• 230V AC only

MP-UPGRADE
UPGRADE FROM 2 TO 4 ANALOGUE LINES
• Upgrade ACM-M-A24-2 and ACM-M-A36 to have 4 analogue trunk lines

220 000 3000
GSM MEDIA GATEWAY
• One GSM channel
• Supports Quad band GSM (800/900/1800/1900)

92580
GSM MULTI BAND ANTENNA WITH 10M CABLE
• Includes 10 m high quality antenna cable and connectors
• Rough design made for the marine environment
• *Height (mm): 250*
• *Weight: 0.5 kg*

92590
GSM MULTI BAND ANTENNA WITH 20M CABLE
• Includes 20 m high quality antenna cable and connectors
• Rough design made for the marine environment
• *Height (mm): 250*
• *Weight: 0.5 kg*

VINGTOR

SYSTEM MANAGEMENT

1009291120
ALPHAPRO PROFESSIONAL FOR USB
- USB dongle for AlphaPro Professional

1009647902
VINGTOR BILLING – 2 EXTERNAL TRUNKS
- Supports 2 external trunks and upto 200 users
- Web based billing – configuration not included

1009647904
VINGTOR BILLING – 4 EXTERNAL TRUNKS
- Supports 4 external trunks and upto 200 users
- Web based billing – configuration not included
-

1009647908
VINGTOR BILLING – 8 EXTERNAL TRUNKS
- Supports 8 external trunks and upto 200 users
- Web based billing – configuration not included

PROJECT ENGINEERING

ACM/PROG
CUSTOMIZED DIRECTORY PROGRAMMING OF ALPHACOM E7
- Customized programming of directory (name and number) and external communication
- See Standard Programming and Cable Reference List

NETWORKING

100940202
IP MULTI - MODULE LICENSE - 2 MODULES
- Connects two ACM-M-A racks to one exchange
- Need data switch to connect ACM-M-A racks

MRX-SWITCH
DATA SWITCH – 4 PORTS
- Unmanaged 10/100 Mb switch
- DIN mounted
- Dataswitch for connecting ACM-M-A exchanges in multi-module configuration or to other IP modules

92745
INDUSTRIAL PoE SWITCH, 5 PORT
- Unmanaged 10/100 Mb switch
- DIN mounted
- 4 PoE ports + 1 standard 10/100 Mb port
- Support PoE for powering IP intercom, IP telephone and IP DECT base stations
- Includes assembly

NOTE! See chapter VINGTOR ACM STATIONS in section for analogue telephones and IP DECT cordless telephones for additional equipment

VINGTOR

ACM Standard Integrated System

The VINGTOR ACM Standard Integrated System is specially designed for use onboard ships. The system is based on the STENTOFON AlphaCom E platform featuring the latest development such as IP telephony, Web management and IP switching.

The VINGTOR ACM Standard Integrated System supports the VINGTOR integrated PA and GA solution. Together with the VINGTOR SPA, the system are extremely cost efficient where SPA loudspeaker loops are used together with the ACM intercom terminals. The ACM intercom terminals are type approved as integrated PA, GA, telephone and talkback units.

The VINGTOR ACM solution supports a wide range of traditional, IP and wireless communication terminals made for ship environment. IP DECT base stations connect directly to the exchange over IP providing a very cost efficient solution to deploy a wireless network onboard.

The DECT telephones, IP telephones and intercom termials have all access to the same set of ACM features. Users will be able to enjoy the benefits of one user experience and seamless mobility as they will always be contactable regardless where they are on the ship.

Features

- Made for Marine environment

- VINGTOR integrated PA and GA solution

- Wide range of audio terminals and signal units

- External communication and billing

- Remote management and maintenance using IP and Web technologies

- Redundant power input with switchover

- 1-BIT digital audio technology

- Typed approved solution for telephone, talkback, public address and general alarm for all types of vessels

- Extensive set of features for PABX and emergency communication

CENTRAL EQUIPMENT

BRIDGE WING
VMP-430
VMP-221

RADIO/CHART TABLE
VMP-430
VMP-221

CENTER CONSOLE
VMP-430
VMP-221

SAFETY WORKSTATION
VMP-603
VMP-619

BRIDGE WING
VMP-430
VMP-221

SATCOM   GSM

ACM

SPA RACK

ACCOMMODATION
VMP-619

CORRIDORS
CAR-4TF

GALLY
VMP-503

STEERING GEAR
VML-1520
VMP-36-PEL
VMP-530
IRR-3   EHS-24

OPEN DECK
VML-1520
VMP-530VHM
VMT-603

ECR
VMP-530
IRR-3

ENGINE ROOM
VMP-530   VMP-36-PEL
EHS-24   VML-1520

The system is tested according to EN60945, and are type approved by DNV, Rina, CCS and CRS

VINGTOR

VINGTOR ACM SYSTEM RACKS

ACM-M-D
ACM-M-D SYSTEM RACK
- Pre-wired for 6 subscriber cards
- Power 230 VAC with automatic switchover to 24 VDC emergency
- Integrated PA/GA interface (6 relay outputs, 2 inputs, 2 audio channels out, 1 audio channel in)
- 6 relays for light/buzzer signalling in noisy areas
- Delivered with standard programming
- *Dimension (mm): 600W x 600H x 350D*
- *Weight: 45 kg*
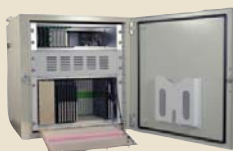- *IP-22*

ACM-48
ACM-48 SYSTEM RACK
- Pre-wired for 11 subscriber cards
- Power 230 VAC with automatic switchover to 230 VAC emergency
- Integrated PA/GA interface (6 relay outputs, 6 inputs, 4 audio channels out, 6 audio channel in)
- 6 relays for light/buzzer signalling in noisy areas
- Delivered with standard programming
- *Dimension (mm): 600W x 635H x 600D*
- *Weight: 70 kg*
- *IP-22*

ACM-144
ACM-144 SYSTEM RACK
- Pre-wired for 17 subscriber cards
- Power 230 VAC with automatic switchover to 230 VAC emergency
- Integrated PA/GA interface (6 relay outputs, 6 inputs, 4 audio channels out, 6 audio channel in)
- 6 relays for light/buzzer signalling in noisy areas
- Delivered with standard programming
- *Dimension (mm): 600W x 1250H x 600D*
- *Weight: 180 kg*
- *IP-22*

AACM-144
AACM-144 SYSTEM RACK
- Pre-wired for 23 subscriber cards
- Power 230 VAC with automatic switchover to 230 VAC emergency
- Integrated PA/GA interface (6 relay outputs, 6 inputs, 4 audio channels out, 6 audio channel in)
- 6 relays for light/buzzer signalling in noisy areas
- Delivered with standard programming
- *Dimension (mm):600 W x 1250H x 600D*
- *Weight: 180 kg*
- *IP-22*

Note! The VINGTOR ACM system racks do not include subscriber extension cards

OPTION POWER SUPPLY

115 100 4001
ACM-48 POWER SUPPLY OPTION 1
• Power supply option for automatic switchover to 24V DC

115 100 4003
ACM-144 POWER SUPPLY OPTION 1
• Power supply option for automatic switchover to 24V DC

SUBSCRIBER EXTENSIONS

Note! Maximum number of subscriber extensions per ACM exchange is 552

1009101010
ASLT2 – SUBSCRIBER LINE BOARD
- Supports 6 traditional intercom stations

1009102000
ATLB – SUBSCRIBER LINE BOARD
- Support 6 analogue telephones

1009104000
ATLB12 – SUBSCRIBER LINE BOARD
- Support 12 analogue telephones
- Only for ACM-M-D

1009641006
IP STATION LICENSE FOR 6 STATIONS
- Supports 6 IP intercom stations
- IP Intercom stations require a license. They do not require additional hardware such as an ASLT card

1009643006
SIP STATION LICENSE FOR 6 SIP TELEPHONES
- Supports 6 IP telephones or DECT cordless handsets
- IP DECT handsets and IP telephones require a license. They do not require additional hardware such as an ATLB card

VINGTOR

OPTIONAL I/O CONTROL

115 320 0001
6 DIGITAL RELAY OUTPUT FOR REMOTE CONTROL
• To extend amount of relays for ACM-144 and AACM-144

Note! *Max number of relays are:*
ACM-M-D: *12*
ACM-48:   *12*
ACM-144:   *18*
AACM-144:   *24*

115 320 0002
MULTI RELAY BOARD WITH 6 RELAY DRIVERS
• Used for additional extensions of relay outputs beyond maximum provisioned

GATEWAYS FOR EXTERNAL COMMUNICATION

MP-114
ANALOGUE MEDIA GATEWAY - 4FXO
• 4 analogue trunk lines
• 230V AC only

MP-118
ANALOGUE MEDIA GATEWAY - 8FXO
• 8 analogue trunk lines
• 230V AC only

220 000 3000
GSM MEDIA GATEWAY
• One GSM channel
• Supports Quad band GSM (800/900/1800/1900)

92580
GSM MULTI BAND ANTENNA WITH 10M CABLE
• Includes 10 m high quality antenna cable and connectors
• Rough design made for the marine environment
• *Height (mm): 250*

92590
GSM MULTI BAND ANTENNA WITH 20M CABLE
• Includes 20 m high quality antenna cable and connectors
• Rough design made for the marine environment
• *Height (mm): 250*

VINGTOR

1009291120
ALPHAPRO PROFESSIONAL FOR USB
- USB dongle for AlphaPro Professional

1009647902
VINGTOR BILLING – 2 EXTERNAL TRUNKS
- Supports 2 external trunks and upto 200 users
- Web based billing – configuration not included

1009647904
VINGTOR BILLING – 4 EXTERNAL TRUNKS
- Supports 4 external trunks and upto 200 users
- Web based billing – configuration not included

1009647908
VINGTOR BILLING – 8 EXTERNAL TRUNKS
- Supports 8 external trunks and upto 200 users
- Web based billing – configuration not included

1009647916
VINGTOR BILLING – 16 EXTERNAL TRUNKS
- Supports 16 external trunks and upto 200 users
- Web based billing – configuration not included

1009647932
VINGTOR BILLING – 32 EXTERNAL TRUNKS
- Supports 32 external trunks and upto 200 users
- Web based billing – configuration not included

Note! If billing for more than 200 users is required, please contact Zenitel Marine Sales

NETWORKING

100940202
IP MULTI - MODULE LICENSE - 2 MODULES
- Connects two ACM racks to one multi-module exchange

100940203
IP MULTI - MODULE LICENSE - 3 MODULES
- Connects three ACM racks to one multi-module exchange

100940204
IP MULTI - MODULE LICENSE - 4 MODULES
- Connects four ACM racks to one multi-module exchange

MRX-SWITCH
DATA SWITCH – 4 PORTS
- Unmanaged 10/100 Mb switch
- DIN mounted
- Dataswitch for connecting ACM exchanges in multi-module configuration or to other IP modules such as media gateways.

92745
INDUSTRIAL PoE SWITCH, 5 PORT
- Unmanaged 10/100 Mb switch
- DIN mounted
- Support PoE for powering IP intercom, IP telephone and IP DECT base stations
- Includes assembly
- PoE ports and one standard 10/100Mb port

NOTE! See chapter VINGTOR ACM STATIONS in section for analogue telephones and IP DECT cordless telephones for additional equipment

ACM Advanced Integrated System

Using VINGTOR ACM Advanced Integrated System as the backbone, Zenitel Marine offers a complete system for Communication, Data, Safety and Entertainment. With the system, reduced cost in infrastructure, more efficient operation, improved user experience and the confidence of type approved and certified systems are achieved.

The VINGTOR ACM Advanced Integrated System includes all functions and capabilities as the ACM Standard Integrated System as well as a wide range of other function and capabiliies options.

The VINGTOR ACM Advanced Integrated System utilizes a new modular building practise. This new modular building practice allows customers to select from a wide set of function modules to provide function and capacity according to specific need.

The function modules are integrated and assembled into 19" data racks made for marine environments. By this modular building practice the system can be extended to provide audio and data communication from 30 to over 1'000 users.

The VINGTOR ACM Advanced Integrated System provides a type approved structured cabling system (CAT7) as the backbone. With its advanced wiring and patch solution the system supports - all in one cable. This means a significant reduction in cabling infrastructure where a single CAT7 cable can provide telephone (analogue or IP), general alarm, public address, internet access and IP TV to a cabin.

Features

- Made for Marine environment
- New modular building practice
- Advanced integration options
- Data network infrastructure
- Advanced cabling solution
- VINGTOR integrated PA and GA solution
- Wide range of audio terminals and signal units
- External communication and billing
- Remote management and maintenance using IP and Web technologies
- Redundant power input with switchover

ACM Advanced Integrated System

IP TELEPHONY

DATA NETWORK & CABLING

IP DECT & PAGING

MASTER CLOCK

IP TV & IP CCTV

PUBLIC ADRESS & GENERAL ALARM

EXTERNAL LINES

![VINGTOR logo]

SYSTEM RACKS

ACM-CAB42-600
EMPTY 19" CABINET 42 HU
• Dimension (mm): 2100H x 800D x 600W
• Ventilation fan
• 42HU free spacing for additional equipment
• Cable inlet in bottom of rack

ACM-CAB42-800
EMPTY 19" CABINET 42 HU
• Dimension (mm): 2100H x 800D x 800W
• Ventilation fan
• 42HU free spacing for additional equipment
• Cable inlet in bottom of rack
• Required for ACM intercom modules

Note! Cable inlet from top can be provided on request

ACM INTERCOM MODULES

*Note! Upto 4 ACM intercom modules can be connected as a multi-module exchange.
   To connect multiple modules a multi module license is needed.
   See section NETWORKING*

115 960 7200
ACM-E7 MODULE
• Max 36 traditional intercom
• Max 72 analogue telephones
• Max 552 IP intercoms, IP telephones or IP DECT handsets
• Delivered with standard programming and documentation – see programming and engineering for project customization.
• *Dimension (mm): 427W x 133H x 280D*
• *Weight: 7 kg*
Includes:
• AlphaCom AMC-IP Board, 1009202000
• Assembly

115 962 0200
ACM-E20 MODULE
• Max 102 traditional intercoms
• Max 102 analogue telephones
• Max 552 IP intercoms, IP telephones or IP DECT handsets
• Delivered with standard programming and documentation – see programming and engineering for project customization.
• *Dimension (mm): 482W x 265H x 365D*
• *Weight: 17 kg*
Includes:
• AlphaCom AMC-IP Board, 1009202000
• AlphaCom AMC IP Filter Board, 1009511000
• APC ALPHACOM PROGRAM & CLOCK, 1009301000
• AlphaCom Filter Board APC - FB, 1009503000
• POWER SUPPLY 230 vac -MK2, 1009703000
• Assembly

115 962 6200
ACM-E26 MODULE
- Max 138 analogue telephones
- Max 552 IP intercoms, IP telephones or IP DECT handsets
- Delivered with standard programming and documentation – see programming and engineering for project customization.
- *Dimension (mm): 483W x 841H x 365D*
- *Weight: 39 kg*

Includes:
- AlphaCom AMC-IP Board, 1009202000
- AlphaCom AMC IP Filter Board, 1009511000
- APC ALPHACOM PROGRAM & CLOCK, 1009301000
- AlphaCom Filter Board APC - FB, 1009503000
- 2 x POWER SUPPLY 230 vac -MK2, 1009703000
- Power distributen board, 1009970101
- Assembly

![VINGTOR]

ACCESSORIES INTERCOM MODULES

1009101010
ASLT2 – SUBSCRIBER LINE BOARD
- Supports 6 traditional intercom stations
- Require RJ45 filter card when used with ACM-E20 and ACM-E26 modules

1009102000
ATLB – SUBSCRIBER LINE BOARD
- Support 6 analogue telephones
- Require RJ45 filter card when used with ACM-E20 and ACM-E26 modules

1009104000
ATLB12 – SUBSCRIBER LINE BOARD
- Support 12 analogue telephones
- Can only be used in ACM E7 modules

1009641006
IP STATION LICENSE FOR 6 STATIONS
- Supports 6 IP intercom stations

1009643006
SIP STATION LICENSE FOR 6 SIP TELEPHONES
- Supports 6 IP telephones or DECT cordless handsets

1009501041
FILTER BOARD RJ45
- One needed per ASTL2,ATLB for ACM-E20 and ACM-E26 modules

100940202
IP MULTI - MODULE LICENSE - 2 MODULES
- Connects two ACM modules to one multi-module exchange

100940203
IP MULTI - MODULE LICENSE - 3 MODULES
- Connects three ACM modules to one multi module exchange

100940204
IP MULTI - MODULE LICENSE - 4 MODULES
- Connects four ACM modules to one multimodule exchange

Note! A multi-module exchange can have maximum 552 subscribers. If your system requires more subscribers, please contact Zenitel Marine sales.

POWER OPTIONS

115 110 1001
POWER MODULE 230V AC MAIN + 230V AC EMERGENCY TYPE A
- Automatic switchover function
- 10 power outlets
- 4 automatic fuses

115 110 1002
POWER MODULE 230V AC MAIN + 230V AC EMERGENCY TYPE B
- Automatic switchover function
- 15 power outlets
- 6 automatic fuses

Note! Switchover to 24V DC emergency available on request

PA INTERFACE AND RELAY OUTPUTS

115 310 0001
VA-110 CARD CASSETTE
• Euro card cassette for VA-502 and VA-503
• 3HU
• Includes V-1008 motherboard, VA-111-2 fuse board and assembly in system rack

115 310 0002
BASIC PA INTERFACE
• Support All Call from ACM panel to SPA and from SPA panel to ACM
• Includes VA-503 and assembly

115 310 0003
EXTENDED PA INTERFACE
• Support All Call + 5 zones from ACM panel to SPA and All Call from SPA panel to ACM
• Includes VA-503 and VA-502 and assembly

115 310 0004
6 RELAY OUTPUTS
• Includes VA-502 and assembly

115 220 0001
ACM RECALL MODULE
• Delayed PA message
• 4 minutes storage capacity
• Includes assembly

VINGTOR

115 964 2904
ANALOGUE MEDIA GATEWAY – FXO 4-PORT
- 4 analogue trunk lines
- Includes license and assembly
- 230V AC only

115 964 2908
ANALOGUE MEDIA GATEWAY - 8FXO
- 8 analogue trunk lines
- Includes license and assembly
- 230V AC only

220 000 2000
ANALOGUE GATEWAY RACK KIT
- 1 HU
- Kit for mounting analogue media gateway in 19″ RACK

220 000 3000
GSM MEDIA GATEWAY
- One GSM channel
- Supports quad band GSM (800/900/1800/1900)

92580
GSM MULTI BAND ANTENNA WITH 10M CABLE
- Includes 10 m high quality antenna cable and connectors
- Rough design made for the marine environment
- *Height (mm): 250*
- *Weight: 0.5 kg*

92590
GSM MULTI BAND ANTENNA WITH 20M CABLE
- Includes 20 m high quality antenna cable and connectors
- Rough design made for the marine environment
- *Height (mm): 250*
- *Weight: 0.5 kg*

Note! ISDN PRI media gateways available on request

VINGTOR

1009291120

ALPHAPRO PROFESSIONAL FOR USB

• USB dongle for AlphaPro Professional

1009647902

VINGTOR BILLING – 2 EXTERNAL TRUNKS

• Supports 2 external trunks and upto 200 users
• Web based billing – configuration not included

1009647904

VINGTOR BILLING – 4 EXTERNAL TRUNKS

• Supports 4 external trunks and upto 200 users
• Web based billing – configuration not included

1009647908

VINGTOR BILLING – 8 EXTERNAL TRUNKS

• Supports 8 external trunks and upto 200 users
• Web based billing – configuration not included

1009647916

VINGTOR BILLING – 16 EXTERNAL TRUNKS

• Supports 16 external trunks and upto 200 users
• Web based billing – configuration not included

1009647932

VINGTOR BILLING – 32 EXTERNAL TRUNKS

• Supports 32 external trunks and upto 200 users
• Web based billing – configuration not included

Note! If billing for more than 200 users is required, please contact Zenitel Marine Sales

VINGTOR

ACM-DS24V01
MANAGED DATA SWITCH 24 PORTS
- DNV certified
- 24 ports 10/100 Mbps and 2 ports 1 Gbps
- Includes one patch cable and assembly
- 1 HU

ACM-DS48
MANAGED DATA SWITCH 48 PORTS
- 48 ports 10/100 Mbps and 2 ports 1 Gbps
- Includes one patch cable and assembly
- 1 HU

MRX-SWITCH
DATA SWITCH – 4 PORTS
- Unmanaged 10/100 Mb switch
- DIN mounted
- Dataswitch for connecting exchanges in multi-module configuration or to other IP modules such as media gatewaysIncludes assembly

ACM-DS24/POE
POE DATA SWITCH 24 PORTS
- Supports power over Ethernet (POE) maximum 632 Watts
- 24 ports 10/100 Mbps and 2 ports 1 Gbps
- Includes one patch cable and assembly
- 1 HU

92745
INDUSTRIAL PoE SWITCH, 5 PORT
- Unmanaged 10/100 Mb switch
- DIN mounted
- 4 PoE ports + 1 standard 10/100 Mb port
- Support PoE for powering IP intercom, IP telephone and IP DECT base stations
- Includes assembly

VINGTOR

PATCH EQUIPMENT MODULES

ACM-PP48
CAT7 PATCH PANEL RJ45
• 2HU + 2HU (cable inlet)
• 48 patch points
• Includes labelling and assembly

ACM-PC-7
CAT7 OUTLETS SOCKET
• Require one outlet socket for each patch point in ACM-PP48

INTERNAL CABLE SET

The internal cable sets are used to connect the different function modules to the structured cable CAT7 patch panel. The system has following main cable types:

CABLE TYPE A
• Y-cable for feeding one data switch port and one traditional intercom extension into a single CAT7 patch point

CABLE TYPE B
• Y-cable for feeding one data switch port and one analogue telephone extension into a single CAT7 patch point

CABLE TYPE C
• Y-cable for feeding one relay output and one analogue telephone extension into a single CAT7 patch point

CABLE TYPE D
• Standard UTP patch cable

115 320 0001
CABLE TYPE A – 15/2
• Data 15cm, intercom 2m
• RJ45 connectors
• Includes labelling and assembly

115 320 0002
CABLE TYPE A – 15/3
• Data 15cm, intercom 3m
• RJ45 connectors
• Includes labelling and assembly

115 320 0003
CABLE TYPE A – 50/3
• Data 50cm, intercom 3m
• RJ45 connectors
• Includes labelling and assembly

115 320 0007
CABLE TYPE B – 15/3
• Data 15cm, analogue telephone 3m
• RJ45 connectors
• Includes labelling and assembly

115 320 0004
CABLE TYPE C – 3/3
• Relay output 3m, intercom 3m
• RJ45 connectors
• Includes labelling and assembly

115 320 0005
CABLE TYPE D - 0.25M
• Standard UTP patch cable 0,25m
• RJ45 connectors
• Includes labelling and assembly

115 320 0006
CABLE TYPE D - 1M
• Standard UTP patch cable 1m
• RJ45 connectors
• Includes labelling and assembly

115 320 0008
CABLE TYPE D - 2M
• Standard UTP patch cable 2m
• RJ45 connectors
• Includes labelling and assembly

115 320 0010
CABLE TYPE D - 3M
• Standard UTP patch cable 3m
• RJ45 connectors
• Includes labelling and assembly

115 320 0009
CABLE TYPE D - 5M
• Standard UTP patch cable 5m
• RJ45 connectors
• Includes labelling and assembly

VINGTOR

CAT7 - OUTLETS

ACM-RJ45W-7
WALL MOUNTED RJ45 SOCKET FOR CAT7
• Provides one RJ45 socket

ACM-E-DT/US/I
SPLIT STATION CABLE – DATA/INTERCOM
• Split station cable for extracting data (Ethernet) and traditional intercom from wall socket when CAT7 was fed using CABLE TYPE A.
• Data 1,5m RJ45 connector
• Intercom 2m RJ45 connector

ACM-E-DT/US/A
SPLIT STATION CABLE - DATA/ANALOGUE PHONE
• Split station cable for extracting data (Ethernet) and analogue phone from wall socket when CAT7 was fed using CABLE TYPE B
• Data 1,5m RJ45 connector
• Intercom 2m RJ45 connector

PUBLIC ADDRESS AND GENERAL ALARM MODULES

115 210 0001
CONVENTIONAL PA CONTROL UNIT
• Type approved solution for PA for conventional vessels
• Support 6 PA zones and 3 SPA microphone panels
• Support VINGTOR integrated PA using ACM intercom stations

115 210 0002
PA AND GA REDUNDANT CONTROL UNIT
• Type approved solution for integrated PA and GA according to requirements from GL, Rina, BV and ABS
• Support 6 PA zones and 3 SPA microphone panels
• Support VINGTOR integrated PA and GA using ACM intercom stations

115 210 0003
PA AND GA REDUNDANT CONTROL UNIT (DNV)
• Type approved solution for integrated PA and GA according to requirement from DNV
• Support 6 PA zones and 3 SPA microphone panels
• Support VINGTOR integrated PA and GA using ACM intercom stations

115 220 0001
LOUDHAILING LOGIC WITH INTERFACE TO ACM MODULE
• Includes connection for one SPA-M1 microphone panel and assembly

115 200 0001
120 W POWER AMPLIFIER
- 3 HU + 1HU for ventilation
- Includes assembly
- *Weight: 18.2 kg*

115 200 0002
240 W POWER AMPLIFIER
- 3 HU + 1HU for ventilation
- Includes assembly
- *Weight: 21.2 kg*

115 200 0003
400 W POWER AMPLIFIER
- 3 HU + 1HU for ventilation
- Includes assembly
- *Weight: 27.0 kg*

ACM Stations

The VINGTOR ACM solutions support a wide range traditional, IP and wireless terminals made for ship environment.

The ACM traditional and IP intercom station supports the VINGTOR integrated telephone, talkback, public address and general alarm concept. This provides an cost efficient solution to cover areas where PA and GA is required onboard the vessel. In addition the ACM intercom panels provides one user interface for PA, talkback and telephony simplifying operation onboard.

IP DECT base stations connects directly to the ACM exchange over IP, providing a very cost efficient solution to deploy a
wireless network onboard.

The DECT telephones, IP telephones, analogue telephones and intercoms have all access to the same set of ACM features.

Users will be able to enjoy the benefits of one user experience and seamless mobility as they will always be contactable regardless where they are on the ship.

Wide station range

IP Intercom

Indoor wall/desk mounted

Watertight stations

Wall mounted handsets

DECT Handsets

Watertight telephones

Additional equipment

Indoor analogue telephones

	Analogue System	Standard Integrated System	Advanced Integrated System	Audio Quality
Traditional intercoms		X	X	15 kHz
IP intercoms		X	X	7 kHz
Analogue telephones	X	X	X	3.4 kHz
IP telephones	X	X	X	7 kHz
IP DECT telephones	X	X	X	3.4 kHz

IP INTERCOM

The VINGTOR ACM IP intercom stations are made for critical communication in ship environment. The stations support low- as well as loud-speaking handsfree conversations. The stations can be used to distribute general alarm as well as public address broadcasts.

1008010000
IP CRM V MASTER
- Made for Critical Communication over IP - CCoIP®
- Integrated bridge panel for telephone, public address and tallkback
- Optional handset unit
- Optional direct access key unit with LEDs
- Large high contrast display for excellent readability
- Backlight with dimmer
- Noise cancelling goose neck microphone
- *Dimension (mm): 125W x 280H x 30D*
- *Weight: 0.8 kg*

1008031000
IP FLUSH MASTER, DISPLAY
- Made for Critical Communication over IP - CCoIP®
- Integrated bridge panel for telephone, public address and tallkback
- Optional handset unit
- Large high contrast display for excellent readability
- Backlight with dimmer
- *Dimension (mm): 125W x 280H x 30D*
- *Weight: 0.8 kg*

1008097100
HANDSET FOR IP FLUSH MASTERS
- *Dimension (mm) : 67W x 280H x 40D*
- *Weight: 0.5 kg*

100 801 0100
IP CRM V DAK MODULE
- Direct access key module made for PA, talkback and telephone calls
- Support 48 direct access keys with labelling
- Two programmable LEDs (green/red) per button
- Backlight with dimmer
- *Dimension (mm): 125W x 280H x 30D*
- *Weight: 0.5 kg*
- *Available on request*

TRADITIONAL INTERCOM

The VINGTOR ACM intercom stations are made for critical communication in ship environment. The stations support low- as well as loud-speaking handsfree conversations. The stations can be used to distribute general alarm as well as public address broadcasts.

STATIONS FLUSH MOUNTING

VMP-430

MAIN STATION WITH ILLUMINATED BUTTONS AND 4 x DIRECT ACCESS KEYS
- Designed for indoor use.
- Built in loudspeaker, volume control and microphone.
- Voice operated duplex, full duplex with handset VMP-221
- *Dimension (mm): 125W x 280H x 35D*
- *Weight: 0.65 kg*
- *IP-44*

Note! External 24V DC needed

VMP-221
HANDSET FOR VMP-430
- Designed for indoor use, flush mounting
- *Dimension (mm): 125W x 280H x 35D*
- *Weight: 0.65 kg*
- *IP-44*

WATERTIGHT STATIONS

VMP-530
MAIN STATION WATERTIGHT
- Designed for humid, dirty and outdoor conditions, wall mounting
- Built in microphone
- Need external loudspeaker VML-1520 (not included)
- Voice operated duplex, full duplex with handset VMP-211 or VMP-250
- *Dimension (mm): 124W x 224H x 63D*
- *Weight: 0.75 kg*
- *IP-65*

VMP-530VHM
MAIN STATION W/HANDMIC IN WATERTIGHT CABINET
- Designed for humid, dirty and outdoor conditions, wall mounting
- Hand microphone included
- Need external loudspeaker VML-1520 (not included)
- *Dimension (mm): 310W x 215H x 160D*
- *Weight: 4.5 kg*
- *IP-66*

VMP-503

MAIN STATION W/ BUILT-IN 50 OHM L/S WATERTIGHT

- Designed for humid, dirty and outdoor conditions, wall mounting
- Built in loudspeaker and microphone
- Voice operated duplex, full duplex with handset VMP-211 or VMP-250
- *Dimension (mm): 124W x 224H x 63D*
- *Weight: 0.75 kg*
- *IP-65*

VMP-503PA

PORTABLE MAIN STATION W/ BUILT-IN LOUDSP.FOR "ACM" WATERTIGHT

- Designed for humid, dirty and outdoor conditions
- 5 m cable, plug and carrying handle
- Built in loudspeaker and microphone
- Voice operated duplex
- *Dimension (mm): 124W x 224H x 63D*
- *Weight: 0.75 kg*
- *IP-65*

CD-4

PLUGBOX WATERTIGHT

- For portable unit in VSP / PRO700 and ACM systems
- Wall mounting
- *Dimension (mm): 80W x 110H x 63D*
- *Weight: 0.35 kg*
- *IP-66*

ADDITIONAL EQUIPMENT FOR STATIONS

VMP-36-PEL

HEADSET WITH BOOM MIC. WITH 10 METER CABLE

- Box with on/off switch, talk button and belt clip
- For fixed connection to a VMP station.
- *Weight: 1.1 kg*
- *IP-54*

VMP-36-PELP

PORTABLE HEADSET WITH BOOM MIC. WITH 10 METER CABLE AND PLUG

- Box with talk button and belt clip
- For connecting to CD-7VMP
- *Weight: 1.1 kg*
- *IP-54*

MT9

THROAT MIC. FOR VMP-36-PEL/PELP

- Replace the boom microphone.

CD-7-VMP
PLUGBOX WATERTIGHT
- For headset VMP-36-PELP
- With on/off switch
- *Dimension (mm): 80W x 110H x 63D*
- *Weight: 0.4 kg*
- *IP-66*

INDOOR WALL/DESK MOUNTED

VMP-619
MAIN STATION LOW/LOUDSPEAKING W/D-10 KEYS
- Designed for desk or wall mounting with handset.
- Built in loudspeaker and microphone.
- Voice operated duplex, full duplex when using handset.
- Delivered with cable and plug-box.
- *Dimension (mm): 224W x 75H x 180D*
- *Weight: 0.69 kg*
- *IP-42*

VMP-D619
MAIN STATION LOW/LOUDSPEAKING W/DISPLAY/VOL. OVERRIDE AND D-10 KEYS
- Designed for desk or wall mounting with handset.
- Built in loudspeaker and microphone.
- Voice operated duplex, full duplex when using handset.
- Delivered with cable and plug-box.
- *Dimension (mm): 224W x 75H x 180D*
- *Weight: 0.69 kg*
- *IP-42*

ADDITIONAL EQUIPMENT FOR ABOVE

64P0006
MODULAR JACK 1x 8 PIN RJ45, FLUSH MOUNTED
- For screw terminals max 0,5 mm² cable
- *Dimension (mm): 88W x 88H x 20D (Built in debht 27)*
- *Weight: 40 g*

VMP-211
WALL MOUNTED HANDSET
- For VMP-stations
- *Dimension (mm): 80W x 250H x 155D*
- *Weight: 0.9 kg*
- *IP-44*

![VINGTOR logo]

VMP-250
WALL MOUNTED HANDSET WATERTIGHT
- For VMP-stations
- *Dimension (mm): 80W x 224H x 153D*
- *Weight: 0.9 kg*
- *IP-66*

VMP-204
POWER AMPLIFIER 220VAC/12W IN 20 OHM
- Slave amplifier for external loudspeaker.
- *Dimension (mm): 120W x 220H x 91D*
- *Weight: 1.2 kg*
- *IP-66*

Note! Watertight Cabinet recommended for outdoor installation

ANALOGUE TELEPHONES

Note! VINGTOR ANALOUE SYSTEM is enhanced to support IP FLUSH MASTER as bridge panel

The VINGTOR ACM supports a wide set of analogue telephone made for the different ship environments.

INDOOR ANALOGUE TELEPHONES

221 200 0100
DESKTOP ANALOGUE TELEPHONE
• Desk or wall mounting
• Handset is stable by use of magnet
• External ringer unit recommended such as HB-90 or IRR-3 with signal light
• *Dimension (mm): 162W x 110H x 195D*
• *Weight: 0.4 kg*

ACCESSORIES FOR ABOVE

12025
NEF 181 04/801 WALL SOCKET RJ 12 (6/6), DARK GREY
• Wall mounted socket for both digital and analogue telephones
• *Dimension (mm): 62W x 57H x 24D*
• *Weight: 40 g*

PT-625A
PT-625A-4-50 JACK SURFACE RJ11
• Wall mounted socket for analogue telephones
• *Dimension (mm): 55W x 20H x 68D*
• *Weight: 0.05 kg*

RELAY BOX

CRB-7
RELAYBOX - 24VDC, 110/220VAC - SIGNAL UNIT WATERTIGHT
• Unit designed for activation of extra signal device connected to telephone in noisy area
• For use in both automatic telephone and battery-less telephone systems
• *Dimension (mm): 120W x 122H x 55D*
• *IP-66*

VINGTOR

WATERTIGHT TELEPHONES
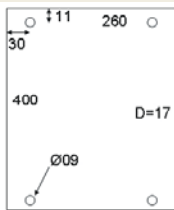

221 300 0100
HEAVY DUTY ANALOGUE TELEPHONE
- 5 mm aluminum casing
- External ringer unit recommended such as HB-90, HB-105 or CRB-7 with signal light
- *Dimension (mm): 205W x 320H x 120D*
- *Weight: 5.0 kg*

221 300 0200
HEAVY DUTY ANALOGUE TELEPHONE, DOOR
- 5 mm aluminum casing
- External ringer unit recommended such as HB-90, HB-105 or CRB-7 with signal light
- *Dimension (mm): 205W x 320H x 120D*
- *Weight: 5.0 kg*
- *IP-66*

221 300 0210
WALL MOUNTING PLATE
- For mounting of 221 300 0100 and 221 300 0200
- Brushed stainless steel
- *Dimension (mm): 260W x 400H x 17D*
- *Weight: 0.2 kg*

P-290
PORTABLE TELEPHONE W/10M CORD W/4-PIN PLUG
- Designed for rugged environmental use.
- The cord can be removed for replacement when necessary without opening the telephone
- Can signal in LD and DTMF modes, present a high impedance monitor, and contains LED polarity indication and tone caller
- *Dimension (mm): 75W x 290H*
- *Weight : 0.9 kg*

MODEL-A
TELEPHONE BOOTH DESK/WALL ALUMINIUM WITH FULL SHELF
- Sound absorbent wall mounting / table top
- Full shelf (250 mm)
- Lightweight
- *Dimension: 584W x 622H x 495D*
- *Weight in kg: 8.2*

SB01
SOCKET BOX WP F/PML-5 FOR P-290
- For shore line connection
- Box in fibre glass reinforced polyester
- *Dimension (mm): 75W x 80H x 56D*
- *Weight: 0.4 kg*
- *IP-65*

64P3004
PLUG C16-1 4-PIN MALE
- For telephone connected to SB01,= shore line connection
- Plug in polyamid material with PG-13,5 cable inlet
- *Dimension (mm): 64,5L x 29Ø*
- *Weight: 30 g*
- *IP-66*

HSB-03
WALL MOUNTED WEATHERPROOF TELEPHONE
- Weatherproof multipurpose telephone
- To be used in combination with headset P-MT7 and alarm bell HB-90 or HB-105
- One relay (max 50 mA)
- *Dimension (mm): 224W x 124H x 63D*
- *Weight: 0.65 kg*
- *IP-66*

IRR-3
RELAYBOX 24V DC OR 220V AC - SIGNAL UNIT WATERTIGHT
- Separate relay unit for operation of 24 VDC or 220 VAC visual and/or audible signal units
- For bulkhead mounting
- *Dimension (mm): 110W x 80H x 63D*
- *Weight: 0.35 kg*
- *IP-66*

P-MT7
HEADSET W/BOOM MIC, 10M CORD W/4-P PLUG (FOR HSB-03)
- Headset for Analogue Telephone and Talk Back systems
- To be used in noisy areas
- Includes headset holder
- *Weight: 1.2 kg*
- *IP-54*

VINGTOR

ANALOGUE EX TELEPHONES

DA24

TELEPHONE W/MF/LD KEYPAD DIAL, WATERTIGHT, EX-PROOF ZONE I

- Analogue Industrial Ex telephone
- The new generation 2100 Ex telephones in the dA24 series can be used in all explosion hazardous areas
- These telephone sets have a new, extremely robust keypad with 16 push buttons, also available with back-light
- The handset has an adjustable locking hook
- These phones have an attractive small, light and flat design
- They can be used as either main station or substation and can use both DTMF and pulse dialling
- It is possible to connect a headset or an additional receiver to the telephone
- The numeric keys can be programmed to perform different functions
- Additional push buttons, for example for distress call or for electronic switch-over between handset and headset can be delivered as option
- An integrated amplifier can be used by high environment noise level
- *Dimension (mm): 154W x 221H x 105D*
- *Weight: 1.95 kg*
- *IP-66*

DA24H

TELEPHONE WITH HEADSET W/MF/LD KEYPAD DIAL, WATERTIGHT, EX-PROOF ZONE I

- Telephone; same specification as DA24
- Push button for headset connection
- *Dimension (mm): 154W x 221H x 105D*
- *Weight: 1,95 Kg*
- Headset
- Ex type iHS
- *Weight: 0.335 Kg*
- *IP-54*

ALARM UNITS FOR ANALOGUE TELEPHONES

HB-90

TELEPHONE TONE CALLER IN DOOR 60-100V AC, 90 dBA

- The HB-90 extension tonecaller is ideal for use as an additional ringer unit, where the four different sounds on the switchable version enables the tiger to distinguish their phone ringing in a busy working environment
- Telephone line powered
- *Dimension (mm): 86W x 86H x 50D.*
- *Weight: 0.2 kg*

HB-105

TELEPHONE TONE CALLER 60-100V AC, 105 dBA WATERTIGHT

- HB-105 loud tonecaller is designed to replace the traditional mains bell and is powered by the PABX and PSTN line voltage (60-100 V AC). A variable output (85-105 dBA) is possible by means of a potentiometer located within the unit. HB-105 is a suitable additional ringer device for telephones in weather exposed and noisy areas.
- *Dimension (mm): 90W x 90H x 118D*
- *IP-66*

IP DECT CORDLESS

DECT or Digital Enhanced Cordless Telecommunications is a European standard for digital cordless phones. Today the DECT standard is approved world wide.

The key components of the VINGTOR IP DECT are DECT infrastructure (base stations and repeaters) and DECT handsets. The VINGTOR IP DECT provides a very cost efficient implementation of system components, where DECT base stations connects directly to the ACM exchange over IP. In addition DECT repeaters can be provided to increase the radio coverage area. The DECT repeaters only require power connection.

Key characteristics of the VINGTOR IP DECT are:

- Radio coverage
  - o Indoor - max 50m
  - o outdoor – max 150m
- Handover + roaming between base stations
- Robustness even in hostile radio environments - using Dynamic Channel Selection and Allocation
- Encrypted radio communication
- Special purpose terminals
- Cost efficient implementations of system components

IP DECT INFRASTRUCTURE

221 100 0100
IP DECT SERVER 6000
- One server unit supports up to 256 bases and 4096 users
- Supports multi-cell base station design, each base with potential for repeaters
- Possibility for 32 simultaneous calls (without using a Media Server)
- Power over Ethernet (PoE) or external power supply (221 100 0110)
- *Dimension (mm): 164W x 164W x 54D*
- *Weight: 0,36 kg*
- *IP-42*

221 100 0130
IP DECT 30 USER LICENSE
- One needed per DECT Server 6000 installation - up to 30 users

221 100 0140
IP DECT 150 USER LICENSE
- One needed per DECT Server 6000 installation - up to 150 users

221 100 0150
IP DECT 500 USER LICENSE
- One needed per DECT Server 6000 installation - up to 500 users

221 100 0155
IP DECT 1500 USER LICENSE
One needed per DECT Server 6000 installation - up to 1500 users

221 100 0160
IP DECT 4096 USER LICENSE
• One needed per DECT Server 6000 installation - up to 4096 users

221 100 0600
IP DECT BASE FOR 6000 SERVER
• Up to 11 simultanous calls per base station
• Max 6 repeaters per base station
• *Dimension (mm): 100W x 100W x 38D*
• *Weight: 0,12 kg*
• *IP-42*

221 101 0100
IP DECT BASE 300
• One base unit supports up to 8 users
• Only single-cell confi guration
• Possibility for 6 simultaneous calls, repeaters can be added (one repeater takes one channel, maximum 3 repeaters)
• Power over Ethernet (PoE)
• *Dimension (mm): 100W x 100H x 38D*
• *Weight: 0.12 kg*

221 105 0100

BASE REPEATER WALL
- Possibility for 4 simultaneous calls
- Single and multi cell
- External power supply (221 105 0200)
- *Dimension (mm): 100W x 100H x 38D*
- *Weight: 0.12 kg*

221 105 0110

BASE REPEATER CEILING
- Possibility for 4 simultaneous calls
- Single and multi cell
- External power supply (221 105 0200)
- *Dimension (mm): 100W x 100H x 38D*
- *Weight: 0.12 kg*

221 105 0120

BASE REPEATER MOUNTING KIT
- Extends Wall Repeater up to 50 cm out from wall

221 105 0130

REPEATER PROGRAMMING KIT
Requires:
- Windows application
- RS232

221 105 0200

POWER SUPPLY, ROUGH EU
- Repeater, Rough phone charger, EX phone charger
- Input: 230V-50Hz 25mA
- Output: 9V DC, 300mA

221 105 0210

POWER SUPPLY, ROUGH EU
- Office phone charger
- Input: 100-240V 50/60 Hz 200mA
- Output: 6Vdc 350mA

VINGTOR

DECT HANDSETS & ASSOCIATED ELECTRICAL EQUIPMENT

221 110 0100
DECT HANDSET ROUGH
- CLIP (Calling Line Identity Presentation) – 10 digits
- Headset connector
- Loudspeaker
- Vibration alert
- IP54
- Speech/stand by time > 16/150h
- *Dimension (mm): 148W x 50H x 28D*
- *Weight: 0.13 kg*

221 110 0110
DECT HANDSET EX
- As Rough handset (221 110 0100) – and added
- EX approved (II2G II3D T60ºC EEx ib IIC T3)
- IP 64
- Speech/stand by time > 16/150h
- *Dimension (mm): 148W x 50H x 28D*
- *Weight: 0,13 kg*

221 110 0120
DECT HANDSET OFFICE
- Light phone for office use
- Color display
- Speech/stand by time > 24/200h
- *Dimension (mm): 146W x 48H x 19D*
- *Weight: 0.11 kg*

Note! One SIP Station License is needed for each handset

221 110 0210
ROUGH HANDSET CHARGER
- Needs power in addition

221 110 0215
EX HANDSET CHARGER
- Needs power in addition

221 110 0220
OFFICE HANDSET CHARGER
Needs power in addition

221 110 0600
BATTERY FOR DECT ROUGH

221 110 0605
BATTERY FOR DECT EX

221 110 0610
BATTERY FOR DECT OFFICE

DECT HANDSETS NON-ELECTRICAL EQUIPMENT

221 110 0700
BELT CLIP FOR DECT ROUGH & EX
- Belt clip connector also necessary

221 110 0705
BELT CLIP CONNECTOR FOR DECT ROUGH & EX
- Belt clip also necessary

221 110 0710
BELT CLIP FOR DECT OFFICE
- Belt clip connector also necessary

221 110 0715
BELT CLIP CONNECTOR FOR DECT OFFICE
- Belt clip also necessary

221 110 0702
LEATHER POUCH BELT CLIP FOR DECT ROUGH & EX
- Leather pouch handle also necessary

221 110 0707
LEATHER POUCH HANDLE FOR DECT ROUGH & EX
- Leather pouch belt clip also necessary

221 110 0712
LEATHER POUCH BELT CLIP FOR DECT OFFICE
- Leather pouch handle also necessary

221 110 0717
LEATHER POUCH HANDLE FOR DECT OFFICE
- Leather pouch belt clip also necessary

HEADSETS FOR THE DECT HANDSET

221 120 0100
LIGHT MONO HEADSET W/HOOK SWITCH

221 120 0101
HEADSET FOR DECT HANDSET ROUGH & EX
- Headset is not EX approved
- Extra broadband with soft padding for ideal comfort
- To be used in noisy areas
- Electret microphone with high noise suppression
- *Weight: 0.31 kg*
- *IP-54*

Wireless Paging System

The UHF Wireless Paging System has been developed to increase the accessibility and security of the crew who frequently move at work.

This system can be fully integrated with Zenitel Marine onboard communication systems to increase the efficiency of the crew operation.

Features

- Providing UHF wireless paging coverage on-board the entire vessel

- Useful in daily work for personal text messages or alarm message warnings of malfunctions that needs immediate action etc.

- Easy installation and maintenance

- 8 or 32 different alarm messages

- Individual and 5 group numbers are available

- Easy to interface to other systems like PABX, Intercom and Alarm systems

- Robust, shock resistant pocket receivers, dust and waterproof according to IP-66 class and high immunity to electric charges

- Compact and lightweight 86 x 51 x 19 mm receiver housing weighing only 89 g including battery

- Intrinsically safe versions of pocket receivers (EEx ib IIC T4)

- The receivers are easy to operate; accesses to all functions with one button

- The receivers have a two-line alphanumeric display with 24 characters. A message can contain up to 120 characters which are presented using the auto-scroll function. 10 messages can be stored, and max. memory capacity is 480 characters

PAGER UNITS
VMP-U912T

ANTENNA UNIT
K 70 20 21

Alternative 1

Alternative 2

ANTENNA UNIT
CXL-70

PABX INTERFACE (SERIAL INTERFACE)
T942PX T942SI

ALARM MODULE
T941AM/8 T941AM/32

CENTRAL UNIT
T942C

POWER SUPPLY
T930PSI

U952T

T930PSI

SPLITTER
2A2CS-500-15W-N

TERMINAL TRANSMITTER

POWER SUPPLY
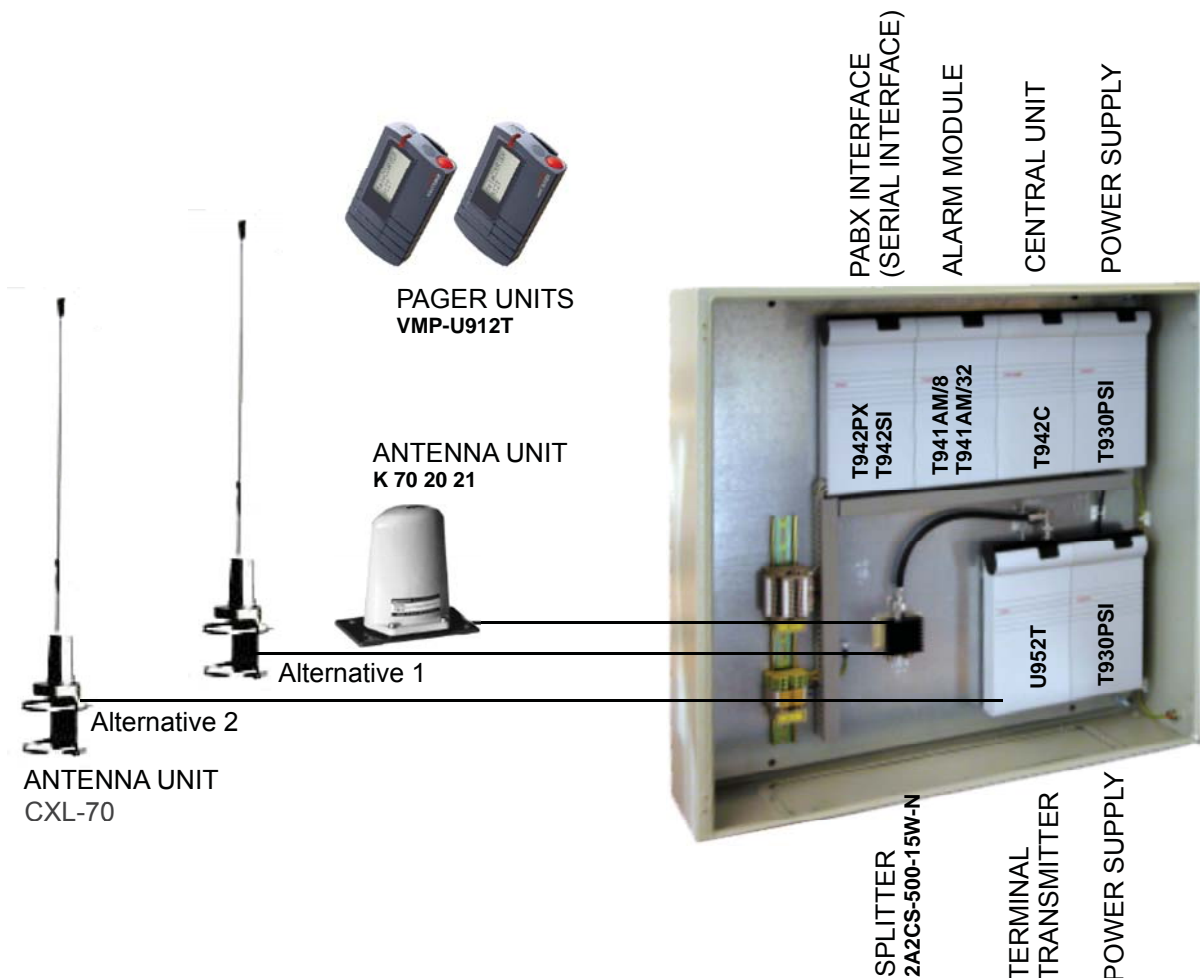
26102

U912T/B POCKET RECEIVER W/DISP BEEPER-LED AND VIBRATOR

Dust and waterproof in accordance with IP-66 classification, it is designed to withstand shock
- One button for all functions, Smart programming makes it easy to operate
- Group paging, one message is forwarded to several receivers
- *Dimension (mm): 86W x 51H x 19D*
- *Weight: 84 g (Including battery)*
- *IP-66*

26101

U912T, POCKET RECEIVER W/DISP.-BEEPER-LED

- Dust and waterproof in accordance with IP-66 classification, it is designed to withstand shock
- One button for all functions, Smart programming makes it easy to operate
- Group paging, one message is forwarded to several receivers
- *Dimension (mm): 86W x 51H x 19D*
- *Weight: 84 g (Including battery)*
- *IP-66*

26100

U912T/EX POCKET RECEIVER W/DISPLAY & VIBRATOR EX-APPROVED

- Intrinsically safe version, EEx ib IIC T4
- Dust and waterproof in accordance with IP-66 classification, it is designed to withstand shock
- One button for all functions, Smart programming makes it easy to operate
- Group paging, one message is forwarded to several receivers
- *Dimension (mm): 86W x 51H x 19D*
- *Weight: 84 g (Including battery)*
- *IP-66*

26200

PENLIGHT BATTERY TYPE IEC LR03 (AAA) (1 PER.RECEIVER)

- 1 per receiver

26000

T942C MAIN UNIT 12VDC/1A LICENS EXCLUDED

- Multiple central operation
- Continued operation if one central fails
- Robust buses (up to 60 modules per bus can be connected depending on configuration)
- Remote configuration and monitoring via modem
- Programming via WinBK software
- Non-volatile memory and real time clock
- Call diversion of paging
- Call transfer when absent
- Compatible with both paging, alarm and cordless telephony systems CTS 900 and 9d
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 0,6 kg*

26008

LICENSE FOR PAGING SYSTEM

26011

T941 AM/8 ALARM UNIT (8 ALAMS MAX) 12V DC/0.25A

- Preprogrammed messages
- Transient protected and un-polarized inputs
- Units are prepared for remote programming
- Up to 128 alphanumerical characters
- 64 alarm inputs (8 physical inputs + 56 logical inputs)
- Ring signal detection (AM8)
- Speech paging (AM8)
- Day/Night switching
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 0.6 kg*

26013

T941 AM/32 ALARM UNIT (32 ALARMS MAX) 12V DC/0.25A

- Preprogrammed messages
- Transient protected and un-polarized inputs
- Units are prepared for remote programming
- Up to 128 alphanumerical characters
- 64 alarm inputs (32 physical inputs + 32 logic inputs)
- Day/Night switching
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 0.6 kg*

26002

T942PX INTERFACE FOR PABX SYST 12V DC/0.5A

- Displays the caller´s telephone number
- Allows paging from telephones to both pager and pocket telephone
- Preprogrammed messages
- Different ring signals for internal and external calls
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 0.83 kg*

26001

T942SI SERIAL DATA INTERFACE RS422/232 - 12V DC/0.5A

- Uses four types of protocol; PSP2, PSP1, ESPA 4.4.4 or line protocol
- Equipped with function indictors
- RAM equipped with battery back-up (only when using PSP2 application)
- Durable design
- Easy to mount
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 0.6 kg*

26021

NETPAGE-MB WITH 2-USER LICENS
(If more than 2 user license use 92762)

- Textmessage transfer from web browser to Pocket Units
- Predefined groups and predefined messages
- Message delivery status
- Additional message status (call diversion, absence, acknowledge)
- Remote erase of previously sent messages
- Buit-in phonebook
- Possibility to limit call number range
- Selectable beep code and priority
- Easy to customize user interface using HTML
- Automates calls via URL
- Easy administration by web browser
- TCP/IP based communication
- Pre-installed software
- UNITE-1 compliant
- Possibility to integrate with other web based system or application
- Possibility to password protect application
- Application accessible via WAP
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 0.55 kg*
- *IP-30*

92762

UPAC-M1

- Netpage 10 users
- ESPA (ten) protocol
- 2 alarm input
- 2 alarm output
- Web browser admin tool
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 0.6 kg*

26003

T930PS1, POWER SUPPLY FOR ABOVE MAX 4A - 220V AC

- Power supply for the 900 models
- Mounted in a 900 module plastic box
- Mains input 230V AC
- DC output 3.5 A
- Durable design
- Easy to mount
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 0.85 kg*

Note! 1 Power supply can handle 1 x transmitter, 1 x main and 1 x alarm unit,
if more modules is needed, 2 power supplies is required

26004
U952T, TRANSMITTER 5W - 12V DC/3.5A
- The Terminal Transmitter is part of the On Site Paging (OSP) - and Personal Security (PSS) systems
- Output power can be adjusted to comply with regulations of applicable authorities.
- The Terminal Transmitter communicates with the Central Unit in the system via the D-bus.
- The transmitter is housed in a 900 module plastic box with a metal heat sink and shield cover at the top
- *Dimension (mm): 130W x 275H x 60D*
- *Weight: 1.0 kg*

Note! 1 x T930PS1 needed per transmitter

34260
ANTENNA 410-470MHZ - K702021UNIT
- Low profile broad-band antenna in fibre glass dome.
- 410 - 470 MHz
- *Dimension (mm): 145W x 140H x 80D*
- *Weight: 0.5 kg*

34270
CXL-70, ANTENNA UNIT
- CXL70 Broad-band UHF rod antenna (coaxial dipole antenna) for outdoor mast mounting.
- 400 - 470 MHz
- *Dimension (mm): Lenght 680, max. 54 mm mast tubing*
- *Weight: 0.65 kg*

Note! If more than one antenna is needed, below splitters can be used
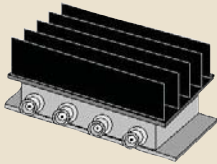
34090

ZB4CS-4-12-N, 4 WAY SPLITTER (FOUR ANTENNAS NEEDED)

- High power splitter for 4 antennas
- *Dimension (mm): 115W x 90H x 45D*
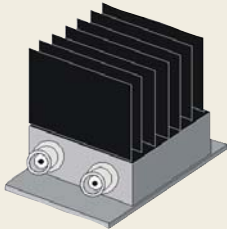
34110

ZA2CS-500-15W-N, 2 WAY SPLITTER (TWO ANTENNAS NEEDED)

- High power splitter for 2 antennas

EQUIPMENT MOUNTED IN CABINET

G0352

CABINET FOR 2 MODULES COMPLETE WITH ALL TERMINALS

- This is the perfect sub-cabinet in a larger paging system
- It is well suited when you need an extra transmitter module to have full coverage throughout the vessel. Add as many G0352 cabinets as needed to have full coverage
- One module can be fitted besides the power supply
- *Dimension (mm): 380W x 380H x 210D*

G0351

CABINET FOR 4 MODULES COMPLETE WITH ALL TERMINALS INCL ONE T930PSI

- This is the basic main paging central cabinet when you need only a few modules such as a PABX-module or an alarm module combined with one transmitter module into one cabinet
- Up to three modules can be fitted besides the power supply
- A central unit module is always needed in the main paging central cabinet
- Add G0352 cabinets if more transmitters are needed to have full coverage throughout the vessel
- *Dimension (mm): 600W x 600H x 210D*

G0350

CABINET FOR 8 MODULES COMPLETE WITH ALL TERMINALS

- This is the versatile main paging central cabinet when you need many modules in one cabinet, such as PABX-modules, alarm modules, serial interface modules and transmitters modules etc.
- Up to six modules can be fitted besides the 2 power supplies
- A central unit module is always needed in the main paging central cabinet
- Add G0352 cabinets if more transmitters are needed to have full coverage throughout the vessel
- *Dimension (mm): 760W x 760H x 210D*

Note! Low loss coax cable and connectors on request

Note! Important programming, setup etc.+3% of system pricelist value must be added

MCS Master Clock System

Marine Master Clock is the ideal solution for distribution of both Local and UTC time on board ships.

The Master Clock is equipped with several outputs and inputs for control of Slave Clocks as well as distribution of time to computers and other equipment needing correct time. The four Slave Clock outputs can be individually programmed for different types of clocks. External radio receivers / time synchronisation sources can be connected when higher accuracy is needed.

For control and regulation of various energy consumers such as electrical striking plates, buzzers for pause signalling etc, the master Clock has a built in yearly programmer with two relay outputs.

The Master Clock is equipped with 10 buttons and a 2 x 16 character LCD. To facilitate the change of time zone two of the buttons are dedicated for this purpose. A light dimmer makes it possible to adjust the background illumination to the surrounding light level.

Features

- Accuracy +/- 0.1 sec./24 hours

- Wide range of different slave clocks (digital, 65, Ex-proof, etc.)

- Easy cabling and calibration

- Accessories and options like radio- or satellite

- Signal receivers, RS232C/RS485 interface

- Alarm outputs, etc.

- Automatic summer- winter time change-over

VINGTOR
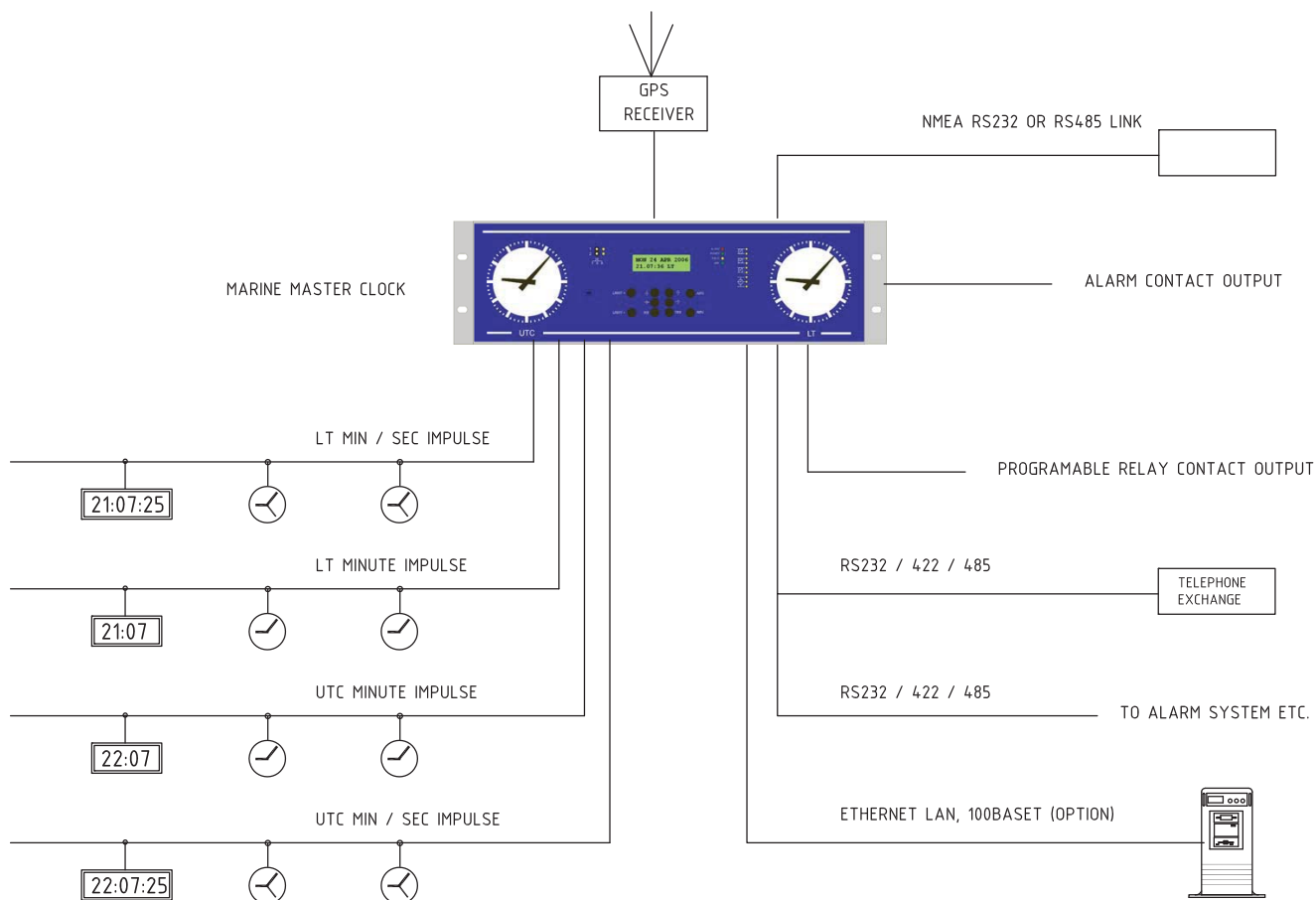
MASTER CLOCKS

70000

MARINE MASTER CLOCK

- Supports local and UTC (GMT) time
- UTC impulse output (hour, minute, second)
- 4 RS232/RS485 ports
- Power 230V AC/24V DC, 65W
- Rack mounting 19", 5HU
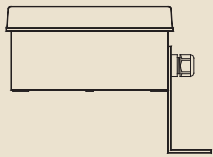- *Dimension (mm): 483W x 133H x 299D*
- *IP-20*

70000L

MARINE MASTER CLOCK, NETWORK TIME SERVER

- Supports local and UTC (GMT) time
- Network time server (NTP)
- UTC impulse output (hour, minute, second)
- 4 RS232/RS485 ports
- Power 230 VAC/24V DC, 65W
- Rack mounting 19", 5HU
- *Dimension (mm): 483W x 133H x 299D*
- *IP-20*

70100

GPS RECEIVER FOR MASTER CLOCK

- Used for time synchronization of master clocks 70000 and 70000L
- Plastic housing
- *Dimension (mm): 110W x 11H x 65D*
- *Weight: 0.3 kg*
- *IP-65*

SLAVE CLOCKS

51000
SLAVE CLOCK, 300 MM
- Slave clock for accommodation areas.
- Anodised aluminium housing and black hour and minute hands. The hands are protected by a convex glass and the clock is to be surface-mounted
- The time is set from the master clock by sending rapid impulses forward or backward
- *Dimension (mm): 300Ø x 58D*
- *Weight: 0.95 kg*

51010
SLAVE CLOCK, 230 MM
- Slave clock for accommodation areas
- Anodised aluminium housing and black hour and minute hands. The hands are protected by a convex glass and the clock is to be surface-mounted
- The time is set from the master clock by sending rapid impulses forward or backward
- *Dimension (mm): 250Ø x 58D*
- *Weight: 0.85 kg*

55000
SLAVE CLOCK 144x144 MM
- Slave clock for recessed mounting in console
- The clock is equipped with an adjustable background light and has black hour and minute hands. The hands are protected by a plain acrylic glass
- The time is set from the master clock by sending rapid impulses forward or backward
- *Dimension (mm): 144W x 144H*
- *Weight: 0.65 kg*

52000
RADIO SLAVE CLOCK
- Dual face slave clock for UTC and local time
- The housing is an anodised silver profile with a front cover of plexiglass
- It is generally for recessed wall / surface-mounting
- The clock has black hour and minute hands and a red stepping second hand
- Time is set from the master clock by sending rapid impulses forward for the UTC time and rapid impulses forward or backward for the local time
- *Dimension (mm): 340W x 150H*

51080
SLAVE CLOCK 300 MM, WATERTIGHT
- Slave clock for outdoor purposes.
- It has an anodised aluminium housing with black hour and minute hands. The hands are protected by a flat piece of glass
- It is to be surface-mounted
- Time is set from the master clock by sending rapid impulses forward or backward
- *Dimension (mm): 333Ø x 115D*
- *Weight: 1.15 kg*
- *IP-65*

VINGTOR

70090
SLAVE CLOCK, DECORATIVE, 300 MM
- Smoke coloured dial
- Hands and hour marks in brass
- 2 wire connection, time code
- 70000 and 70000L systems only

51095
DOUBLE FACED SLAVE CLOCK, 300 MM
- With bracket for wall mounting
- Rapid impulsing forward and backward
- *IP44*

51075
DIGITAL CLOCK, HOUR+MIN. 315x130x65MM
- Digit height 60 mm
- Rapid impulsing forward and backward
- Power 230V AC
- *Weight: 1,9 kg*

Entertainment Systems

Good entertainment on board the ship is a critical factor for the people working there. After a long shift, workers need to recharge batteries in preparation for the next days challenges. Here is where the TV and radio entertainment system plays an essential role.

Zenitel supplies entertainment equipment from the leading manufacturers in the field. High quality and long fault free operation are things you can take for granted.

The VINGTOR entertainment solution provides a complete entertainment system for ships. The solution consists of two main parts – a Naval TV/radio satellite system and a TV/radio onboard distribution system.

Naval TV-Satellite system

On-board TV distribution
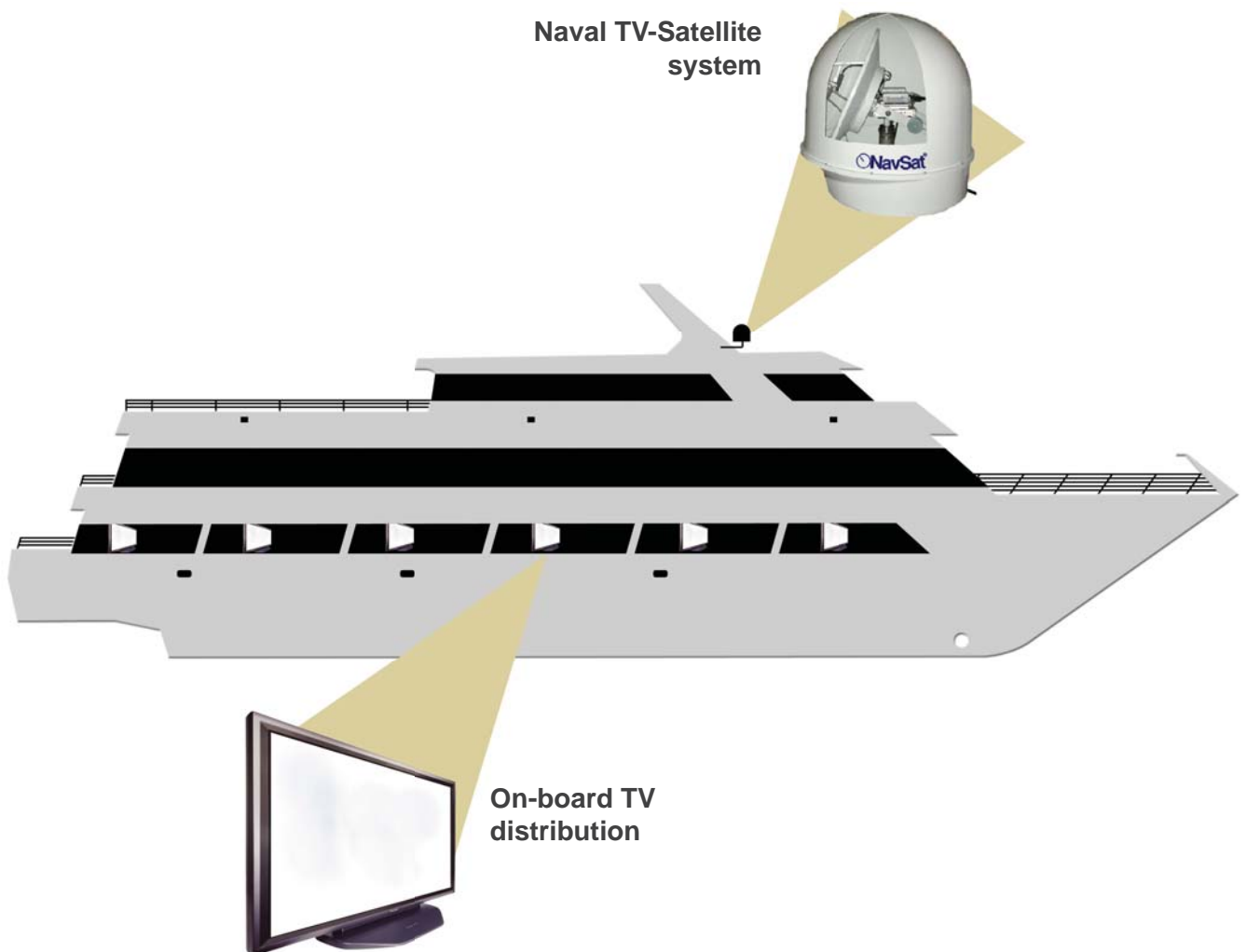
## CONVENTIONAL TV/RADIO DISTRIBUTION SYSTEM

The VINGTOR Conventional TV/Radio Distribution System includes central equipment and TV/radio outlets to distribute the TV and radio signals over a Coax network. In addition the system includes TV/radio antenna that can take down analogue terrestrial TV/radio signals.
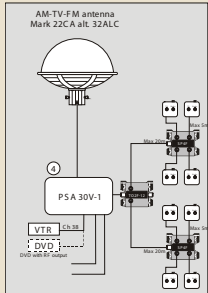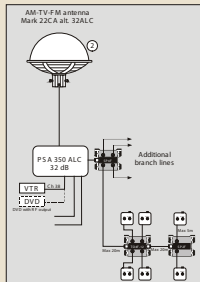
G9308-1
ENTERTAINMENT SYSTEM WITH 8 OUTLETS
- 1 Mark 22CA   with BNC + 25m coaxial cable, TV_AM-FM antenna
- 1 PSA 30V-1   power supply and signal amplifier
- 2 SP4F   4-way splitter, 0,5-1000 MHz
- 1 TO2F-12   2-way, 12db tap off, 0,5-1000 MHz
- 8 N1   TV/Radio outlets, 0,1-1000 MHz
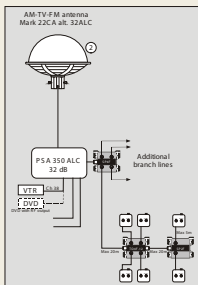
G9316-1
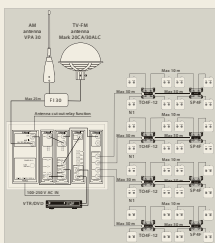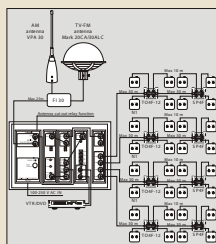### ENTERTAINMENT SYSTEM WITH 16 OUTLETS
- 1 Mark 22CA   with BNC + 25m coaxial cable, TV_AM-FM antenna
- 1 PSA 350ALC   power supply and signal amplifier
- 1 SP2F   2-way splitter, 0,5-1000 MHz
- 2 SP4F   4-way splitter, 0,5-1000 MHz
- 2 TO4F-12   4-way, 12db tap off, 0,5-1000 MHz
- 16 N1   TV/Radio outlets, 0,1-1000 MHz

G9324-1
ENTERTAINMENT SYSTEM WITH 24 OUTLETS
- 1 Mark 22CA   with BNC + 25m coaxial cable, TV_AM-FM antenna
- 1 PSA 350ALC   power supply and signal amplifier
- 1 SP4F   4-way splitter, 0,5-1000 MHz
- 4 SP2F   2-way splitter, 0,5-1000 MHz
- 4 TO4F-12   4-way, 12db tap off, 0,5-1000 MHz
- 24 N1   TV/Radio outlets, 0,1-1000 MHz

G9332-1
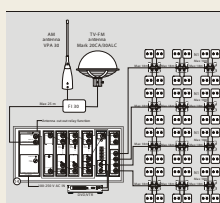### ENTERTAINMENT SYSTEM WITH 32 OUTLETS
- 1 Mark 20CA   with BNC + 25m coaxial cable, TV -FM antenna
- 1 VPA30   AM (MW) antenna
- 1 FI 30   filter/combiner for Mark20 and VPA30
- 1 PS 3522   power supply 230/115 Vac
- 1 A3540   TV signal amplifier
- 1 A3560   AM-FM signal amplifier
- 1 OF3581   output filter
- 1 CA3050   cabinet CAS system
- 4 SP4F   4-way splitter, 0,5-1000 MHz
- 4 TO4F-12   4-way, 12db tap off, 0,5-1000 MHz
- 32 N1   TV/Radio outlets, 0,1-1000 MHz

VINGTOR

G9340-1
ENTERTAINMENT SYSTEM WITH 40 OUTLETS
- 1 Mark 20CA   with BNC + 25m coaxial cable, TV -FM antenna
- 1 VPA30   AM (MW) antenna
- 1 FI 30   filter/combiner for Mark20 and VPA30
- 1 PS 3522   power supply 230/115 Vac
- 1 A3540   TV signal amplifier
- 1 A3560   AM-FM signal amplifier
- 1 OF3581   output filter
- 1 CA3050   cabinet CAS system
- 4 SP2F   2-way splitter, 0,5-1000 MHz
- 4 TO4F-12   4-way, 12db tap off, 0,5-1000 MHz
- 4 TO4F-17   4-way, 17db tap off, 0,5-1000 MHz
- 40 N1   TV/Radio outlets, 0,1-1000 MHz

G9348-1
ENTERTAINMENT SYSTEM WITH 48 OUTLETS
- 1 Mark 20CA   with BNC + 25 m coaxial cable
- 1 VPA30   AM Antenna (Aerial)
- 1 FI 30   filter for combining MK20CA and VPA30
- 1 PS3522   Power supply 230/117 VAC
- 1 A3550   TV amplifier BNC (band I)
- 1 A3551   TV amplifier BNC (band III)
- 1 A3552   TV amplifier BNC (band IV-V)
- 1 A3565   AM-FM amplifier BNC
- 1 OF 3581   output filter BNC
- 1 CA3050   cabinet CAS
- 4 SP4F   4-way splitter, 0,1-1000 MHz
- 4 TO4F-12   4-way, 12 dB, TAP OFF, 0,1-1000 MHz
- 4 TO4F-17   4-way, 17 dB, TAP OFF, 0,1-1000 MHz
- 48 N1   TV/Radio outlet, 0,1-1000 MHz

Note! If more than 48 TV/radio outlets are required - please contact Zenitel Marine sales

NAVAL TV/RADIO SATELLITE WITH 8 OUTLETS

The system includes a gyro and GPS motion controlled satellite antenna made for marine environment. The system is shipped with separate control unit or PC to configure and lock the antenna to a satellite. 8 TV/radio outlets and an 8 port multi-switch are provided to distribute the TV/radio signals.

93963
NAVSAT-60/8 SYSTEM
- 1 93600   Navsat 60 Satellite Antenna - 0,6m dish diameter
- 1 93701   Export Packing
- 1 Power Supply   and Multiswitch - 8 outputs
- 8 x 93721   MX-600 Sat/TV/FM outlet

93964

NAVSAT-90/8 SYSTEM
- 1 93700 Navsat 90 Satellite Antenna - 0,9m dish diameter
- 1 93701 Export Packing
- 93702 Laptop incl software and programming cable
- 1 93718 PS120 Power Supply and Multiswitch - 8 outputs
- 8 x 93721 MX-600 Sat/TV/FM outlet

93965

NAVSAT-120/8 SYSTEM
- 1 93710 Navsat 120 Satellite Antenna - 1,2m dish diameter
- 1 93701 Export Packing
- 93702 Laptop incl software and programming cable
- 1 93718 PS120 Power Supply and Multiswitch - 8 outputs
- 8 x 93721 MX-600 Sat/TV/FM outlet

Note!   One tuner per outlet needed - local supply

Note!   For selection of sat.antenna, see antenna footprint on datasheet

BASIC NAVAL SATELLITE SYSTEM

The Naval Satelilte Systems includes gyro and GPS motion controled satellite antenna made for marine environment.
The system is shipped with seperate control unit or PC used to configure the antenna. The Basic Naval Satellite System is used to feed digital TV and radio signals from the satellite into conventional TV and radio distribution systems.

93966

NAVSAT-60 SYSTEM
- 1 93600 Navsat 60 Satellite Antenna - 0,6m dish diameter
- 1 93701 Export Packing
- 1 Power Supply and Multiswitch - 8 outputs

93967

NAVSAT-90 SYSTEM
- 1 93700 Navsat 90 Satellite Antenna - 0,9m dish diameter)
- 1 93701 Export Packing
- 93702 Laptop incl software and programming cable
- 1 93718 PS120 Power Supply and Multiswitch - 8 outputs

93968

NAVSAT-120 SYSTEM
- 1 93710 Navsat 120 Satellite Antenna - 1,2m dish diameter)
- 1 93701 Export Packing
- 93702 Laptop incl software and programming cable
- 1 93718 PS120 Power Supply and Multiswitch - 8 outputs

VINGTOR

The Interface to Conventional TV and Radio System provides functions to demodulate and tune the digital TV and radio signals received from the satallite into analogue TV and radio signals. See subchapter for Conventional TV and Radio Systems.

93969
BASIC TUNER MODULE FOR UPTO 5 TUNERS (CHANNELS)
- 1 x EBU-100 a2b Base frame for E-series modules
- 1 x EPP-100 a2b Power supply module, 100W for R-series

Note!   The basic tuner module does not include satalite tuners.
Up to 5 Sateltite tuners of type 93970 can be housed in the module.

93970
SATELLITE TUNER WITH MODULATOR - 1 PER CHANNEL
- 1 ESA-110 a2b sattelite receiver/decoder, NDS + Conax emb.
- 1 EVA-200 a2b TV modulator, VSB, 47-862
- 1 x 500021.01 DC-cable for E-series modules
- 1 x 500061.01 Audio/video cable, 1 x Phono/RCA

P/N
SIGNAL COMBINER TV AND RADIO SIGNALS

Note! For selection of sat.antenna, see antenna footprint on datasheet

MANUALS

CASNAVHB
HANDBOOK - CAS & NAVSAT

CAS300IS
INSTALLATION & SERVICE MANUAL - CAS-3000

Common Equipment

Power Supplies

A variety of Online Uninterruptible Power Supplies (UPS) with extra battery cabinets are available. The UPS are available in versions from 600W to 3500 W, all with a battery backup up providing power for 30 minutes. If your installation require even higher UPS capacity, additional UPS are available on request.

Loudspeakers

The VINGTOR loudspeaker range provides loudspeakers for all ship environment. The range includes flush mount and on wall version, fire retardant, watertight, horn speakers, ex speakers etc.

Volume Controls

The volume controls are suitable in a Public Address System. All volume controls are as a standard delivered for flush mounting. Wall mounted version are also available in the range of Volume Controls.

Microphones

The microphones are for the ETB, CTB and SPA systems. The variety of microphones ranges from the basic one to watertight, salt water resistant suitable for heavy duty outdoor operation.

Signal Units

Different types of rotary lights, signal units, sounders, bells and flashing beacons are used to provide visual call indication in noisy areas.

Cabinets

A wide variety of heavy duty cabinets are available. These are used in dusty areas as well as engine rooms and outdoor installations. The cabinets are IP-66, with plain wall mounting using a mounting plate.

Common Equipment

Power Supplies

Loudspeakers

Loudspeakers 20 ohm

Volume Controls

Microphones

Cabinets

Signal Units

VINGTOR

UPS – UNINTERRUPTIBLE POWER SUPPLIES

UPS-600
ONLINE UPS WITH EXTRA BATTERY CABINET GIVES 600W IN 30 MIN'S
- Input: 187 - 264V AC
- Output: 230V AC 50/60Hz

Cabinet 1:
- *Dimension (mm): 185W x 225H x 430D*
- *Weight: 15 kg*

Cabinet 2:
- *Dimension (mm): 185W x 225H x 430D*
- *Weight: 21 kg*

UPS-1000
ONLINE UPS GIVES 1000W IN 30 MIN'S
- Input: 187 - 264V AC
- Output: 230V AC 50/60Hz
- *Dimension (mm): 293W x 220H x 557D*
- *Weight: 38 kg*

UPS-1500
ONLINE UPS WITH EXTRA BATTERY CABINET GIVES 1500W IN 30 MIN'S
- Input: 187 - 264V AC
- Output: 230V AC 50/60Hz

Cabinet 1:
- *Dimension (mm): 293W x 220H x 557D*
- *Weight: 38 kg*

Cabinet 2:
- *Dimension (mm): 293W x 220H x 557D*
- *Weight: 29 kg*

UPS-3500
ONLINE UPS WITH EXTRA BATTERY CABINET GIVES 3500W IN 30 MIN'S
- Input: 187 - 264V AC
- Output: 230V AC 50/60Hz

Cabinet 1:
- *Dimension (mm): 537W x 310H x 580D*
- *Weight: 110 kg*

Cabinet 2:
- *Dimension (mm): 537W x 310H x 580D*
- *Weight: 73 kg*

Note! Other UPS on request

VINGTOR

LOUDSPEAKERS WITH TRANSFORMERS (100V LINE)

213 100 0100
CEILING LOUDSPEAKER, STEEL FIREDOME
- To be used together with 100V line amplifier
- Flush mount
- Selector for 10, 6, 4 or 2 Watts
- Fire retardant material and steel fire dome
- *Dimension: 200Ø x 101D*
- *Weight: 1.35 kg*
- *IP-44*

213 100 0200
CEILING LOUDSPEAKER, BATHROOM
- To be used together with 100V line amplifier
- Flush mount
- Selector for 6, 3, 2 or 1 Watts
- Steel fire dome
- *Dimension: 105Ø x 100D*
- *Weight: 0.65 kg*
- *IP - 44*

SAFE-10PTF
WALL LOUDSPEAKER, BATHROOM
- To be used together with 100V line amplifier
- 10 Watts
- With fuse
- *Dimension (mm): 206W x 104H x 55D*
- *Weight: 0.8 kg*
- *IP-44*

CAU-4T
WALL LOUDSPEAKER, WATERTIGHT
- To be used together with 100V line amplifier
- 4 Watts
- *Dimension (mm): 128W x 237H x 100D*
- *Weight: 1.9 kg*
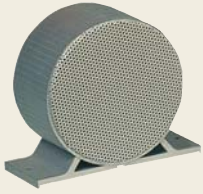- *IP-55*

CW-4T
WALL LOUDSPEAKER
- To be used together with 100V line amplifier
- 4 Watts
- *Dimension (mm): 250W x 170H x 88D*
- *Weight: 1.2 kg*

CW-4T/VOF
WALL LOUDSPEAKER, VOLUME CONTROL
- To be used together with 100V line amplifier
- With volume control, override and fuse
- 4 Watts
- *Dimension (mm): 250W x 170H x 88D*
- *Weight: 1.2 kg*

![VINGTOR logo]

CAR-4TF
LOUDSPEAKER, WALL MOUNTED 4W - W/FUSE
2 x M20 GLANDS
- Double faced loudspeaker for accommodation and corridors use
- *Dimension (mm): 152Ø x 90D*
- *Weight: 1.5 Kg*

VML-15T
HORNSPEAKER 15W, WATERTIGHT
- General purpose 15W horn loudspeaker
- To be used together with 100V line amplifier
- With 2.8m cable
- *Dimension (mm): 250W x 145H x 298D*
- *Weight: 1.35 kg*
- *IP-66*

JB-15T
JUNCTION BOX FOR VML-15T
- To be used together with 100V line amplifier
- *Dimension (mm): 97W x 90H x 58D*
- *Weight: 0.12 kg*
- *IP-66*

HP-15TF
HORNSPEAKER 15W, WATERTIGHT
- General purpose 15W horn loudspeaker with fuse
- To be used together with 100V line amplifier
- *Dimension (mm): 200Ø x 247D*
- *Weight: 1.7 kg*
- *IP-56*

HP-30T
HORNSPEAKER 30W, WATERTIGHT
- General purpose 30W horn loudspeaker
- To be used together with 100V line amplifier
- *Dimension (mm): 237Ø x 298D*
- *Weight: 2.3 kg*
- *IP-67*

DH-30
HORN, WATERTIGHT
- To be used together with DST-100, Driver 100 Watts
- *Dimension (mm): 325Ø x 345D*
- *Weight: 3.6 kg*
- *IP-67*

DH-50
HORN, WATERTIGHT
- To be used together with DST-100, Driver 100 Watts
- *Dimension (mm): 508Ø x 505D*
- *Weight: 5.15 kg*
- *IP-67*

DST-100
DRIVER 100 WATTS
- Driver for DH-30 and DH-50
- 100 Watts
- *Dimension (mm): 128Ø x 176D*
- *Weight: 2.5 kg*
- *IP-67*

CAREEX-6T
LOUDSPEAKER,ATEX-APPROVED 6W
- Double faced loudspeaker for accommodation and corridors use
- *Dimension (mm): 170Ø x 145D*
- *Weight: 4.0 Kg*
- *IP-53*

DSP-15EEExeNT
EX SPEAKER 15W WITH TWO CABLE INLETS ATEX APPROVED WATERTIGHT
- For 100V line
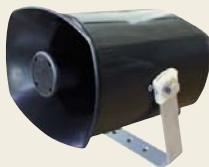- *Dimension (mm): 106W x 144H x 207D*
- *Weight: 2.2 Kg*
- *IP-67*

LOUDSPEAKERS 20 OHM

VML-1520
HORNSPEAKER 15 W, 20 OHM, WATERTIGHT
- * General purpose 15 W horn loudspeaker for use in deck areas, eng. room etc.
- * Used together with ACM or talk-back stations
- * With 2.8 m cable
- * *Dimension (mm): 250W x 145H x 270D*
- * *Weight: 1.35 Kg*
- * *IP-66*

DSP-15EEExeN
EX SPEAKER 15W WITH TWO CABLE INLETS ATEX APPROVED WATERTIGHT
- Impedance 20 ohm
- *Dimension (mm): 106W x 144H x 207D*
- *Weight: 2.2 Kg*
- *IP-67*

VOLUME CONTROLS

VM5-R
VOLUME CONTROL, 4 WIRE OVERRIDE, FLUSH, 5 W
- Volume control - 4 wire override for flush mounting
- Suitable in Public Address System with 24V override
- *Dimension (mm): 96W x 96H x 80D*
- *Weight: 0.4 Kg*
- *IP-44*

VM15-R
VOLUME CONTROL, 4 WIRE OVERRIDE, FLUSH, 15 W
- Volume control - 4 wire override for flush mounting
- Suitable in Public Address System with 24V override
- *Dimension (mm): 96W x 96H x 80D*
- *Weight: 0.4 Kg*
- *IP-44*

VM50-R
VOLUME CONTROL, 4 WIRE OVERRIDE, FLUSH, 50 W
- Volume control - 4 wire override for flush mounting
- Suitable in Public Address System with 24V override
- *Dimension (mm): 96W x 96H x 80D*
- *Weight: 0.4 Kg*
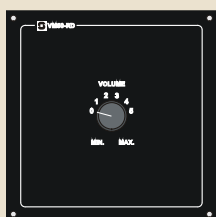- *IP-44*

SPA-BOXM1
WALL MOUNTING BOX FOR VOLUME CONTROLS
- For VM5-R, VM15-R AND VM50-R

VM15-RD
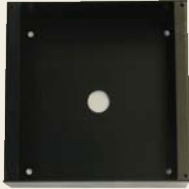**DUAL VOLUME CONTROL, 4 WIRE OVERRIDE, FLUSH MOUNT, 2 x 15 W**
- *Dimension (mm): 144W x 144H x 57D*
- *Weight: 0,7 Kg*
- *IP-44*

VM50-RD
DUAL VOLUME CONTROL, 4 WIRE OVERRIDE, FLUSH MOUNT 2 x 50 W
- *Dimension (mm): 144W x 144H x 57D*
- *Weight: 0,7 Kg*
- *IP-44*

STBOKS5
FOR VM15/50R WHEN WALL MOUNTED
• *Dimension (mm): 144W x 144H x 59D*
• *Weight: 0.22 kg*

Note! All volume controls are delivered for flush mounting, if not specified.

MICROPHONES FOR ETB, CTB AND SPA

MB-30G
GOOSENECK MICROPHONE
• Gooseneck microphone
• For use in Public Address and Talk-Back systems
• *Weight: 0.1 kg*

ETC-1-TB
HAND MICROPHONE WITH 5-PIN DIN PLUG
• Handheld microphone for use with ETB and CTB control panels
• *Weight: 0.2 kg*

P-66
HAND MICROPHONE WITH PLUG, WATERTIGHT
• Watertight, salt water resistant hand-held microphone / loudspeaker unit
• Suitable for heavy duty outdoor operation subject to noise disturbance
• Delivered with 2 meter flexible cable and plug
• For use in Public Address and Talk-Back system
• *Weight: 0.3 kg*
• *IP-66*

P-66/10
HAND MICROPHONE WITH PLUG AND 10 m CABLE, WATERTIGHT
• Watertight, salt water resistant hand-held microphone-loudspeaker unit
• Suitable for heavy duty outdoor operation subject to noise disturbance
• Delivered with 10 meter cord and plug
• For use in Public Address and Talk-Back system
• *Weight: 0.4 kg*
• *IP-66*

ECM-5
EXTENSION CORD 5 M FOR P-290, P-MT7, P-66
• Male and female plug in polyamid material with PG-13,5 cable inlet
• *Weight: 0.3 kg*
• *IP-66*

ECM-10
EXTENSION CORD 10 M FOR P-290, P-MT7, P-66
• Male and female plug in polyamid material with PG-13,5 cable inlet
• *Weight: 0.5 kg*
• *IP-66*

ETC-1-CH
CHASSIS CONTACT 5-PIN DIN FOR ETC-1-TB WITH 1 M CABLE
• Prepared with screw terminals for connections

VINGTOR

ROTARY LIGHTS

EHS-24O, EHS-24B, EHS-24G, EHS-24R
ROTARY LIGHT 24 VDC O(range) / B(lue) / G(reen) / R(ed)
- Rotary light for all systems
- Equipped with 1m cable
- To be mounted in noisy areas etc
- *Dimension (mm): 147Ø x 220H*
- *Weight: 0.9 Kg*
- *IP-54*

EHS-220O, EHS-220B, EHS-220G, EHS-220R
ROTARY LIGHT 230 VAC O(range) / B(lue) / G(reen) / R(ed)
- Rotary light for all systems
- Equipped with 1m cable
- To be mounted in noisy areas etc
- *Dimension (mm): 147Ø x 220H*
- *Weight: 1.0 Kg*
- *IP-54*

SIGNAL LIGHTS

PD2100AC
SIGNAL LIGHT W/BULB E14/15W 60MM - 240V AND LIFEBOAT SYMBOL
- *Dimension: 110W x 166H x 128D*
- *Weight in kg: 033*
- *IP-55*

SOUNDERS

A-100
ELECTRONIC ALARM HORN 24V DC WATERTIGHT, 100dB
- Audible signal device for all systems.
- Signal device do have the possibility for many different tones.
- To be wall-mounted in noisy areas like engine room etc.
- *Dimension (mm): 114W x 87H x 87D*
- *Weight: 0.26 Kg*
- *IP-55*

A-100AC
ELECTRONIC ALARM HORN 220V AC WATERTIGHT, 100dB
- Audible signal device for all systems.
- Signal device do have the possibility for many different tones.
- To be wall-mounted in noisy areas like engine room etc.
- *Dimension (mm): 114W x 87H x 87D*
- *Weight: 0.26 Kg*
- *IP-55*

⬡ VINGTOR

AL-100O
ELECTRONIC ALARM, ORANGE, 230 VAC
- Combined sounder and flash alarm in a small unit
- 32 alarm tones
- 3 stage alarm
- Dimension: 86/120W x 174H x 82D
- Weight in kg: 0,5
- IP-55

EXPLOSION PROOF BEACONS

BEX-24O
EX APPROVED LIGHT 24V DC WATERTIGHT O(RANGE)
- ATEX approved xenon warning light
- EX II 2 G EEx d IIC T5
- Dome color : Orange, red, yellow, green, blue, transparent
- *Dimension (mm): 153W x 154H x 246D*
- *Weight: 2.45 kg*
- *IP-66*

BEXS-220BAC, BEXS-220RAC
EX APPROVED LIGHT 220V AC WATERTIGHT B(LUE) / R(ED)
- ATEX approved xenon warning light
- EX II 2 G EEx d IIC T5
- Dome color : Blue, red
- Dimension (mm): 153W x 154H x 246D
- *Weight: 2.75 kg*
- *IP-66*

EXPLOSION PROOF BELLS - HORN

DHW2-24
EX SIGNAL BELL 24V DC WATERTIGHT, II 2 G EEx de IIC T6
- Loud signal bell with typical bell tone for warning, calling and indicating, approx. 105 dB (A)
- *Dimension (mm): 200Ø x 270D*
- *Weight: 6.0 Kg*
- *IP-66*

DHW1
EX SIGNAL BELL 230V AC WATERTIGHT, II 2 G EEx de IIC T6
- Loud signal bell with typical bell tone for warning, calling, indicating – approx. 105 dB (A)
- *Dimension (mm): 200Ø x 270D*
- *Weight: 6.0 Kg*
- *IP-66*

DHH1-230
EX SIGNAL HORN 230V AC 50/60 Hz WATERTIGHT, II 2 G EEx de IIC T6
- Loud signal horn with typical horn tone for warning, calling and indicating, approx. 105 dB (A)
- *Dimension (mm): 190Ø x 265D*
- *Weight: 5.5 Kg*
- *IP-66*

VINGTOR

BELLS

EXB-8230
BELL 8" 220V AC - 102dB INCL. BACKBOX
- Signal bell for all systems
- To be wall mounted in corridors etc
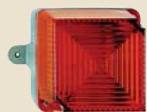- *Dimension (mm): 200Ø x 119D*
- *Weight: 2,7 Kg*
- *IP-65*

EXB-8240
BELL 8" 24V DC - 102dB INCL. BACKBOX
- Signal bell for all systems
- To be wall mounted in corridors etc
- *Dimension (mm): 200Ø x 119D*
- *Weight: 2,1 Kg*
- *IP-65*

FLASHING BEACONS

BLK5-24O, BLK5-24B
BLK5.024 FLASH BEACON 15-35V DC 5 JOULE WATERTIGHT, O(range) / B(lue)
- Optical signalling device of rugged design for indoor and outdoor use with compensation valve to prevent condensation
- *Dimension (mm): 107W x 107H x 104D*
- *Weight: 0,7 Kg*
- *IP-65*

BLK5-230O, BLK5-230B
BLK5.230 FLASH BEACON 230 VAC 5 JOULE WATERTIGHT, O(range) / B(lue)
- Optical signalling device of rugged design for indoor and outdoor use with compensation valve to prevent condensation
- *Dimension (mm): 107W x 107H x 104D*
- *Weight: 0,7 Kg*
- *IP-65*

COMBINED AUDIO / VISUAL

SON-16O, SON-16B, SON-16G, SON-16R
COMBINED AUDIO VISUAL 24V DC WATERTIGHT, 100 dB O(range) / B(lue) / G(reen) / R(ed)
- Well suited for fire and security purposes incorporating high sound output, low current consumption, high quality and simple installation.
- *Dimension (mm): 98W x 176H x 83D*
- *Weight: 0,51 Kg*
- *IP-55*

VINGTOR

CABINETS FOR OUTDOOR INSTALLATIONS
WATERTIGHT CABINETS IP-66

PLM-32

SEAWATER RESISTANT CABINET
- Plain wall mounting cabinet with mounting plate.
- *Dimension (mm): 310W x 215H x 160D*
- *Weight: 2.0 kg*
- *IP-66*

PLM-43

SEAWATER RESISTANT CABINET
- Plain wall mounting cabinet with mounting plate.
- *Dimension (mm): 430W x 330H x 200D*
- *Weight: 6.7 kg*
- *IP-66*

PLM-54

SEAWATER RESISTANT CABINET
- Plain wall mounting cabinet with mounting plate.
- *Dimension (mm): 530W x 430H x 200D*
- *Weight: 9.3 kg*
- *IP-66*

PLM-32M

PLM-32 W/REQUESTED EQUIP. MOUNTED, 4 x M20 CABLE GLANDS
- Plain wall mounting cabinet with mounting plate.
- *Dimension (mm): 215W x 310H x 160D*
- *Weight: 2.1 kg*
- *IP-66*

PLM-43M

PLM-43 W/REQUESTED EQUIP. MOUNTED, 4 x M20 CABLE GLANDS
- Plain wall mounting cabinet with mounting plate.
- *Dimension (mm): 330W x 430H x 200D*
- *Weight: 6.8 kg*
- *IP-66*

PLM-54M
PLM-54 W/REQUESTED EQUIP. MOUNTED, 4 x M20 CABLE GLANDS
- Plain wall mounting cabinet with mounting plate.
- *Dimension (mm): 430W x 530H x 200D*
- *Weight: 9.4 kg*
- *IP-66*

Note! If other type of glands needed, please specify

76R1005
STAINLESS STEEL CABINET, 1005600
- Plain wall mounting cabinet with mounting plate.
- *Dimension (mm): 380W x 300H x 210D*
- *Weight: 8.7 kg*
- *IP-66*

76R1007
STAINLESS STEEL CABINET, 1007600
- Plain wall mounting cabinet with mounting plate.
- *Dimension (mm): 500W x 500H x 210D*
- *Weight: 18.4 kg*
- *IP-66*

A long tradition in marine communication