



# EXIGO

NATIVE IP PUBLIC ADDRESS & GENERAL ALARM SYSTEM

# VINGTOR STENTOFON

by ZENITEL GROUP

Vingtor-Stentofon products are developed by the Zenitel Group and includes a range of high quality communications equipment and systems. Being in business since 1901, Zenitel's products are recognized globally for offering high quality communications for both offshore and onshore installations. Primary system offering within the Vingtor-Stentofon portfolio are Public Address and Intercom. Zenitel and the company's global partner network, also integrate these systems with other security devices; including Radio, CCTV, Access Control and Alarm for a comprehensive security solution.

Vingtor-Stentofon is world-renowned for its extensive knowledge in the design, construction, installation and maintenance of integrated marine communication systems. Leveraging our long-term experience serving the maritime industry, we offer an impressive portfolio and provide cutting edge solutions to vessels worldwide under the brand name of Vingtor-Stentofon. The Vingtor-Stentofon brand underpins our reputation as a supplier of the most flexible, reliable and advanced communication systems available today.

## MEETING YOUR REGULATORY REQUIREMENTS

All Vingtor-Stentofon products that form a part of critical communication have been tested according to IEC 60945, IEC 60533 standards, and comply with SOLAS regulations and codes relevant to on-board communication systems. Our systems are delivered in accordance with the rules of all major classification societies.

## FOR ALL YOUR SALES & AFTER SERVICE REQUIREMENTS

Vingtor-Stentofon 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.



2015



2013



2012



2011



2009



1952



1964



1975



1996



2001

<b>NATIVE IP PUBLIC ADDRESS &amp; GENERAL ALARM SYSTEM</b>	<b>4</b>
<b>CENTRAL EQUIPMENT</b>	<b>6</b>
<b>CALL &amp; ALARM PANELS INDOOR</b>	<b>7</b>
ACCESSORIES FOR PANELS INDOOR	<b>8</b>
<b>ACCESS PANELS OUTDOOR</b>	<b>9</b>
ACCESSORIES FOR ACCESS PANELS OUTDOOR	<b>9</b>
<b>ACCESS PANELS EX</b>	<b>10</b>
ACCESSORIES FOR ACCESS PANELS EX	<b>10</b>
<b>FLOWIRE</b>	<b>11</b>
<b>ENHANCED MONITORING</b>	<b>12</b>

# EXIGO

## NATIVE IP PUBLIC ADDRESS & GENERAL ALARM SYSTEM

The Exigo system is designed to meet the requirements of Public Address & General Alarm systems for offshore installations, ships and other demanding areas. The system is scalable and offers a set of standard and optional features making it ideal for all kinds of installations.

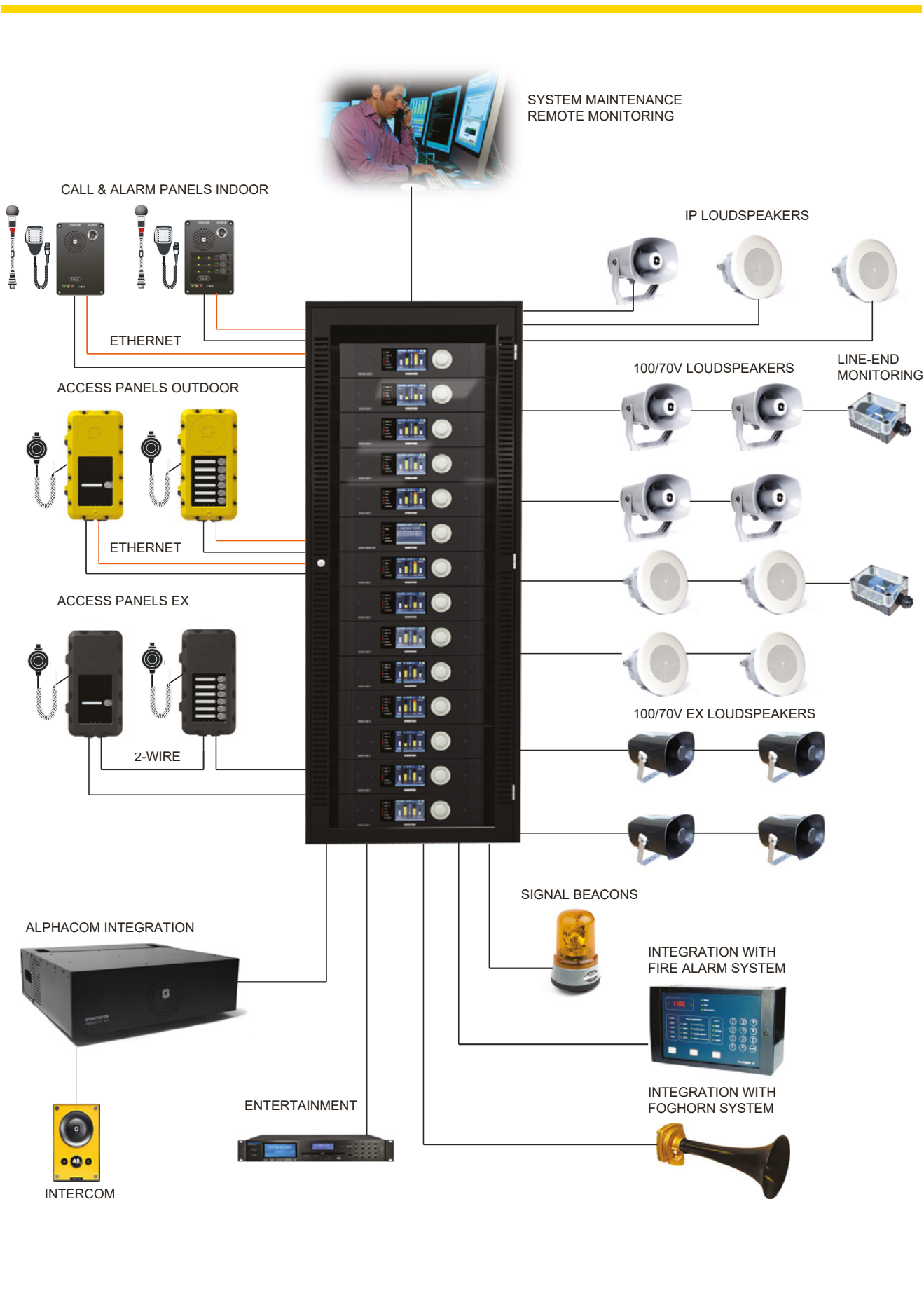
The Exigo system is a native IP system designed to use any type of network equipment and each device is self-monitoring. The devices themselves will report any faults to the system controller allowing for a centralized monitoring of all connected devices. The system controller is also the integration point for the system and enables a wide variety of integrations spanning from analog integration, digital IP-IP audio integration using SIP to remote monitoring using a SDK/API or SNMP.

The system can also utilize innovative addressable IP loudspeakers. The IP loudspeakers are individually addressable, configurable and monitored. Each IP loudspeaker features a maximum 10-watt audio effect and is powered over the Ethernet connection.

---

### FEATURES

- Native IP PA/GA system for robust and demanding environments
- Full monitoring of system components, call panels and speaker loops
- Class-D amplifiers with 100/70-volt line and Ethernet interface
- Supports 250 PA zones
- Control inputs and outputs
- Analog audio inputs and outputs
- Mains 115/230 Vac and 24/48 Vdc emergency power with automatic switch over
- Integration with PBX, typhoon and fire alarm
- Supports Integrated PA, GA and intercom solution
- Addressable IP loudspeakers supporting PoE (10 Watts)



# EXIGO CENTRAL EQUIPMENT



See Catalog  
"Common Equipment"  
for suitable system racks

1023000000

## ESC1 EXIGO SYSTEM CONTROLLER

- Control and routing of audio channels
- 115 - 230 VAC primary power and 24 - 48 VDC secondary power
- Redundant Ethernet connections
- Digital audio processing
- Receives, handles and stores fault messages from the system
- Interface to PABX and iPBX
- Interface to telecom management, safety, automation and security systems
- Voice message storage
- Programmable alarm generator
- 6 configurable control outputs
- 6 configurable control input



**Size (WxHxD): 482 x 87 x 390 mm**  
**Weight: 9.5 kg**

Additional Information: IP-32

1023102200

## ENA2200 EXIGO NETWORK AMPLIFIER 2 X 200 WATT POWER

- 2x 200 watt continuous GA effect
- 2x 200 watt PA effect
- Power efficient class D technology
- 110-230 VAC primary power and 24-48 VDC secondary power
- Redundant Ethernet connections
- Digital audio processing, equalizer and audio delay
- Tick tone generator
- Loudspeaker line monitoring
- Supports up to 10 Intelligent Line End Transponders
- Input for backup amplifier
- 6 configurable control outputs
- 6 configurable control inputs



**Size (WxHxD): 482 x 87 x 390 mm**  
**Weight: 13.0 kg**

Additional Information: IP-32

1023102400

## ENA2400-DC EXIGO NETWORK AMPLIFIER 2 X 400W POWER

- 2x 400 watt continuous GA effect
- 2x 400 watt PA effect
- Power efficient class D technology
- 48 VDC power
- Redundant Ethernet connections
- Digital audio processing, equalizer and audio delay
- Tick tone generator
- Loudspeaker line monitoring
- Supports up to 10 Intelligent Line End Transponders
- Input for backup amplifier
- 6 configurable control outputs
- 6 configurable control input



**Size (WxHxD): 482 x 87 x 390 mm**  
**Weight: 13.5 kg**

Additional Information: IP-32

1023102410

## ENA2400-AC EXIGO NETWORK AMPLIFIER 2 X 400W POWER

- 2x 400 watt continuous GA effect
- 2x 400 watt PA effect
- Power efficient class D technology
- 110-230 VAC power
- Redundant Ethernet connections
- Digital audio processing, equalizer and audio delay
- Tick tone generator
- Loudspeaker line monitoring
- Supports up to 10 Intelligent Line End Transponders
- Input for backup amplifier
- 6 configurable control outputs
- 6 configurable control input



**Size (WxHxD): 482 x 87 x 390 mm**  
**Weight: 13.5 kg**

Additional Information: IP-32



# EXIGO CALL & ALARM PANELS INDOOR



1023200030

## ECPIR-P EXIGO CALL PANEL, PTT BUTTON, PLUGGABLE MICRO- PHONE, ETHERNET

- Digital call panel for console mounting
- Communication and power over Ethernet
- Separate PTT button
- Indicators for power, call and fault
- Can be used with either handheld or gooseneck microphone
- For single or dual systems
- Up to four EBMDR-8 expansion modules can be connected



**Size (WxHxD): 96 x 144 x 50 mm**  
**Weight: 0.5 kg**

Additional Information: IP-32

1023200033

## ECPIR-3P EXIGO CALL PANEL, PTT + 3 BUTTONS, PLUGGABLE MICRO- PHONE, ETHERNET

- Digital call panel for console mounting
- Communication and power over Ethernet
- Three programmable buttons with individual labels and status indicators
- Separate PTT button
- Optional button protection covers
- Indicators for power, call and fault
- Can be used with either handheld or gooseneck microphone
- For single or dual systems
- Up to four EBMDR-8 expansion modules can be connected



**Size (WxHxD): 96 x 144 x 50 mm**  
**Weight: 0.5 kg**

Additional Information: IP-32

1023201008

## EAPIR-8 EXIGO ALARM PANEL, 8 BUTTONS, ETHERNET

- Digital alarm panel for console mounting
- Communication and power over Ethernet
- Eight programmable buttons with individual labels and status indicators
- Optional button protection covers
- Indicators for power, call and fault
- For single or dual systems
- Up to four EBMDR-8 expansion modules can be connected



**Size (WxHxD): 96 x 144 x 50 mm**  
**Weight: 0.5 kg**

Additional Information: IP-32

1023253008

## EBMDR-8 EXIGO BUTTON EXPANSION MODULE, 8 BUTTONS

- Button expansion module for Exigo access panels
- Powered from master access panels
- Eight programmable buttons with individual labels and status indicators
- Optional button protection covers
- For single or dual systems



**Size (WxHxD): 96 x 144 x 50 mm**  
**Weight: 0.5 kg**

Additional Information: IP-32

1008031000

### CRM-V IP FLUSH MASTER

- Made for Critical Communication over IP
- Connects directly to the IP network, no geographical limitations
- Large high contrast display with backlight for excellent readability
- White light behind all keys
- Four freely programmable single-touch keys (DAK)
- Superb audio technology
- Optional handset unit
- Remote upgrade, configuration and monitoring
- Note! For single PA system only



**Size (WxHxD): 125 x 280 x 30 mm**  
**Weight: 0.37 kg**

1008010100

### CRM-V DAK KEY EXPANSION MODULE FOR CRM-V, 48 KEYS

- Extends IP Flush Master Station with 48 programmable DAK keys (direct access keys)
- Ideal for PA, talk-back calls
- Visual indications with two LEDs (green/red) per DAK key
- All keys have backlight (adjustable)
- Easy labelling of keys
- Note! For single PA system only



**Size (WxHxD): 125 x 280 x 30 mm**  
**Weight: 0.65 kg**

1008097500

### CRM-V-GN GOOSENECK MIC

- Noise-cancelling gooseneck microphone for CRM-V IP Flush Master station
- Ideal for Public Address and control room applications



**Size (WxHxD): 90 x 32 x 45 mm**  
**Weight: 0.1 kg**

Additional information: IP-rating IP-32

## ACCESSORIES FOR PANELS INDOOR

3005020033

### MB-30G GOOSENECK MICROPHONE

- Electret Microphone, 2K ohm
- 5-pin DIN plug
- Microphone for Exigo ECPIR family



**Length: 460mm Weight: 0.1kg**

Additional information: IP-rating IP-32

1023533011

### EMMAR-1H HANDHELD MICROPHONE FOR ECPIR PANELS

- Handheld microphone for Exigo ECPIR family
- Stainless steel bracket included
- Push-To-Talk button
- 3-meter curly cord
- Equipped with locking DIN plug



1023595010

### EMBR-1 EXIGO DESKTOP MOUNTING BOX FOR ONE ACCESS PANEL



**Size (WxHxD): 104 x 188 x 74 mm**  
**Weight: 0.35 kg**

1023595020

### EMBR-2 EXIGO DESKTOP MOUNTING BOX FOR TWO ACCESS PANELS



**Size (WxHxD): 201 x 188 x 74 mm**  
**Weight: 0.7 kg**

Additional information:  
 1023595060 EMBR-6 Exigo kit for joining Boxes

**Size (WxHxD): 170 x 105 x 45 mm**  
**Weight: 0.3 kg**

Additional information: IP-Rating IP-32



# EXIGO ACCESS PANELS OUTDOOR



1023201201

## EAPII-1 EXIGO INDUSTRIAL ACCESS PANEL, 1 BUTTON

- Digital call and access panel for industrial environments
- DSP for acoustic signal processing
- Communication and power over Ethernet
- One programmable button with individual label and status indicators
- Optional button protection cover
- Indicators for power, call and fault
- Embedded or optional handheld microphone
- For single or dual systems (A and B systems)



**Size (WxHxD): 178 x 346 x 101 mm**  
**Weight: 1.9 kg**

Additional Information: IP-66  
1023594100 Optional button protection, info page 10

1023201206

## EAPII-6 EXIGO INDUSTRIAL ACCESS PANEL, 6 BUTTONS

- Digital call and access panel for industrial environments
- DSP for acoustic signal processing
- Communication and power over Ethernet
- Six programmable buttons with individual labels and status indicators
- Optional button protection covers
- Indicators for power, call and fault
- Embedded or optional handheld microphone
- For single or dual systems (A and B systems)



**Size (WxHxD): 178 x 346 x 101 mm**  
**Weight: 1.9 kg**

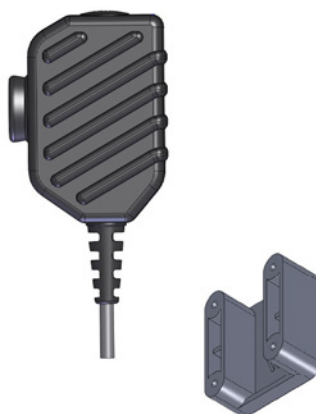
Additional Information: IP-66  
1023594100 Optional button protection, info page 10

# ACCESSORIES FOR ACCESS PANELS OUTDOOR

1023533312

## EMMAI-2H HANDHELD INDUSTRIAL MICROPHONE, COMPACT

- Handheld microphone for industrial applications
- PTT key
- Bracket included
- Noise cancelling microphone
- Designed for Exigo industrial access panels & Turbine industrial intercom stations
- Curled cord 0,75 m (contracted) / 2 m (extended)



**Size (WxHxD): 44 x 68 x 21,5 mm**  
**Weight: 0.22 kg**

Additional Information: IP-66

1008140100

## TA-10 RELAY MODULE

- Designed for use with Turbine Industrial IP Intercom stations
- Dual high-power relays (DPDT)
- Up to 400VAC /48 VDC per relay
- Up to 6A current per relay
- Heavy-duty spring-loaded terminals with spare grounding terminals
- Powered by Turbine Industrial stations (TFIE-x) or Turbine Extended Kit (TKIE-1)



**Size (WxHxD): 100 x 50 x 40 mm**  
**Weight: 0.1 kg**

# EXIGO ACCESS PANELS EX



1023221511

## EAPFX-1 EXIGO INDUSTRIAL EX ACCESS PANEL, 1 BUTTON

- Digital call and access panel for explosive atmospheres
- Ex mb ib e IIC T4 Gb
- DSP for acoustic signal processing
- IP networking and power over Flowire technology
- One programmable button with individual label and status indicators
- Optional button protection covers
- Indicators for power, call and fault
- Embedded or optional handheld microphone
- For single or dual systems (A and B systems)



Size (WxHxD): 178 x 346 x 101 mm Weight: 3.4 kg

Additional Information: IP-66  
Ex class Ex mb ib e IIC T4 Gb  
Optional button protection

1023221516

## EAPFX-6 EXIGO INDUSTRIAL EX ACCESS PANEL, 6 BUTTONS

- Digital call and access panel for explosive atmospheres
- Ex mb ib e IIC T4 Gb
- DSP for acoustic signal processing
- IP networking and power over Flowire technology
- Six programmable buttons with individual labels and status indicators
- Optional button protection covers
- Indicators for power, call and fault
- Embedded or optional handheld microphone
- For single or dual systems (A and B systems)



Size (WxHxD): 178 x 346 x 101 mm Weight: 3.4 kg

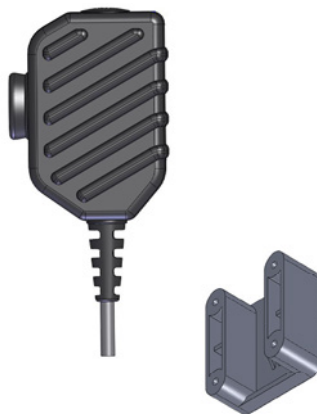
Additional Information: IP-66  
Ex mb ib e IIC T4 Gb  
Optional button protection

## ACCESSORIES FOR ACCESS PANELS EX

1023533511

## EMMAX-1H HANDHELD MICROPHONE WITH PTT FOR EX APPLICATIONS

- Handheld microphone for Ex applications
- Curled cord
- PTT key on handset
- Bracket included
- Noise cancelling microphone
- Designed for EXIGO Ex access panels & Turbine Ex explosion-proof intercom stations
- Curled cord 0,75 m (contracted) / 2 m (extended)



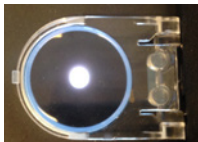
Size (WxHxD): 44 x 68 x 21,5 mm Weight: 0.22 kg

Additional Information: IP-66

1023594100

## EGA-1 EXIGO BUTTON PROTECTION COVERS, TRANSPARENT

- Button Protection Covers (10x), for TFIE/TFIX/EAPII/EAPFX



Size (WxHxD): 26,6 x 20,3 x 4,2 mm Weight: N/A

Additional Information: Set of 10x pcs.

# EXIGO FLOWIRE

The Flowire Converter enables Ethernet to run on the same two wires as power, enabling simpler cabling and opens up for longer cable hauls.

1008080110

## FCDC1 FLOWIRE ETHERNET CONVERTER, DC VOLTAGE

- One single pair of cable can be used to distribute power and data
- The cable hauls can be longer, reducing the need for switches and/or repeaters
- Up to 10 Flowire devices can be connected to the same 2-wire cluster
- Existing infrastructure can be used, even though only a single pair is available. This reduces the total cost of retrofit projects
- The Flowire converter can be used with any Ethernet enabled device (not limited to VINGTOR-STENTOFON products)
- Power 24 Vdc - 48 Vdc



Size (WxHxD): 120 x 65 x 13 mm Weight: 0.3 kg

1008080210

## FCDC2 FLOWIRE ETHERNET CONVERTER, DC VOLTAGE

- One single pair of cable can be used to distribute power and data
- The cable hauls can be longer, up to 2 km, reducing the need for switches and/or repeaters
- Up to 10 Flowire devices can be connected to the same 2-wire cluster star topology
- Existing infrastructure can be used, even though only a single pair is available. This reduces the total cost of retrofit projects
- The Flowire converter can be used with any Ethernet enabled device (not limited to Vingtor-Stentofon products)
- Protection IP-20
- **Important:**
- 24V DC non-PoE for Ex equipment
- FCDC2 Flowire is required for Ex Call & Alarm Panels

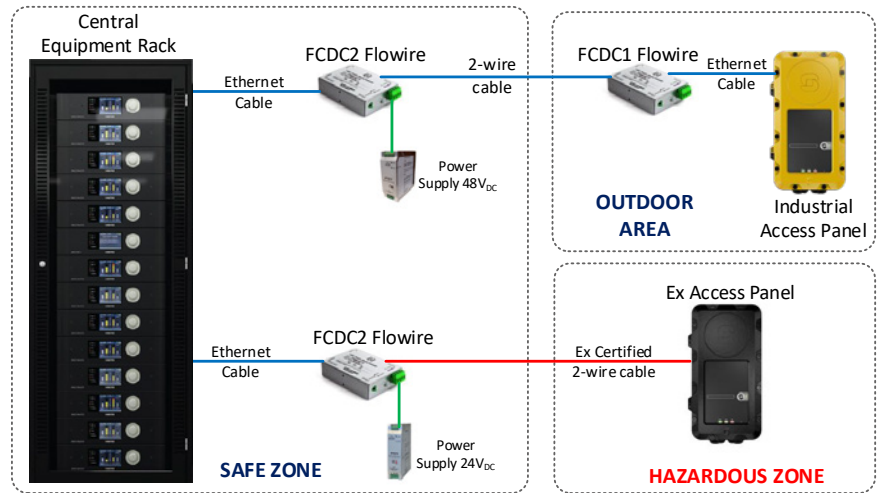


Size (WxHxD): 110 x 66 x 17 mm Weight: 0.3 kg

## Connection to Central Equipment Rack for Outdoor and Ex Access Panels

The Exigo Access Panels can use the 2-wire Flowire system for connection. Flowire is used to extend the Ethernet connection and support power distribution on the 2-wire cabling infrastructure. To support the Flowire interface, the central equipment rack must be equipped with an FCDC2 Flowire Converter. Each outdoor access panel will require its own FCDC1 Flowire Converter.

The Ex access panel located in the hazardous zone is connected to the central equipment rack located in the safe zone using an Ex certified 2-wire cable.



2990102244 / 2990102240

## FLOWIRE 250 POWERBOX PSU, 48VDC/24VDC, 250W

- EN60945 compliant
- Universal input (90 – 265 Vac)
- Efficiency above 90%
- Active Power Factor Correction
- Adjustable output
- Overload and overvoltage protection
- Thermal overload protection
- Conformal coating
- DC OK signal and potential free contact
- Cooling by free air convection
- RoHS compliant
- Internal redundancy diode
- Single or parallel mode user selectable
- 2990102244: 48VDC for FCDC1
- 2990102240: 24VDC for FCDC2 with Ex panels



Size (WxHxD): 132 x 50 x 128 mm Weight: 1.2 kg

2990102120

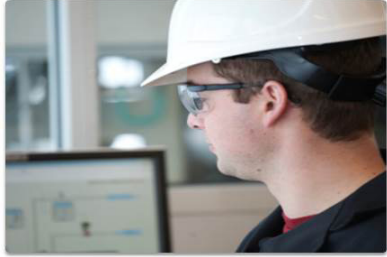
## FLOWIRE EX 120 POWERBOX PSU, 24VDC 120W

- EN60945 compliant
- Universal input (90 – 265 Vac)
- Efficiency above 90%
- Active Power Factor Correction
- Adjustable output
- Overload and overvoltage protection
- Thermal overload protection
- Conformal coating
- DC OK signal and potential free contact
- Cooling by free air convection
- RoHS compliant
- Internal redundancy diode
- Single or parallel mode user selectable



Size (WxHxD): 132 x 37 x 128 mm Weight: 0.92 kg

# EXIGO ENHANCED MONITORING



## ELTSI-1

The intelligent Line End Transponder ensures reliable monitoring of the loudspeaker lines. The Exigo amplifier knows how many Line End Transponders are used and will check that all of them are able to communicate with the amplifier according to the monitoring cycles. Where impedance measurements may result in an erroneous report of a broken line, the Line End Transponder will always report the correct health of the loudspeaker loop.

Up to 10 Line End Transponders may be connected to the same amplifier, making it possible to branch out the loudspeaker loops or distribute along the loudspeaker loop for more detailed fault reporting.

1023540000

### ELTSI-1 EXIGO INDUSTRIAL LINE END TRANSPONDER, IP67

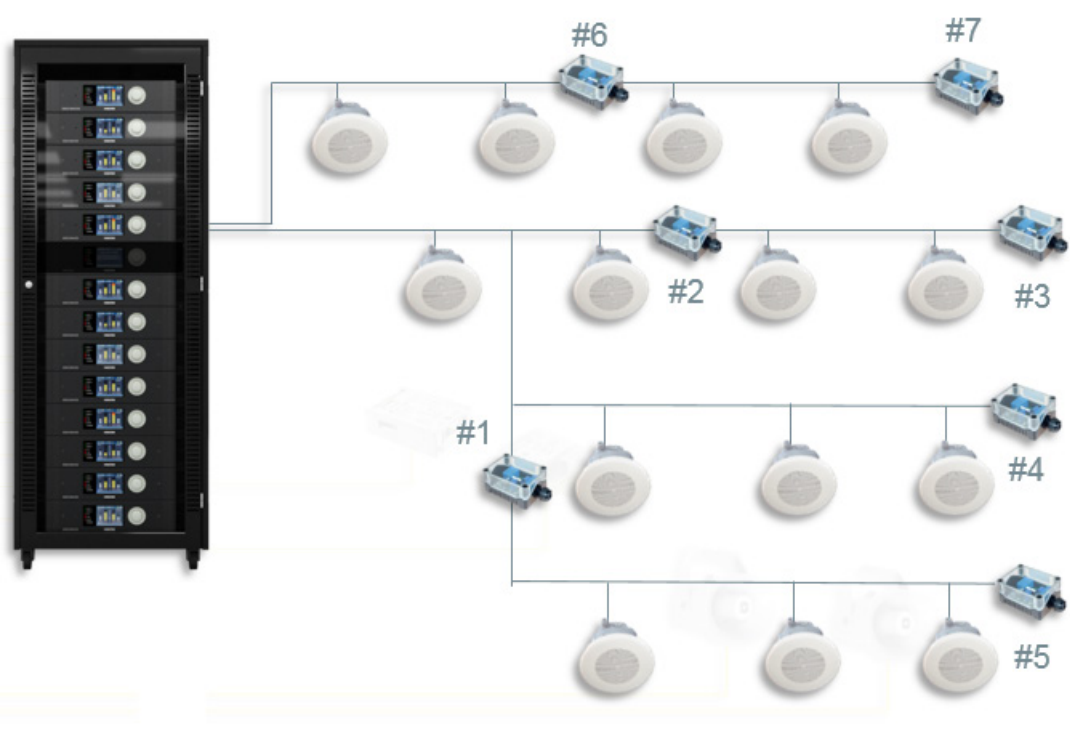
- Loudspeaker line end transponder
- Powered from and communicates over the loudspeaker lines
- Small and simple to install
- Rugged and weather proof housing



**Size (WxHxD): 80 x 106 x 53 mm**  
**Weight: 0.350 kg**

Additional Information: IP-67

## Line End Transponder Principle



[www.zenitel.com](http://www.zenitel.com)



**Theunissen Technical Trading BV** | Rijkweg 191, 6581 EK Malden, Nederland  
T +31 (0)24 358 44 55 | [info@tttbv.com](mailto:info@tttbv.com) | [www.tttbv.com](http://www.tttbv.com)

Zenitel and its subsidiaries assume no responsibility for any errors that may appear in this publication, or for damages arising from the information therein. Vingtor-Stentofon products are developed and marketed by Zenitel. The company's Quality Assurance System is certified to meet the requirements in NS-EN ISO 9001. Zenitel reserves the right to modify designs and alter specifications without notice. ZENITEL PROPRIETARY. This document and its supplementing elements, contain Zenitel or third party information which is proprietary and confidential. Any disclosure, copying, distribution or use is prohibited, if not otherwise explicitly agreed in writing with Zenitel. Any authorized reproduction, in part or in whole, must include this legend. Zenitel – All rights reserved.