PHΛSVESIS

Fire Alarm & Security Systems

Product Catalogue

Limitation of liability

It is mandatory, PH Svesis products to be installed in accordance with the manuals, applicable codes, and the instructions of the Authority Having Jurisdiction. The manufacturer shall not under any circumstances be liable for any incidental or consequential damages arising from loss of property or other damages or losses owing to the failure of products beyond the cost of repair or replacement of any defective products. The manufacturer reserves the right to make product improvements and change product specifications at any time.

The manufacturer assumes no responsibility for errors or omissions, while every precaution has been taken during the preparation of the manuals to ensure the accuracy of their contents.

Warranty

PH Svesis warrants its products to be free from defects in materials and workmanship under normal use for a period of two (2) years (the "Warranty Period") from the delivery date referring to Invoices, identified by Production Date code(s) indicated on the products. Because PH Svesis does not install the products and because the products may be used in conjunction with products not manufactured by PH Svesis, PH Svesis cannot guarantee the performance of the products and shall not be responsible in any way whatsoever for faulty installation or connection.

RoHS directive compliance

The EC RoHS guideline has been released in order to reduce the heavy metal load in electrical and electronic products caused by e.g. lead and mercury. All manufacturers are obligated to provide only RoHS-compliant products to the European market, effective from July 1st, 2006.

PH Svesis hereby states that all products are fully compliant with RoHS 2002/95/EC directive.

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.

2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.

3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.

4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

About

Paradox Hellas S.A. was founded on January 1990 and has established itself as the leading company in the Greek market in terms of import and wholesale distributor of Burglar Alarm, Fire Detection, CCTV and Access Control systems. Since 2003 it invested on designing, developing and manufacturing Fire alarm panels, accessories for security systems such as outdoor sirens, IP communication modules etc.

In 2017, Paradox Hellas Exports department was formed into a new company; **PH Svesis**.

PH Svesis distributes Fire Alarm and Fire Extinguishing products as well as a full range of related accessories and peripherals.

Product lines are available in the Greek market but, most importantly, exported to more than 20 countries worldwide, such as Hungary, Romania, Spain, Turkey, United Arab Emirates, Lebanon, Jordan, Nigeria, South Africa, Iran and India.

PH Svesis' HQ and fully automated robotic assembly lines are situated in the state of the art, fully owned production facilities of 2000 square meters, located at the 69th kilometer of Athens-Lamia national road.

Production facilities hold an active authorization to mark LPCB and CPR products with quarter-annual and annual planned certification programs from LPCB and EVPU respectively. All products are assembled and comply with the **ROHS** 2002/95/EC directive making them eligible for selling to any European Community country.

PARADOX HELLAS S.A. holds an active ISO9001:2015 certificate for the whole of its activities (operation, wholesale, support, design, manufacturing).

The company strives to develop and maintain long lasting business relationships with its partners. Keeping close to them and appreciating their valuable feedback, pushes the company to improve and expand constantly.

PH Svesis' philosophy is "products of the highest quality with services and support to match; all at competitive prices".
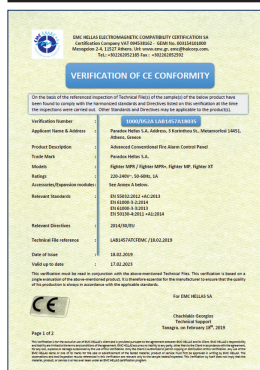
Certificates
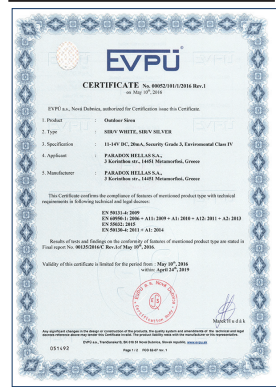
Matrix2000

Fighter / Fighter XT

SmartX
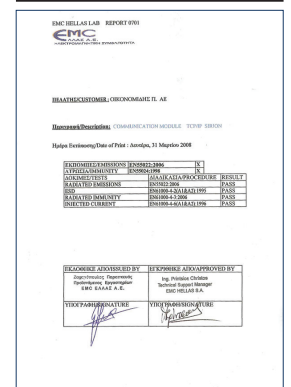

Neon

SIR/PLL

SIR/V

Arco, Elix & Exidus

Sirion

Company

- Matrix2000 is EN 54-2 & EN 54-4 certified from EVPU a.s.
- Fighter & Fighter XT are EN 54-2, EN 54-4 & EN 12094-1 certified from EVPU a.s.
- SmartX are EN 54-2 & EN 54-4 certified from LPCB and CE certified from EVPU a.s.
- SmartX Hochiki ESP compliance certificate.
- NEON is EN 54-2 & EN 54-4 certified from EVPU a.s.
- SIR/PLL & SIR/V are EN 50131-4 (Security Grade 3, Environmental Class IV) certified from EVPU a.s.
- ARCO, ELIX & EXIDUS are ENEC approved and certified to EN60598 from EVPU a.s.
- Sirion is CE certified from EMC Hellas.
- BUREAU VERITAS ISO 9001:2015.

Content

Fire Alarm Systems

smartX

single loop addressable fire alarm control panels

apollo
WORLD CLASS FIRE SOLUTIONS

HOCHIKI
ESP COMPATIBLE

S90
XP95
Discovery
ESP

General Specifications

- One Loop Addressable fire alarm control panels.
- 2 Conventional Zones (Maximum 20 detectors per zone).
- Day/Night operation, separate profile for each week day.
- Manual add/remove of loop devices.
- 2 Supervised Siren Outputs.
- 2 Logical Inputs.
- 2 Supervised Relay Outputs.
- Storage of up to 2,000 log events.
- Built-in communicator (Ademco Contact ID).
- System LED indications: Power, Fault, Alarm, Pre Alarm, Delay Active, Sirens Silenced, On Test.
- WalkTest installation testing feature.
- Customisable weekly reminder for system test.
- Real time clock.
- Remote software monitoring and programming.

Technical Specifications

Number of loops:	1
Loop current:	500mA (Hochiki), 400mA (Apollo)
Fire zones / Zonal indicators:	16 (smartX 116), 32 (smartX 132)
Conventional zones:	2 (Maximum 20 detectors per zone)
Conventional zones termination resistors:	4,7K Ohms / 1W
Supervised siren outputs:	2 outputs, 24VDC ±10%, 1A max, fused and monitored
Generic trouble output (on main unit) non monitored:	Dry relay contacts NO - C - NC
Analogue Inputs:	2 intern AUX pulled up inputs 1.5mA sinc current
Relay Outputs:	2 general relay outputs N/O or N/C (jumper selectable) dry contacts 28V/3A max
PGM Outputs:	4 PGM outputs Open collector, 200mA sink max current, 30V max handling
Earth faults detection and indication:	Front panel LCD indication & buzzer
Display:	4 lines of 20 characters LCD
Mains Power:	220 VAC 50Hz
Mains supply fuse:	1,6A 250
Power Supply:	24 VDC / 2.5A
AUX output:	24VDC +/- 10%, 700mA max, current limited, monitored
Battery Backup power:	2x 12V / 7Ah sealed lead acid gel batteries
Battery health monitoring (periodic load test):	Every 90 seconds
Enclosure:	Epoxy powder coated metal box
Dimensions (HxWxD)[mm]:	315 x 425 x 100
IP rating:	IP30

The SmartX fire panels offer:

- PSTN communicator for remote reporting of events.
- LOG event registry, up to 2.000 events.
- Bypasses (disablements) for inputs and outputs.
- Delayed outputs, Alarm verification for all inputs.
- Global evacuation triggered by any input, selectable at Access Level 3.
- Periodic test reminder.
- Walk test: An easy way to test the system by triggering one input at the time.
- TCP/IP expansion port provides remote monitoring and control with optional TCP/IP module.
- PC connectivity: The expansion port along with the required communication module permits PC connectivity for system supervision and operations.
- Direct activation of outputs from inputs regardless of alarm/evacuation state programmed at A.L.3.
- Group operations change specific attributes in groups of objects, making programming much more efficient.
- Autolearn function for loop devices.
- Backup/Restore configuration; Save current system configuration to on-board memory and restore it if needed.
- Real time clock/calendar with battery backup.
- Easy device identification through their LED indicators.
- Easy contamination levels/sensor health checks with device identification.
- Delayed group activation for cascaded evacuation schemes.
- Easy configurable inverse operation of outputs for high safety applications (e.g. fire doors).
- Programmable activation of outputs on faults/bypasses (required for fire doors in some locales).
- Easy identification of contaminated sensors with simultaneous LED activation on all troubled devices.
- User friendly interface: List based presentation with cursor keys navigation, filters and formatting of viewable information.
- On screen, context intelligent short help.
- User defined descriptions for all inputs, outputs and zones.
- Advanced Access level control: The system is not limited to the required by European and American standard.
- 3 access levels: It provides 8 Access Level 2 users plus one Master user that manages the rest. There is also the Access Level 3 user (installer) and an access codes reset mechanism.
- Main screen branding, Installer's contact info: The installer has one line (20 characters) on the main screen that can program to display any message he wishes (e.g. company name). Contact information (e.g. telephone number) may also be programmed into the panel for user reference.
- Convenient loop devices overview with alarms, faults and installed types indications.
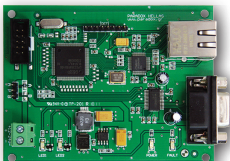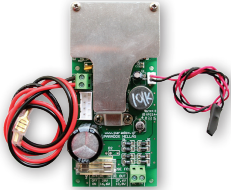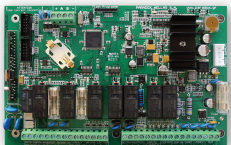- Visual overview of installed loop devices.

smartX

single loop analogue addressable fire alarm control panels

SmartX Panels

	Product	Description	Order Code
	SMARTX 116AP	**Single Loop Analogue Addressable control panel, based on Apollo's S90, XP95 & Discovery protocols** ▪ Zonal Indicators: 16 ▪ Fire Zones: 16.	**PH.SA.116.EN**
	SMARTX 132AP	**Single Loop Analogue Addressable control panel, based on Apollo's S90, XP95 & Discovery protocols** ▪ Zonal Indicators: 32 ▪ Fire Zones: 32.	**PH.SA.132.EN**
	SMARTX 116HO	**ESP Hochiki Single Loop Analogue Addressable control panel** ▪ Zonal Indicators: 16 ▪ Fire Zones: 16.	**PH.SH.116.EN**
	SMARTX 132HO	**ESP Hochiki Single Loop Analogue Addressable control panel** ▪ ▪ Zonal Indicators: 32 ▪ Fire Zones: 32.	**PH.SH.132.EN**

Keypad / Repeater

	Product	Description	Order Code
	SMARTX KSDA (APOLLO)	**Keypad/Repeater for Apollo's S90, XP95 & Discovery protocols SmartX fire alarm panels** ▪ LCD display with silicon rubber keypad ▪ Repeater for Access Level 1 & 2 ▪ Dimensions (HxWxD [mm]): 110 x 155 x 25.	**PH.KP.SMA.EN**
	SMARTX KSDA (HOCHIKI)	**Keypad/Repeater for Hochiki's ESP protocol SmartX fire alarm panels** ▪ LCD display with silicon rubber keypad ▪ Repeater for Access Level 1 & 2 ▪ Dimensions (HxWxD [mm]): 110 x 155 x 25.	**PH.KP.SMH.EN**

Accessories & spare parts

	Product	Description	Order Code
	SRTCP-IP	**Communication Module TCP/IP - RS232** ▪ Connects directly with SmartX panel's main board (LAN-RS232 connector) ▪ Gives the ability to access and control the SmartX fire alarm panel, locally through the RS232 port or remotely through the ethernet / internet (TCP/IP) in real time ▪ Note: The ethernet RJ45 network cable is not included.	**PH.SR.TCP.IP**

Product	Description	Order Code
FPS-6	**Switching stabilized power supply 27,6 VDC - 2A without transformer (PCB board only)** ▪ When connected to the SmartX main board it provides mains supervision, battery charger, battery health monitor (high internal impedance detection) and short circuit protection for the battery charger ▪ CE certified.	**PH.PS.006.V1**
SmarX Main Board	SmartX panel main board.	**PH.SM.1LP.MN**
16 Zones Keypad	SmartX panel's 16 zones keypad.	**PH.SM.116.GR**
32 Zones Keypad	SmartX panel's 32 zones keypad.	**PH.SM.132.GR**
SMARTX UPDATER KIT	**SmartX panels firmware updater kit**	**PH.FI.KIT UP**

Analogue Addressable Devices

Sensors

Product	Description	Order Code
ACC-EN(WHT)	**Multi-Sensor Optical/Heat (White case)** ▪ Removable, High Performance Chamber ▪ Pulsing/non-pulsing controlled from panel ▪ Electronically Addressed ▪ LPCB & VdS approved to classes A1 & C.	**HO.00.ACC.EN**
ALN-EN(WHT)	**Photoelectric Smoke Sensor (White case)** ▪ Removable, high performance chamber ▪ Locking mechanism (sensor to base) ▪ Electronically addressed ▪ Approved by LPCB & VdS to classes A1 & A2.	**HO.00.ALN.EN**
ALN-EN(WHT)-Z	**Photoelectric Smoke Sensor (White case)** ▪ Removable, high performance chamber ▪ Locking mechanism (sensor to base) ▪ Electronically addressed ▪ Approved by LPCB & VdS to classes A1 & A2.	**HO.Z0.ALN.EN**
ATJ-EN(WHT)	**Heat Sensor (White case)** ▪ User selectable modes ▪ Electronically addressed ▪ LPCB & VdS approved to classes A1, B & C.	**HO.00.ATJ.EN**
YBN-R/3(WHT)	**Sensor Mounting Base (White)** ▪ Takes 2.5mm^2 cables ▪ Slim profile - only 8 mm ▪ Rugged wiring contacts ▪ Facility for remote indicator ▪ Quick connection via square cable clamps.	**HO.BA.YBN.R3**
YBN-R/3(WHT)-SCI	**Short Circuit Isolator Base (White)** ▪ Converts standard mounting base to SCI base ▪ Easy to fit ▪ Ultra-slim profile ▪ Matches standard base colours.	**HO.SC.YBN.R3**
YBO-R/3(RED)	**Mounting Base for Wall Sounders (Red)** ▪ Takes 2.5mm^2 cables ▪ Slim profile - only 13 mm ▪ Rugged wiring contacts ▪ Quick connection via square cable clamps.	**HO.00.YBO.R3**

Audio/Visual

Product	Description	Order Code
CHQ-AB	**Addressable Beacon (Ivory case, red lens)** ▪ Non EN54-23 compliant ▪ Addressable via Hand Held Programmer (TCH-B200) ▪ Up to 127 devices per loop ▪ Approved by VdS.	**HO.00.CHQ.AB**
CHQ-AB(WHT)	**Addressable Beacon (White case, red lens)** ▪ Non EN54-23 compliant ▪ Addressable via Hand Held Programmer (TCH-B200) ▪ Up to 127 devices per loop ▪ Approved by VdS.	**HO.WH.CHQ.AB**
CHQ-ARI(WHT)	**Addressable Remote Indicator (White case, clear lens)** ▪ Non EN54-23 compliant ▪ Up to 127 devices per loop ▪ Approved by VdS ▪ Loop-driven visual indication of a water leak.	**HO.WH.CHQ.AR**
CHQ-WPK	**Weatherproofing Kit (red)** ▪ Increase IP Rating of audio/visual devices to IP65 (external use).	**HO.WS.WPK.00**
CHQ-WS2	**Wall Sounder (Red case)** ▪ Loop Powered ▪ Variable Sound Output 90 ~ 102 dB(A) (±2 dB(A)) output @ 1m ▪ 51 User-Selectable Tones (all tones EN54-3 compatible) ▪ Approved by LPCB & VdS.	**HO.00.CHQ.WS**
YBO-BS(WHT)	**Base Sounder (White case)** ▪ Variable Sound Output 50 ~ 98 dB(A) (±2 dB(A)) output @ 1m ▪ 51 User-Selectable Tones (all tones EN54-3 compatible) ▪ Auto-Shutdown feature prevents noise-pollution ▪ Approved by LPCB & VdS.	**HO.00.YBO.BS**

Analogue Addressable Devices

Modules

Product	Description	Order Code
CHQ-DIM2(SCI)	**Dual Input Module with SCI** ▪ Single Loop Address ▪ Loop Powered ▪ 2 Independent Inputs for Monitoring of Volt Free Contacts ▪ Approved by LPCB.	**HO.DM.CHQ.EM**
CHQ-DRC2(SCI)	**Dual Relay Controller with SCI** ▪ Single loop address ▪ Loop Powered ▪ 2 Independently controlled changeover relays ▪ Auxiliary monitored input ▪ Approved by LPCB ▪ Approved to SIL2.	**HO.00.CHQ.DR**
CHQ-DSC2(SCI)	**Dual Sounder Controller with SCI** ▪ Single Loop address ▪ Each alarm circuit fused at 1A ▪ Auxiliary monitored input ▪ Approved by LPCB.	**HO.00.CHQ.DS**
CHQ-DZM(SCI)	**Dual Zone Monitor with SCI** ▪ Single Loop powered ▪ Both zones fully monitored for short/open circuit ▪ Requires an auxiliary 24VDC supply ▪ Auxiliary monitored input ▪ Approved by LPCB.	**HO.00.CHQ.ZM**
CHQ-MRC2(SCI)	**Mains Relay Controller with SCI** ▪ Loop powered, with single loop address ▪ Single mains rated relay contact ▪ Auxiliary monitored input ▪ Integral short-circuit isolator.	**HO.00.CHQ.MR**
CHQ-SZM2(SCI)	**Single Zone Monitor with SCI** ▪ Loop powered ▪ Up to 6 Conventional Detectors ▪ Single loop address ▪ Fully monitored for short and open circuit faults ▪ Integral short-circuit isolator ▪ Approved by LPCB & VdS.	**HO.00.CHQ.SZ**
CHQ-POM	**Powered Output Module** ▪ Supplies 24 VDC at various current levels, 2 mA to 32 mA in increments of 2 mA ▪ User-selectable current output ▪ Includes two monitored inputs.	**HO.00.CHQ.PO**
CHQ-SIM	**Single Input Module** ▪ Includes a single monitored input ▪ Small design for simple provision of a monitored input onto an ESP loop ▪ Approved by LPCB & VdS.	**HO.00.CHQ.SI**
CHQ-SOM	**Single Output Module** ▪ Includes a single monitored output ▪ Small design for simple provision of a monitored output onto an ESP loop.	**HO.00.CHQ.SO**

Manual Call Points
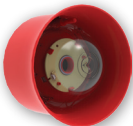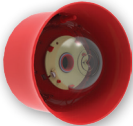
Product	Description	Order Code
HCP-E(SCI)	**Addressable Call Point with SCI (Red)** ▪ Fast response ▪ Integral short-circuit isolator ▪ Bi-coloured status LED ▪ Non-frangible element fitted as standard (conforms to EN54) ▪ LPCB Approved to EN54.	**HO.SC.HCP.E0**
HCP-W(SCI)	**Weatherproof Addressable Call Point with SCI (Red)** ▪ Fast response ▪ Integral short-circuit isolator ▪ Bi-coloured status LED ▪ Non-frangible element fitted as standard (conforms to EN54) ▪ IP67 rated ▪ LPCB approved to EN54.	**HO.WP.HCP.00**

EN54-23 Base Sounder Beacon

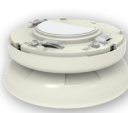| Product	Description	Order Code
YBO-BSB2(WHT)/RL	**Base Sounder Beacon (White case, red LEDs)** ▪ Loop Powered with Single Loop Address ▪ Variable Sound Output 50 ~ 98 dB(A) (±2 dB(A)) output at 1 metre ▪ 51 User-Selectable Tones (all tones EN54-3 compatible) ▪ Auto-Shutdown feature prevents noise-pollution ▪ Approved by LPCB & VdS.	**HO.YB.BSB.20**

Analogue Addressable Devices

EN54-23 Intelligent Wall Sounds Beacons

Product	Description	Order Code
CHQ-WSB2/RL	**Wall Sounder Beacon (Red case, red LEDs)** ▪ Auto-Shutdown feature prevents noise pollution ▪ 51 User-Selectable Tones (all tones EN54-3 approved) ▪ Variable Sound Output 90 ~ 102 dB(A) (±2 dB(A)) output @ 1 m ▪ O' Rated Beacon to EN54-23 ▪ Weatherproof Kit available.	HO.CH.WSB.RL
CHQ-WSB2/WL	**Wall Sounder Beacon (Red case, white LEDs)** ▪ Auto-Shutdown feature prevents noise pollution ▪ 51 User-Selectable Tones (all tones EN54-3 approved) ▪ Variable Sound Output 90 ~ 102 dB(A) (±2 dB(A)) output @ 1 m ▪ O' Rated Beacon to EN54-23 ▪ Weatherproof Kit available.	HO.CH.WSB.RD

Programming

Product	Description	Order Code
TCH-B200	ESP Hand Held Programmer	HO.TC.HBI.00
PL-02	Programming Lead (Jack Plug to Croc Clip)	HO.PR.PL2.00
PL-03	**ESP Device Programming Lead 3-WAY CONNECTOR** ▪ For use with Hochiki devices with square connector ▪ Allows connection of TCH-B200 programmer.	HO.PR.PL3.00

fighter

unique conventional BUS expandable fire alarm & extinguishing system

General Specifications

- Advanced conventional fire alarm & extinguishing panel using Bus technology permitting flexible installations.
- Zone expandability; 8 to 72 zones using expansion modules (8 zones per module).
- Output expandability; 8 modules with 8 relays each.
- Up to a maximum of 8 keypads units.
- LCD keypad unit for supervision, monitoring, operation and programming of the system.
- Build-in DTMF communicator supports Ademco C.I.D. format.
- Remote supervision, monitoring, operation and programming of the system with TCP/IP connection and the SmartView software (optional).
- Intellizone and Cross-zone feature (up to 18 extinguishing areas).
- Walk Test feature.
- Day / Night feature.
- Serial (RS232) connection for programming the system through the "Fighter Serial Programmer" software and the RS-232/485 module (optional)
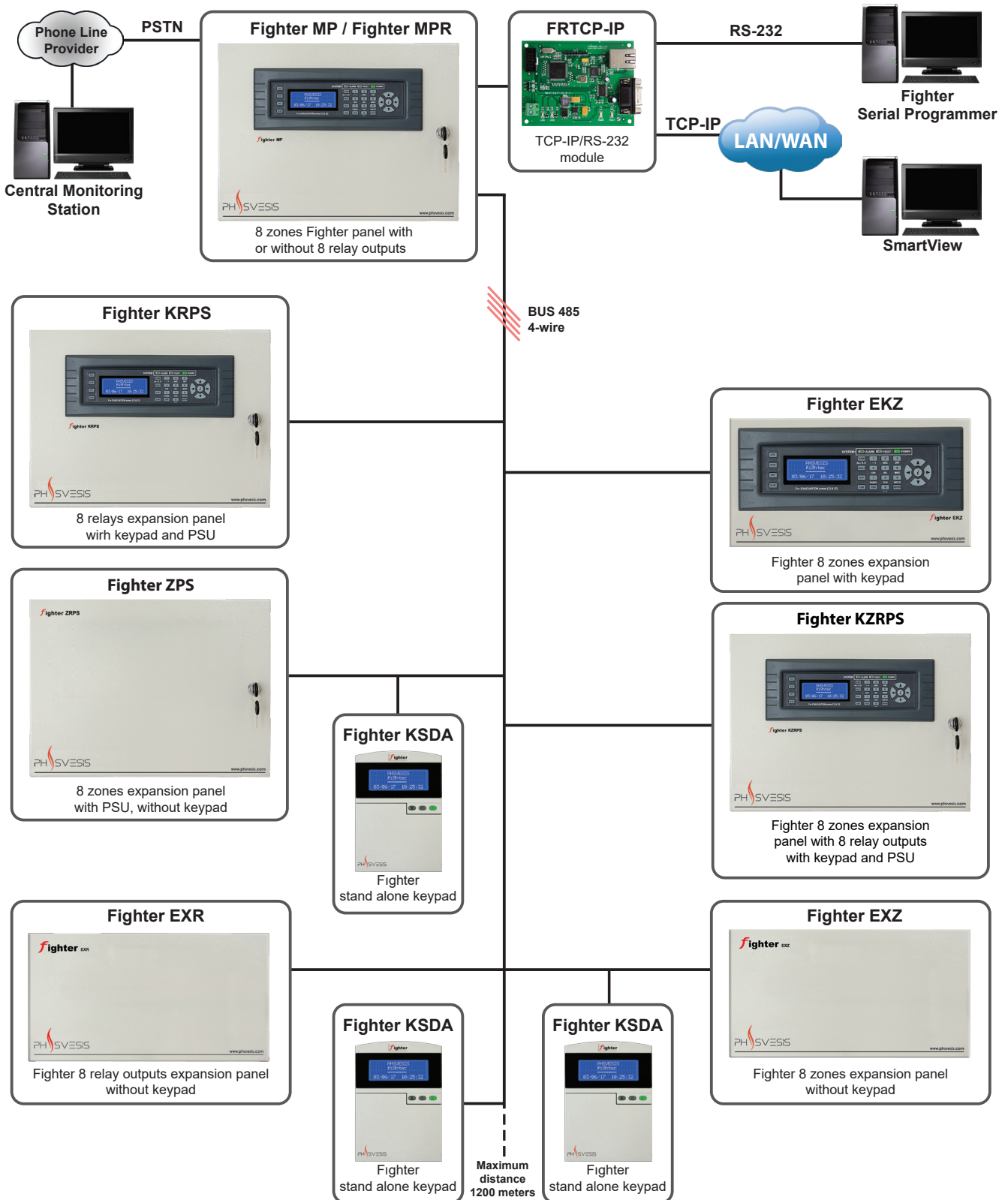- Certified to European directives EN 54-2:1997/A1:2006/AC:1999, EN 54-4:1997/A2:2006/AC:1999 & EN12094-1:2003 (Extinguishing).

Technical Specifications

Bus voltage	24VDC typical
Current at 24Vdc per PSU	1.8 A
Main board current draw [Standby / Alarm]	112 mA / 350 mA
Zones Expansion Module current draw [Standby / Alarm]	60mA / 220 mA
Relays Expansion Module current draw [Standby / Alarm]	40mA / 230 mA
Keypads current draw [Standby / Alarm]	25 mA / 110 mA
Auxiliary output	24VDC +/- 10%, 800 mA max, current limited, monitored
Batteries	2x 12V, 7Ah sealed lead acid gel, self regulated
Zone Inputs Voltage	16.3 VDC ±10%, 0,5 V max ripple voltage
Zone Reset Operation	0,5 VDC max voltage, duration 3,1 sec
Max total detector's standby current per zone	15 mA
Signalling devices outputs	24VDC ±10%, 1A max, fused and monitored
Fault relay contacts rating	Dry contacts (NO/NC) 30 VDC, 3 Amps
BUS system	4 wire RS485 bus system
Bus max length	1200m using typical RS485 cables
Bus Max capacitive load	400 nF
Dimensions (HxWxD [mm]) Main unit: Expansion modules (small box): Stand Alone LCD keypad KSDA:	315x425x100 (MP/MPR, KZRPS, KZPS, KRPS, ZRPS, ZPS) 170x320x50 (EKZ, EKR, EXZ, EXR) 155x110x28

ƒighter

unique conventional BUS expandable fire alarm & extinguishing system

Phone Line Provider

PSTN

Fighter MP / Fighter MPR

8 zones Fighter panel with or without 8 relay outputs

FRTCP-IP

TCP-IP/RS-232 module

RS-232

Fighter Serial Programmer

TCP-IP

LAN/WAN

SmartView

Central Monitoring Station

BUS 485 4-wire

Fighter KRPS

8 relays expansion panel wirh keypad and PSU

Fighter EKZ

Fighter 8 zones expansion panel with keypad

Fighter ZPS

8 zones expansion panel with PSU, without keypad

Fighter KSDA

Fighter stand alone keypad

Fighter KZRPS

Fighter 8 zones expansion panel with 8 relay outputs with keypad and PSU

Fighter EXR

Fighter 8 relay outputs expansion panel without keypad

Fighter KSDA

Fighter stand alone keypad

Maximum distance 1200 meters

Fighter KSDA

Fighter stand alone keypad

Fighter EXZ

Fighter 8 zones expansion panel without keypad

Full Fighter System Setup

The maximum Fighter system setup may include:
- 8 modules of zones expansion
- 9 modules of relays expansion: 8 + 1 relay expansion module of the Fighter Main Panel
- 9 keypads: 1 Fighter MP keypad and 8 keypads selectable through Fighter KSDA and "on panel" keypads.
- Up to 16 PSUs (Power Supply Unit): 1PSU per zones expansion module and/or relay outputs expansion module
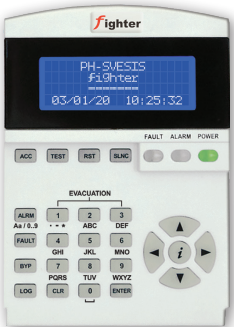
The Fighter system offers:

- Menu driven conventional fire alarm and extinguishing panel using 4-wire Bus technology. Expandability over RS-485, permitting flexible and cost optimized installations.
- Zones expandability: 8 to 72 analogue conventional detector inputs, using modules interconnected with 4-wire BUS. 8 zones per module.
- Cross-zoning/extinguishing operation: Up to 18 extinguishing areas with the full system setup. The system uses 4 zones and 4 relays to produce a very reliable alarm detection and commence a sequence of relay activations. Mainly used to drive extinguishing systems. Any group of 4 zones on any module along with their corresponding relays may be programmed as an extinguishing area.
- Outputs expandability: 8 to 72 relays using modules interconnected with 4-wire BUS. 8 monitored relays per module. Relay boards with one relay dedicated to each zone input: Each zone input is mirrored by a relay. When the zone is in alarm the relay is active producing 24 VDC.
- LCD keypad units for supervision, monitoring, operation and programming of the system Multiple display/ keyboard units (as repeaters): Up to 8 extra keypad units may be connected to the BUS. The system ensures correct inter-operation and implements a lock out mechanism if one keypad unit enters an elevated access level (2 or 3). The keypads have 4x20 alphanumeric LCD, and backlit ruler keys. Embedded help system provides vital in system information.
- Two general alarm siren relay outputs 24VDC/1A max (monitored): The two siren outputs get activated when an alarm condition is detected. The first of the two relays produce a constant output when active. The second can be programmed to produce an output pattern (e.g. ANSI evacuation pattern).
- 1 main general fault output (not monitored): Dry contact relay 3A max. Gets activated when any fault condition is detected.
- Power supply expansion: Up to 16 fully supervised power supply units (PSU) may be connected on expansion modules. The system is fully monitoring the AC supply, battery connections and health of each connected power supply. Power supplies are EN54-4 certified.
- Built in communicator: A PSTN line interface provides communication of events to a Central Monitoring Station. The communication format used is Contact ID.
- Automatic module detection upon installation (relay, zones and keypad modules).
- Easy module identification: Modules are easily identified with a selection mechanism from the keypad units and their status LED (selecting a module of interest will activate a specific blinking pattern on the selected module).
- Bypasses (disablements) for both zone inputs and relay outputs: Zone inputs and Relay outputs may be disabled independently from each other.
- Intellizone operation (Alarm verification): A system that provides a verification to an alarm condition before the alarm state is entered. Helps avoid false alarms by combining alarm signals in time and/or from different detector zones. Can be activated on selected zones and may have global or per module grouping.
- Day/Night operation: A system that reduces false alarms during specific hours of the day by using the intellizone feature. Used for example in smoking areas during working hours.
- 3 options for global evacuation: The system can use manual call points or/and a key combination on the keypads or/and extinguish zones to activate the global evacuation condition.
- Walk Test feature: The user may activate a test state on the panel. During the test he manually triggers each one detector and the system once the alarm is detected sounds the sirens for a short period and auto resets. He/she then repeats the triggering process for all detectors to verify the system's good operation.
- LOG (events): Storage of up to 1,000 log events.
- Serial (RS232) connection for programming the system through the "Fighter Serial Programmer" software and the RS-232/485 module (optional).
- Remote supervision, monitoring, operation and programming of the system with FRTCP/IP (optional TCP/IP module) connection and the SmartView software (optional).
- Certified to European directives EN 54-2:1997/A1:2006/AC:1999, EN 54-4:1997/A2:2006/AC:1999 & EN 12094-1:2003 (Extinguishing).
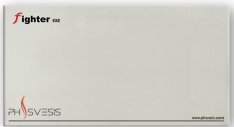
fighter

unique conventional BUS expandable fire alarm & extinguishing system

Fighter Panels

Product	Description	Order Code
Fighter MP	**8 zones conventional fire alarm panel** ▪ Expandable up to 72 zones using expansion modules (8 zones per module) ▪ Output expandability; up to 8 relay modules with 8 relays each ▪ Up to a maximum of 8 keypads units per system.	**PH.PL.FIT.08**
Fighter MPR	**8 zones and 8 relays conventional fire alarm & extinguishing panel** ▪ Expandable up to 72 zones using expansion modules (8 zones per module) ▪ Output expandability; up to 8 relay modules with 8 relays each ▪ Up to a maximum of 8 keypads units per system.	**PH.PL.FIT.R8**

Keypad / Repeater

Product	Description	Order Code
FIGHTER KSDA	**Fighter panel's keypad / repeater** ▪ Menu-driven programming for easy system setup (installer) ▪ 3 LEDs indicate the status of the power supply, alarms and faults of the system ▪ TEST button activates all visual indicators for user check ▪ Dedicated system (zones) reset button ▪ Dedicated Silence button for buzzers and external sirens also indicates active silence conditions ▪ Easy menu navigation with dedicated arrow buttons ▪ Info button gives on screen quick help for system parameters and screen items ▪ Evacuation Command with keys combination (1 + 3 key buttons) ▪ Interconnection via RS-485 BUS system.	**PH.KP.FIS.EN**

Expansion Modules
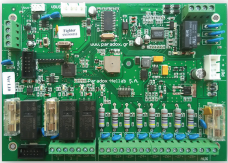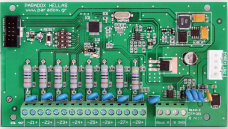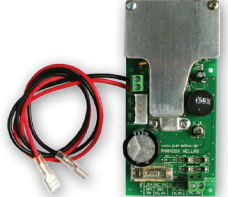
Product	Description	Order Code
Fighter EXZ	**8 zones expansion module without keypad** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Powered from the BUS ▪ CE certified.	**PH.00.Z08.00**
Fighter EXR	**8 relays expansion module without keypad** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Powered from the BUS ▪ CE certified.	**PH.00.0R8.00**
Fighter EKZ	**8 zones expansion module with keypad** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Powered from the BUS ▪ CE certified.	**PH.KP.EXP.08**
Fighter EKR	**8 relays expansion module with keypad** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Powered from the BUS ▪ CE certified.	**PH.KP.0R8.00**

Product	Description	Order Code
Fighter ZPS	**8 zones expansion module with PSU** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Power supply 27.6 VDC, 2A ▪ CE certified.	**PH.00.Z08.PS**
Fighter ZRPS	**8 zones and 8 relays expansion module with PSU** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Power supply 27.6 VDC, 2A ▪ Weight: 7.1 Kg (without the batteries) ▪ CE certified.	**PH.00.ZR8.PS**
Fighter KZPS	**8 zones expansion module with keypad and PSU** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Power supply 27.6 VDC, 2A ▪ CE certified.	**PH.KP.Z08.PS**
Fighter KRPS	**8 relays expansion module with keypad and PSU** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Power supply 27.6 VDC, 2A ▪ CE certified.	**PH.KP.0R8.PS**
Fighter KZRPS	**8 zones and 8 relays expansion panel with keypad and PSU** ▪ Connects to the Fighter panel via 4-wire RS-485 BUS ▪ Module ID via Dip Switches ▪ Power supply 27.6 VDC, 2A ▪ CE certified.	**PH.KP.ZR8.PS**

Each zone input (main panel or expansion modules) supports up to 20 detectors (160 detectors/module max).

Accessories & spare parts

Product	Description	Order Code
FRTCP-IP	**Communication Module TCP/IP - RS232** ▪ FRTCP-IP module connects directly with Fighter panel's main board (LAN-RS232 connector) ▪ FRTCP-IP gives the ability to access and control the Fighter fire alarm panel remotely through the ethernet / internet (TCP/IP) in real time with the use of the specially designed SmartView software ▪ Remote supervision, monitoring, operation and programming of the system with FRTCP/IP connection and the SmartView software ▪ <u>Note:</u> The ethernet RJ45 network cable is not included.	**PH.FI.TCP.IP**
EXP FR8 CONV	**8 Outputs relay board for Fighter EXP** ▪ It includes metal base for mounting inside the panel.	**PH.RE.FIC.MB**
	8 Outputs relay board for Fighter EXP without the metal base.	**PH.RE.FIC.08**
CONV FR8	**Converter board** ▪ It converts output relays of EXP FR8 to dry contacts NO/NC.	**PH.RE.CON.F8**
FIGHTER Keypad	Fighter panel's keypad.	**PH.KP.FIL.GR**

	Product	Description	Order Code
	FIGHTER Main Board	Fighter panel's main board.	**PH.MN.FIT.08**
	EXP Z8	**PCB expansion module with 8 zone inputs** ▪ All inputs are fully supervised and must be properly terminated ▪ Capability for extra Power Supply (FPS-5, transformer and batteries) with fully supervised mains and battery inputs ▪ Each zone input (main panel or expansion modules) supports up to 20 detectors (160 detectors max) ▪ Connection via BUS ▪ Module ID via Dip Switches.	**PH.ZE.FIT.08**
	EXP R8	**PCB expansion module with 8 relays** ▪ All outputs are supervised and must be properly terminated ▪ 24VDC/1A output per relay (fused) ▪ Maximum load depends on rest of system ▪ Capability for extra Power Supply (FPS-5, transformer and batteries) with fully supervised mains and battery inputs ▪ Provides the ability to connect a wide variety of loads (notification appliances, automation modules etc) ▪ Connection via BUS ▪ Module ID via Dip Switches.	**PH.RE.FIT.08**
	Fighter Relay	**PCB expansion module with 8 relays** ▪ EXP R8 expansion module with metal base included.	**PH.RE.FIT.MB**
	FPS-5	**Switching stabilized power supply 27,6 VDC - 2A without transformer (PCB board only)** ▪ When connected to the Fighter main board it provides mains supervision, battery charger, battery health monitor (high internal impedance detection) and short circuit protection for the battery charger ▪ CE certified.	**PH.PF.005.V1**
	FIGHTER UPDATER KIT	Fighter panels firmware updater kit	**PH.FI.KIT.UP**

fighter XT

unique conventional extinguishing system

General Specifications

- Advanced conventional fire alarm & extinguishing panel using Bus technology.
- 1 Extinguishing area with 8 zones
- Up to a maximum of 8 keypads units.
- LCD keypad unit for supervision, monitoring, operation and programming of the system.
- Build-in DTMF communicator supports Ademco C.I.D. format.
- Serial (RS232) connection for programming the system through the "Fighter Serial Programmer" software and the RS-232/485 module (optional).
- Remote supervision, monitoring, operation and programming of the system with TCP/IP connection and the SmartView software (optional).
- Intellizone and Cross-zone feature.
- Walk Test feature.
- Day / Night feature.
- Serial (RS232) connection for programming the system through the "Fighter Serial Programmer" software and the RS-232/485 module (optional).
- Certified to European directives EN 54-2:1997/A1:2006/AC:1999, EN 54-4:1997/A2:2006/AC:1999 & EN12094-1:2003 (Extinguishing).

Technical Specifications

Bus voltage	24VDC typical
Current at 24Vdc per PSU	1.8 A
Main board current draw [Standby / Alarm]	112 mA / 350 mA
Zones Expansion Module current draw [Standby / Alarm]	60mA / 220 mA
Relays Expansion Module current draw [Standby / Alarm]	40mA / 230 mA
Keypads current draw [Standby / Alarm]	25 mA / 110 mA
Auxiliary output	24VDC +/- 10%, 800 mA max, current limited, monitored
Batteries	2x 12V, 7Ah sealed lead acid gel, self regulated
Zone Inputs Voltage	16.3 VDC ±10%, 0,5 V max ripple voltage
Zone Reset Operation	0,5 VDC max voltage, duration 3,1 sec
Max total detector's standby current per zone	15 mA
Signalling devices outputs	24VDC ±10%, 1A max, fused and monitored
Fault relay contacts rating	Dry contacts (NO/NC) 30 VDC, 3 Amps
BUS system	4 wire RS485 bus system
Bus max length	1200m using typical RS485 cables
Bus Max capacitive load	400 nF
Dimensions (HxWxD [mm])	315x425x100

Phone Line Provider — PSTN

Fighter XT

8 zones panel with 8 relay outputs

Central Monitoring Station

FRTCP-IP — RS-232

TCP-IP/RS-232 module

TCP-IP — LAN/WAN

Fighter Serial Programmer

SmartView

Detection 1 (1st zone) | Detection 2 (2nd zone) | HOLD (3rd zone) | Extinguish (4th zone) | Pressure Control Sensor (5th zone) | Release Control Sensor (6th zone) | Extinguish Auxiliary (7th zone) | Manual Mode Switch (8th zone)

Extinguishing panel operational overview

		Time Line →		
		First Level Alarm	**Second Level Alarm**	**Extinguishing Active**
Z1	Detection Zone 1	Activated	Activated	Activated
Z2	Detection Zone 2		Activated	Activated
		Mode 1 & Mode 2 Outputs		
RL1	Siren	Interrupted Sound	Interrupted Sound	Continuous Sound
RL2	Extinguish Command		← T1 →	Active
RL3	Pre-Release		Active	T2 →
RL4	Pressure Damper		Active ← T3	T4 →
		Mode 2 Only Outputs		
RL5	First Alarm	Active		
RL6	Gas Released			Active
RL7	Pressure Damper, INV	Active	Active ← T3	T4 → (0= Inactive)
RL8	Verified Outflow			Active

Fighter XT

unique conventional extinguishing system
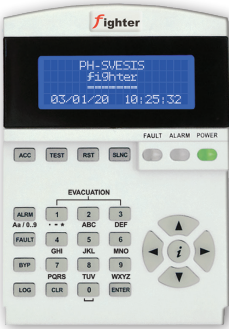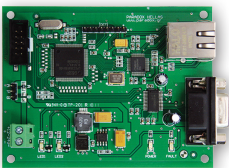
FighterXT Panel

Product	Description	Order Code
Fighter XT	**8 zones and 8 relays conventional fire alarm & extinguishing panel** ▪ 1 Extinguishing area with 8 zones ▪ Up to a maximum of 8 keypads units per system ▪ Built in communicator supporting Contact I.D protocol ▪ Power supply 27.6 VDC, 2A ▪ CE certified.	**PH.PL.FXT.R8**

Keypad / Repeater

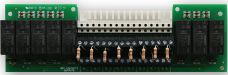| Product	Description	Order Code
FIGHTER KSDA	**Fighter panel's keypad / repeater** ▪ Menu-driven programming for easy system setup (installer) ▪ 3 LEDs indicate the status of the power supply, alarms and faults of the system ▪ TEST button activates all visual indicators for user check ▪ Dedicated system (zones) reset button ▪ Dedicated Silence button for buzzers and external sirens also indicates active silence conditions ▪ Easy menu navigation with dedicated arrow buttons ▪ Info button gives on screen quick help for system parameters and screen items ▪ Evacuation Command with keys combination (1 + 3 key buttons) ▪ Interconnection via RS-485 BUS system.	**PH.KP.FIS.EN**

Accessories & ancillary modules

Product	Description	Order Code
Sequential Extinguishing Activator	**Device used to relay the Extinguishing command from the panel's output to more than one extinguishing generators** ▪ It reduces the current needed from the panel to activate these multiple generators by triggering them in sequence with a programmable delay from one activation to the next one ▪ Open and short circuit on every part of the chain is detected and reported to the panel ▪ Maximum 20 units per panel, other restrictions related to timing and power availability may apply ▪ Weight: 500 gr ▪ CE Certified.	**PH.SE.ACT.RD**
Manual Mode Switch	**2-position keyswitch in a metal enclosure** ▪ When Auto is enabled the panel operates in the normal way ▪ When Manual is enabled the panel does not initiate any Extinguishing procedure unless the START extinguishing button is pressed ▪ The panel indicates "Manual mode" in the main LCD display.	**PH.FI.MMS.00**
FRTCP-IP	**Communication Module TCP/IP - RS232** ▪ FRTCP-IP module connects directly with Fighter panel's main board (LAN-RS232 connector) ▪ FRTCP-IP gives the ability to access and control the Fighter fire alarm panel remotely through the ethernet / internet (TCP/IP) in real time with the use of the specially designed SmartView software ▪ Remote supervision, monitoring, operation and programming of the system with FRTCP/IP connection and the SmartView software ▪ Note: The ethernet RJ45 network cable is not included.	**PH.FI.TCP.IP**

Product	Description	Order Code
EXP FR8 CONV	**8 Outputs relay board for Fighter EXP** ▪ It includes metal base for mounting inside the panel.	**PH.RE.FIC.MB**
	8 Outputs relay board for Fighter EXP without the metal base.	**PH.RE.FIC.08**
CONV FR8	**Converter board** ▪ It converts output relays of EXP FR8 to dry contacts NO/NC.	**PH.RE.CON.F8**
FIGHTER UPDATER KIT	**Fighter panels firmware updater kit**	**PH.FI.KIT.UP**

neon
conventional fire alarm panels

General Specifications

- Conventional Fire alarm panel.
- 2, 4 or 8 zones.
- Active End of Line monitored zones.
- 4 monitored Siren/Relay outputs (EN54-2 par.7.8 certified).
- Constant or ANSI sound output patterns.
- Universal Access Level 2 key (key code access as well).
- Alarm verification with pre-alarm output. Configurable for each zone. 7 delay values (EN54-2 par.7.12 certified).
- Day/Night operation (with external timer).
- Output delays (7 values) (EN54-2 par.7.11 certified).
- Cross zone (dual zone) alarms. Configurable on each zone pair (4 pairs on 8 zone model).
- 24 V DC Auxiliary output.
- 24 V DC output, interruptible during reset (eg. for gas detector reset).
- Remote reset input.
- Bell (class change) input.
- Walk test (individual zone capable) (EN54-2 par.10 certified).
- Repeater expansion port (connection to optional RS485 expansion module).
- Optional repeater with LCD display (menu driven, zone descriptions, etc).
- TCP/IP module expansion port.
- Optional TCP/IP module for connectivity to SmartView software.
- Alarm and Fault/Disablement indicators for each zone.
- Certified to directive CPR 89/106/EEC, EN 54-2: 1997/A1: 2006/AC: 1999 and EN 54-4: 1997/A2: 2006/AC: 1999. Certified to LVD Directive 2006/95/EC and EMC Directive 2004/108/EC.
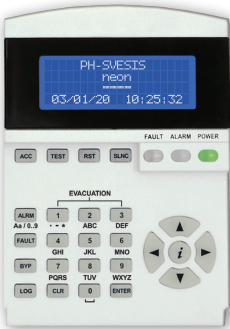
Technical Specifications

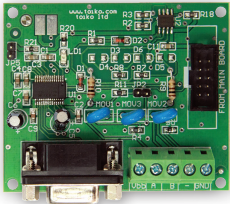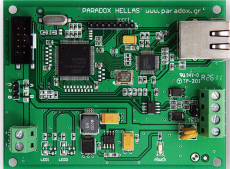|	NEON 2	NEON 4	NEON 8
Number of zones:	2	4	8
Maximum number of detectors per zone:		20	
Notification appliances outputs (e.g. sirens):	2	4	4
Notification appliances current:	4 x 400mA (total maximum current 1Amp)		
Mains Power:	230 V AC / 50Hz		
Zones input voltage (with EOL & AEOL):	16 to 21 V		
Maximum input power:	100 VA max input power (0.5 Amp)		
Battery placement:	2 x 12V 7Ah VRLA batteries will fit in the panel		
Standby Power:	5 VA (25 mA)		
Auxiliary power outputs:	24V DC 1Amp total ('AUX' + 'AUX R')		
Zone termination:	4,7 KOhm 5% 1/2W resistors or 22uF / 25V electrolytic capacitors		
Monitored output termination:	4,7 KOhm resistors 5% 1/2W		
Fire relay output:	Dry contacts NO or NC selectable. 50 V / 1.5 A max (DC or AC)		
Fault relay output:	Dry contacts NO or NC selectable. 50 V / 1.5 A max (DC or AC)		
Environmental:	Temperature: -2 to 45 °C (32 to 120 °F), Humidity: 5 to 95% RH, non condensing		
Panel's dimensions (HxWxD) [mm]:	315 x 425 x 105 mm. In semi flash wall mounting extruding depth: 25mm		
Weight (without the batteries):	2.800gr		

neon
conventional fire alarm panels

NEON Panels

Product	Description	Order Code
NEON 2	2 Zones Fire Alarm Panel	**PH.SV.NEO.N2**
NEON 4	4 Zones Fire Alarm Panel	**PH.SV.NEO.N4**
NEON 8	8 Zones Fire Alarm Panel	**PH.SV.NEO.N8**

Keypad / Repeater

Product	Description	Order Code
NEON KSDA	**NEON panel's keypad / repeater** ▪ LCD remote Keypad/ Repeater ▪ User friendly Alphanumeric keypad/repeater with 80 characters (4x20) blue LCD display ▪ Menu-driven user friendly operation ▪ 3 LEDs indicate the status of the power supply, alarms and faults of the system ▪ TEST button activates all visual indicators for user check ▪ Dedicated system (zones) reset button ▪ Dedicated Silence button for buzzers and external sirens also indicates active silence conditions ▪ Easy user information and system status with clever filtering through 4 buttons ▪ Filtering alarms, faults, bypasses and log events creates easy to comprehend uncluttered display screens ▪ Interconnection via RS-485 BUS system.	**PH.KP.NEO.EN**

Accessories

Product	Description	Order Code
NRS-485	**RS485 Communication Module** ▪ This module gives the NEON panels the ability to connect to the NEON KSDA repeater. Note: The RS-485 cable is not included.	**PH.NE.232.RS**
NRTCP-IP	**Ethernet & RS232 Communication Module** ▪ NEON TCP-IP module connects directly with NEON panel's main board ▪ NEON TCP-IP gives the ability to access and control the NEON fire alarm panel remotely through the ethernet / internet (TCP/IP) in real time with the use of the specially designed SmartView software.	**PH.NE.TCP.IP**

Matrix2000

conventional fire alarm panels

General Specifications

- Fire alarm control panel for small or medium installations.
- Number of zones: 4, 8, 12, 16, 20 or 24. Maximum number of detectors per zone 20.
- Two wire zone circuits (Class B, Style C).
- Outputs expandability up to 24 relays zone outputs.
- Zones Bypass (zone disablements) keys.
- Silicon rubber keypad for Operation and Programming.
- Keyswitch to access Level 2 and System Reset procedure.
- Zone status indication: Alarm, Fault, Bypassed.
- General indications: Power, Alarm, Fault, Silence Sounders / Disable Sounders, Siren Fault / Siren Disable, Disablements, Earth Fault, Relays Outputs Fault (in case of using the relays expansion board).
- Earth Fault indication.
- IntelliZone (Alarm Verification) feature. Similar to Day/Night mode.
- Cross-zone feature (up to 4 cross-zone pairs). Only for the mainboard's zones.
- WalkTest installation testing feature.
- Weekly reminder for system test.
- Remote connectivity through ethernet expansion board (optional extra).
- Supervision, monitoring and operation through the SmartView software.
- Certified to directive CPR 89/106/EEC, EN 54-2: 1997/A1: 2006/AC: 1999 and EN 54-4: 1997/A2: 2006/AC: 1999. Certified to LVD Directive 2006/95/EC and EMC Directive 2004/108/EC.
- Implements EN54-2 "Output to fire alarm device"
- Implements EN54-2 "Dependencies on more than one alarm signal"
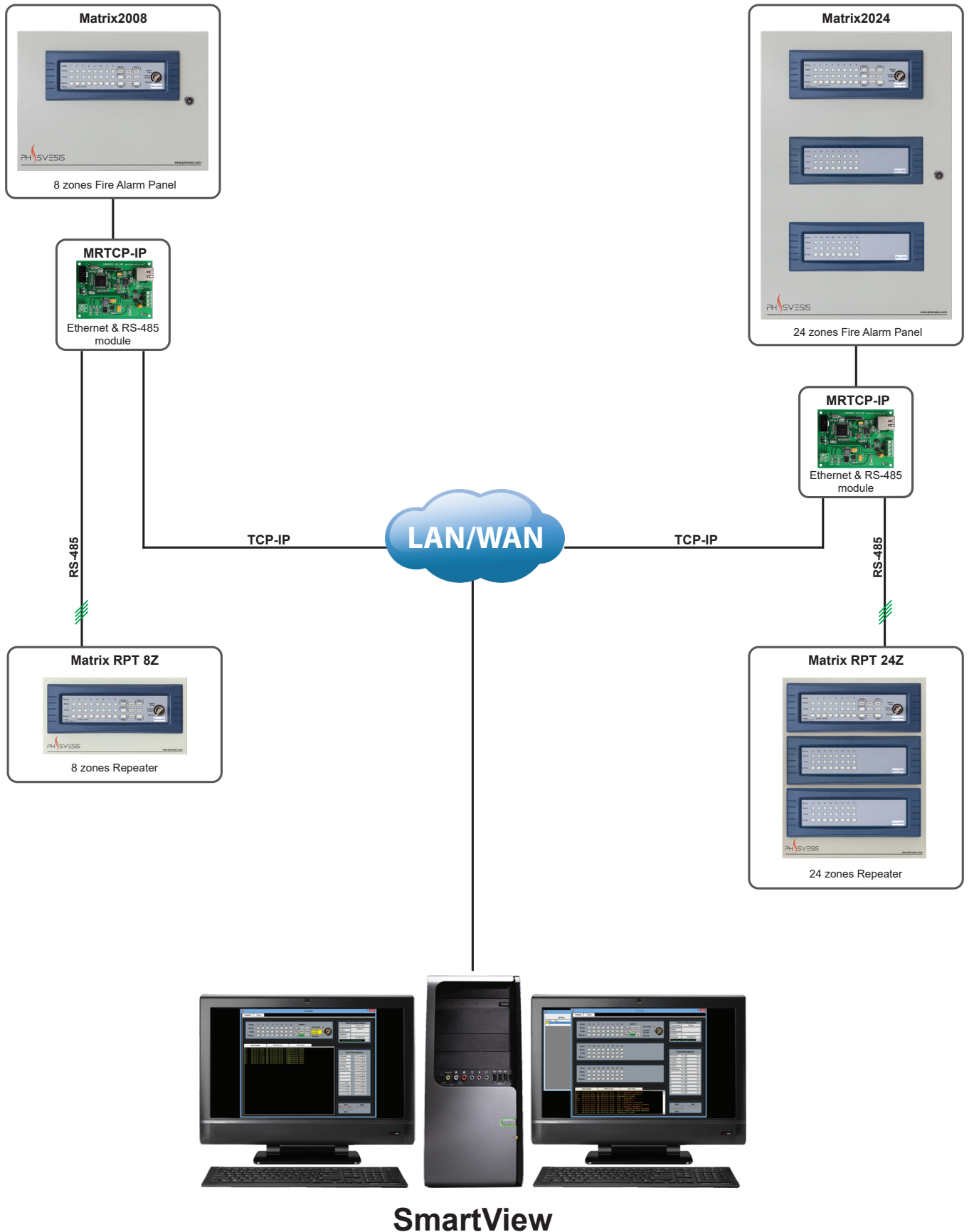- Implements EN54-2 "Type B dependency"

Technical Specifications

Mains power:	220V AC 50Hz
Accessories operational voltage:	24V DC
Backup power:	2x 12V / 7Ah sealed lead acid gel batteries
Battery health monitoring (periodic load test):	Every 90 seconds
Earth faults detection and indication:	Front panel LED & buzzer
Zone termination resistors:	4,7K Ohms / 0.5W
Relay outputs termination resistors:	4,7K Ohms / 0.5W
Supervised siren output:	24VDC / 1A output
Supervised, fused relay outputs on the relay expansion modules:	1.5A fuse
Panel's current consumption at 24VDC (standby):	4 zones: 55mA, 8 zones: 70mA, 12 zones: 95mA, 16 zones: 110mA, 20 zones: 135mA, 24 zones: 150mA
Panel's dimensions (HxWxD) [mm]:	4 - 8 zones: 315 x 425 x 90 12 - 16 zones: 480 x 425 x 90 20 - 24 zones: 645 x 425 x 90
Generic trouble output (on main unit) non monitored:	Dry relay contacts NO - C - NC.
Operating Temperature:	-2°C to 45°C (32°F to 120°F)
Operating Humidity:	5% to 95% RH, noncondensing

Matri*x*2000
conventional fire alarm panels

Matrix2008

8 zones Fire Alarm Panel

MRTCP-IP

Ethernet & RS-485 module

RS-485

TCP-IP

LAN/WAN

Matrix RPT 8Z

8 zones Repeater

Matrix2024

24 zones Fire Alarm Panel

MRTCP-IP

Ethernet & RS-485 module

TCP-IP

RS-485

Matrix RPT 24Z

24 zones Repeater

SmartView

Matrix2000
conventional fire alarm panels

MATRIX2000 Panels

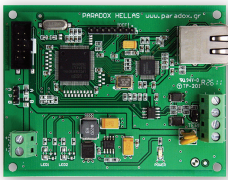| Product	Description	Order Code
MATRIX2004R00TO	**4 Zones Fire Alarm Panel** ▪ Weight: 5.7Kg.	**PH.MA.422.CP**
MATRIX2004R04TO	**4 Zones Fire Alarm Panel with 4 active monitored relay outputs** (1xMER-4) corresponding to zones 1 to 4 ▪ Weight: 6.8Kg	**PH.MR.422.CP**
MATRIX2008R00TO	**8 Zones Fire Alarm Panel** ▪ Weight: 5.9Kg	**PH.MA.822.CP**
MATRIX2008R08TO	**8 Zones Fire Alarm Panel with 8 active monitored relay outputs** (1xMER-8) corresponding to zones 1 to 8 ▪ Weight: 7.1Kg	**PH.MR.822.CP**
MATRIX2012R00TO	**12 Zones Fire Alarm Panel**	**PH.MA.012.CP**
MATRIX2012R04TO	**12 Zones Fire Alarm Panel with 4 active monitored relay outputs** (1xMER-4) corresponding to zones 1 to 4.	**PH.04.012.CP**
MATRIX2012R08TO	**12 Zones Fire Alarm Panel with 8 active monitored relay outputs** (1xMER-8) corresponding to zones 5 to 12.	**PH.08.012.CP**
MATRIX2012R12TO	**12 Zones Fire Alarm Panel with 12 active monitored relay outputs** (1xMER-4 & 1xMER-8) corresponding to zones 1 to 12.	**PH.12.012.CP**
MATRIX2016R00TO	**16 Zones Fire Alarm Panel**	**PH.MA.016.CP**
MATRIX2016R08TO	**16 Zones Fire Alarm Panel with 8 active monitored relay outputs** (1xMER-8) corresponding to zones 1 to 8.	**PH.08.016.CP**
MATRIX2016R16TO	**16 Zones Fire Alarm Panel with 16 active monitored relay outputs** (2xMER-8) corresponding to zones 1 to 16.	**PH.16.016.CP**
MATRIX2020R00TO	**20 Zones Fire Alarm Panel**	**PH.MA.020.CP**
MATRIX2020R04TO	**20 Zones Fire Alarm Panel with 4 active monitored relay outputs** (1xMER-4) corresponding to zones 1 to 4.	**PH.04.020.CP**
MATRIX2020R08TO	**20 Zones Fire Alarm Panel with 8 active monitored relay outputs** (1xMER-8) corresponding to zones 5 to 12.	**PH.08.020.CP**
MATRIX2020R12TO	**20 Zones Fire Alarm Panel with 12 active monitored relay outputs** (1xMER-4 & 1xMER-8) corresponding to zones 1 to 12.	**PH.12.020.CP**
MATRIX2020R16TO	**20 Zones Fire Alarm Panel with 16 active monitored relay outputs** (2xMER-8) corresponding to zones 5 to 20.	**PH.16.020.CP**
MATRIX2020R20TO	**20 Zones Fire Alarm Panel with 20 active monitored relay outputs** (1xMER-4 & 2xMER-8) corresponding to zones 1 to 20.	**PH.20.020.CP**

Matrix2000
conventional fire alarm panels
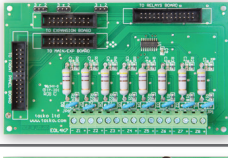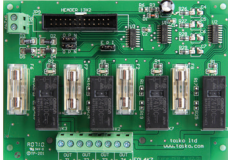
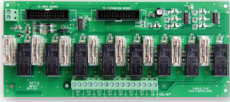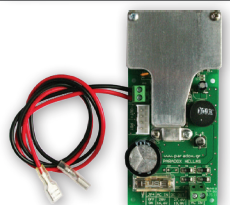| Product	Description	Order Code
MATRIX2024R00TO	24 Zones Fire Alarm Panel	PH.MA.024.CP
MATRIX2024R08TO	24 Zones Fire Alarm Panel with 8 active monitored relay outputs (1xMER-8) corresponding to zones 1 to 8.	PH.08.024.CP
MATRIX2024R16TO	24 Zones Fire Alarm Panel with 16 active monitored relay outputs (2xMER-8) corresponding to zones 1 to 16.	PH.16.024.CP
MATRIX2024R24TO	24 Zones Fire Alarm Panel with 24 active monitored relay outputs (3xMER-8) corresponding to zones 1 to 24.	PH.24.024.CP

Accessories & spare parts

| Product	Description	Order Code
MRTCP/IP	Ethernet & RS485 Communication Module ▪ Connects directly to the main board of the Matrix 2000 panel ▪ Provides full access and control of the panel either locally via RS485 serial connection to repeaters or via internet (TCP/IP) to any PC running the specially designed software SmartView in real time ▪ Connecting the MRTCP/IP module reduces the maximum number of repeaters that can be connected to the panel Matrix2000 from 7 to 6 ▪ The programming of communication parameters of the module is done through a specially designed software named "Matrix Network Utility" which can be found on our website www.phsvesis.gr ▪ Note: The ethernet RJ45 network cable is not included.	PH.RB.TCP.IP
Dual Siren Output Module	Extension board for Matrix2000 panels ▪ Provides 2 x Siren outputs and 1 x General Alarm Dry Contact Output NO/NC ▪ Applicable to 8, 16 and 24 zone panels using MAIN-8 board.	PH.SR.EXP.8Z
	Extension board for Matrix2000 panels ▪ Provides 2 x Siren outputs and 1 x General Alarm Dry Contact Output NO/NC ▪ Applicable to 4, 12 and 20 zone panels using MAIN-4 board.	PH.SR.EXP.4Z
MAIN-4	4-zones main board for MATRIX2004, MATRIX2012 & MATRIX2020 panel series.	PH.MN.004.V3
MAIN-8	8-zones main board for MATRIX2008, MATRIX2016 & MATRIX2024 panel series.	PH.MN.008.V3
MEZ-8	8 zones expansion board.	PH.MZ.008.00
MER-4	4 zone outputs expansion board.	PH.MR.104.V2

Matri*x*2000
conventional fire alarm panels

	Product	Description	Order Code
	MER-8	8 zone outputs expansion board.	**PH.MR.108.V2**
	MKP-4	4 zones keypad with keyswitch.	**PH.MK.004.V2**
	MKP-8K	8 zones keypad with keyswitch.	**PH.MK.008.V2**
	MKP-8	8 zones expansion keypad without keyswitch (Need to order zone numbers 9-16 and 17-24).	**PH.MK.108.V2**
	FPS-5	**Switching stabilized power supply 27,6 VDC - 2A without transformer (PCB board only)** ▪ When connected to the Fighter main board it provides mains supervision, battery charger, battery health monitor (high internal impedance detection) and short circuit protection for the battery charger ▪ CE certified.	**PH.PF.005.V1**

SmartView

Unified platform for programming and remote monitoring of Fire Alarm panels

Matrix2000

Neon

Fighter
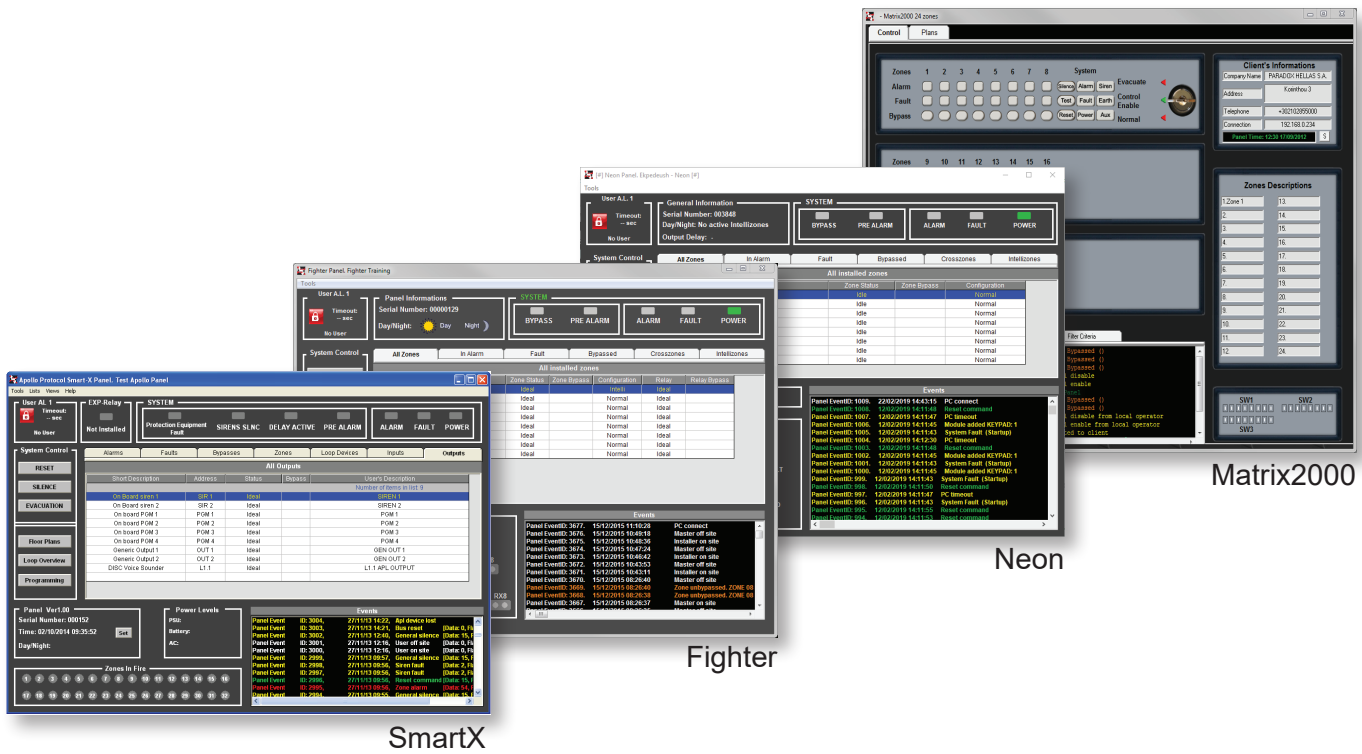
SmartX

SmartView is a unique software application designed to connect to ALL our panels. This way the learning curve for the installing engineers is minimized to the use of a single app. The software supports different languages and it can integrate new ones with the use of a single translation file (provided from our company).

SmarView keeps constantly checking the communication health between itself and any connected panel, informing the owner or installer in case of any discrepancy or problem.

SmartView provides both the installing engineer and the end user/owner of a Fire Alarm system a powerful tool that provides:

- Connectivity over any TCP/IP network, either a LAN or a remote connection to any PH Svesis' panel including Neon, Matrix2000, Fighter and SmartX product lines

- Full remote monitoring of panels e.g. alarm, fault, bypass etc

- Access to remote programming for the installing engineer e.g. zone names and descriptions, cross zoning delays, activation grouping etc

- Access to remote operations for the user e.g. silence, reset and/or evacuation

- Graphical loop overview of connected devices (SmartX analogue addressable panels only)

- Interactive Floor Plans giving detailed and accurate information of what's happening in the protected area

- Integration with various CCTV devices providing LIVE video feed, all within the GUI

- 20 simultaneous and independent LIVE fully operating connections to as many panels in different windows from one PC/workstation

SIR-ZFV

outdoor, tampering protected & battery back-up piezo siren

General Specifications

Siren SIR/ZFV is designed and manufactured to contain both maximum function abilities and security. The housing, aesthetically pleasant, with built in FLASH and large exterior space for the company "logo" is made of POLYCAR-BONATE plastic with interior metal cover made of galvanized steel sheets. Ensure maximum protection endurance to all weather conditions.

- Complete initial connection can be made before panel power up. It's put in STANDBY mode only when the + or -SSP command is given.
- Built-in FLASH.
- Protection of the siren from short circuit in the electric lamp of the FLASH.
- Protection switch TAMPER from opening the cover or removing the siren the from the wall.
- Maximum alarm duration when shut down the SSP.
- UV protected, self extinguishing POLYCARBONATE plastic box.

Technical Specifications

Operating Voltage:	12 VDC or 24 VDC
Standby current drain:	20 mA
Alarm current drain:	115 mA
Acoustic pressure:	110dB@1m
Operating frequency:	1600-2400 Hz
Alarm duration:	3, 5, 10min or indefinite
Tamper switch contact:	1A / 12V
Flash:	High bright LED
Dimensions (HxWxD) [mm]:	275 x 250 x 90

Product	Description	Order Code
SIR/ZFV	110db@1m fire alarm outdoor piezo siren with flash and battery back-up.	PH.SR.ZFV.00

Conventional Devices

Sensors

Product	Description	Order Code
PHS102DS	**Optical Smoke detector** ▪ High immunity against unwanted alarms ▪ Magnet-initiated alarm test function ▪ Base included ▪ Certified to EN54-7, CE, UL 268.	**PH.SD.102.00**
PHS202DH	**Heat detector** ▪ Ideal for both fast-flaming and slow smouldering fires ▪ High immunity against unwanted alarms ▪ Base included ▪ Certified to EN54-5, EN54-7, CE, UL 268,. UL 521.	**PH.HD.202.00**
DCD-AE3(WHT)	**Combined Heat Detector 60 degree (White case)** ▪ Electronic linear heat detection ▪ Remote Indicator output ▪ Wide voltage range (9.5 ~ 30Vdc) ▪ Twin fire LED's allow 360° viewing ▪ LPCB & VdS Approved.	**HO.AE.DCD.30**
DCD-CE3(WHT)	**Combined Heat Detector 90 degree (White case)** ▪ Electronic linear heat detection ▪ Remote Indicator output ▪ Wide voltage range (9.5 ~ 30Vdc) ▪ Twin fire LED's allow 360° viewing ▪ LPCB & VdS Approved.	**HO.CE.DCD.30**
DFJ-AE3(WHT)	**Fixed Temperature Heat Detector 60 Degree (White case)** ▪ Electronic linear heat detection ▪ Remote Indicator output ▪ Wide voltage range (9.5 ~ 30Vdc) ▪ Twin fire LED's allow 360° viewing ▪ Fixed Temperature Detector ▪ LPCB & VdS Approved.	**HO.60.DFJ.AE**
DFJ-CE3(WHT)	**Fixed Temperature Heat Detector 90 Degree (White case)** ▪ Electronic linear heat detection ▪ Remote Indicator output ▪ Wide voltage range (9.5 ~ 30Vdc) ▪ Twin fire LED's allow 360° viewing ▪ Fixed Temperature Detector ▪ LPCB & VdS Approved.	**HO.CE.DFJ.30**
SOC-E3N(WHT)	**Photoelectric Smoke Detector (White case)** ▪ Removable, High Performance chamber ▪ Automatic Sensitivity Window Verification (ASWV) – Drift Compensation Technology ▪ Wide voltage range (9.5 ~ 30 V dc) ▪ Single fire LED - 360° viewing ▪ Approved by LPCB.	**HO.00.SOC.E3**
YBN-R/6(WHT)	**Conventional Mounting Base (White)** ▪ Integral remote indicator output ▪ Low Profile, only 8 mm ▪ Quick connections via square cable clamps ▪ Accepts 2.5 mm² cables. ▪ Bayonet slot, low insertion force for detectors.	**HO.BA.YBN.R6**
YBN-R/6SK(WHT)	**Conventional Schottky Diode Base (White)** ▪ Integral remote indicator output ▪ Low Profile, only 8 mm ▪ Quick connections via square cable clamps ▪ Accepts 2.5 mm² cables. ▪ Bayonet slot, low insertion force for detectors.	**HO.SK.YBN.R6**

Audio / Visual

Product	Description	Order Code
PH-84	**Indoor siren with flash / 120dB** ▪ ABS Housing ▪ Sweep siren sound ▪ Used for fire and burglary alarm systems.	**PH.LD.084.FS**
PH-81	**Indoor siren with flash / 88dB** ▪ ABS Housing ▪ 150 flashes/minute ▪ Harmonic bell sound or sweep tone or siren sound ▪ Used for fire and burglary alarm systems.	**PH.LD.081.FS**
MBF-6EV	**6" Motorized Bell** ▪ Low Profile ▪ Low Current Consumption ▪ Fully Supressed And Polarised ▪ 95 dB (A) at 1 meter ▪ Simple Installation With Multi Fixing Base Plate.	**HO.BL.MBF.6E**

Conventional Devices

Manual Call Points

	Product	Description	Order Code
	PM-20	Manual Call Point (Red).	DF.FP.190.00
	PM-20Y	Manual Call Point (Yellow).	DF.FP.190.YL

Ancillary modules

	Product	Description	Order Code
	MRB-01	Fire beams resetting board.	PH.AU.RES.MF
	MED-01	Extinguishing delay board.	PH.EX.DEL.MO

Security Systems

SIR / PL - V

outdoor, tampering protected & battery back-up siren series

EN50131-4 certified — Security Grade 3 Environmental Class IV

General Specifications

The SIR/PL and SIR/V siren series are designed and manufactured to contain both maximum function abilities and security.

The housing aesthetically pleasant, with built in FLASH and large exterior room for the company "logo" is made of POLYCARBONATE plastic. Interior metal cover made of galvanized steel sheets. The robust design and excellent material ensure maximum protection endurance to all weather conditions.

SIR/PLL & SIR/V are certified to EN50131-4 Standard, Security Grade 3, Environmental Class IV.

- Complete initial connection can be made before panel power up. It's put in STANDBY mode only when the + or -SSP command is given.
- The siren is activated when the alarm panel's voltage drops below 9.5 VDC.
- High Bright LED Flash.
- Protection of the siren from short circuit in the Flash.
- Protection switch TAMPER from opening the cover or removing the siren from the wall.
- Maximum alarm duration when the SSP is off.
- UV protected, self extinguishing Polycarbonate plastic box.
- Available in white and silver color.

Technical Specifications

Operating Voltage	11-14 VDC
Standby current drain	12mA ±5%
Alarm current drain	1.6A ±5%
Supported Battery Type	12V 2.3Ah / 12V 7Ah (SIR/PL), 12V 2.3Ah (SIR/V)
Acoustic Pressure	110dB ±5%@1m
Type of acoustic output	Acoustic output is modulated tone
Operating Frequency (Audio)	1600 - 2400 Hz
Alarm Duration (Factory setting)	1. From 4 to 5 min 2. From 5 to 6 min 3. From 8 to 10 min
Dimensions (HxWxD) [mm]	275 x 250 x 90
Max. Tamper Switch Ratings	1A / 30V
Visual Alarm Indicator	High Bright LED
SSP Voltage	± 12V
IP Rating (Ingress Protection Rating)	IPX4
IK Rating (Impact Protection Rating)	IK08
Dimensions (HxWxD) [mm]	275x250x90
Weight	2.7Kgr. (SIR/PLL), 2.4Kgr. (SIR/PLSL), 2.52Kgr. (SIR/V), 2.07Kgr. (SIR/VS)

SIR / PL - V
outdoor, tampering protected & battery back-up siren series

Product	Description	Order Code
SIR/PLL	**Outdoor siren with flash and battery back-up** ▪ Can fit 7 or 2,3Ah battery ▪ Available in white & silver color ▪ FLASH in white, orange or blue color ▪ EN50131-4 certified ▪ Security Grade 3, Environmental Class IV.	**PH.SR.PLL.00**
SIR/PLSL	**Outdoor siren with flash and battery back-up** ▪ Can fit 7 or 2,3Ah battery ▪ Available in white & silver color ▪ FLASH in white, orange or blue color ▪ CE certified.	**PH.SR.PLS.00**
SIR/V	**Outdoor siren with flash and battery back-up** ▪ Can fit 2,3Ah battery ▪ Available in white & silver color ▪ FLASH in red color ▪ EN50131-4 certified. Security Grade 3, Environmental Class IV.	**PH.SR.PLV.0W**
SIR/VS	**Outdoor siren with flash and battery back-up** ▪ Can fit 2,3Ah battery ▪ Available in white & silver color ▪ FLASH in red color ▪ CE certified.	**PH.SR.PSV.0W**

SIRION
IP communication module
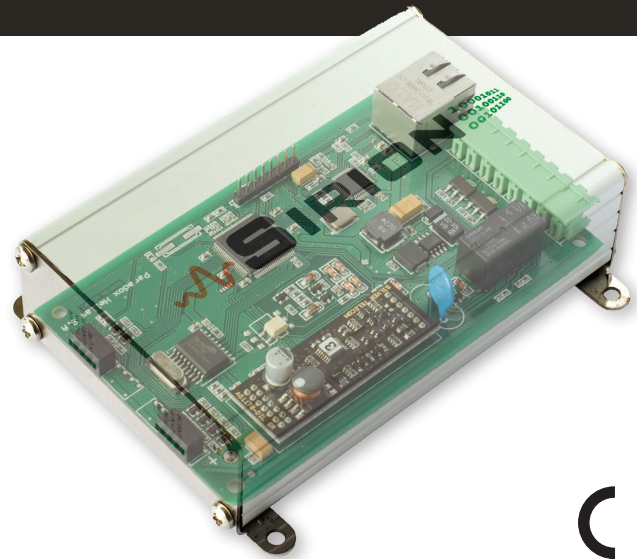
General Specifications

SIRION IP Communication Module provides:
- Support of burglar alarm panels in installations with VoIP fixed telephony services.
- Ability of constant communication between the panel and the Central Monitoring Station (DSL connection required) with no extra charges for the end user (PSTN networks charges are dependent on the call time).
- Provides an upgrade path of existing older systems to modern communication methods (with no need for replacing existing equipment).

SIRION connects easily to the alarm panel (on TIP / RING output). Plug & Play; all basic programming is included in HTML pages inside SIRION. Easily connects to other backup systems (e.g. artion GSM unit). Compatible with ALL burglar alarm panels regardless of manufacturer or model.
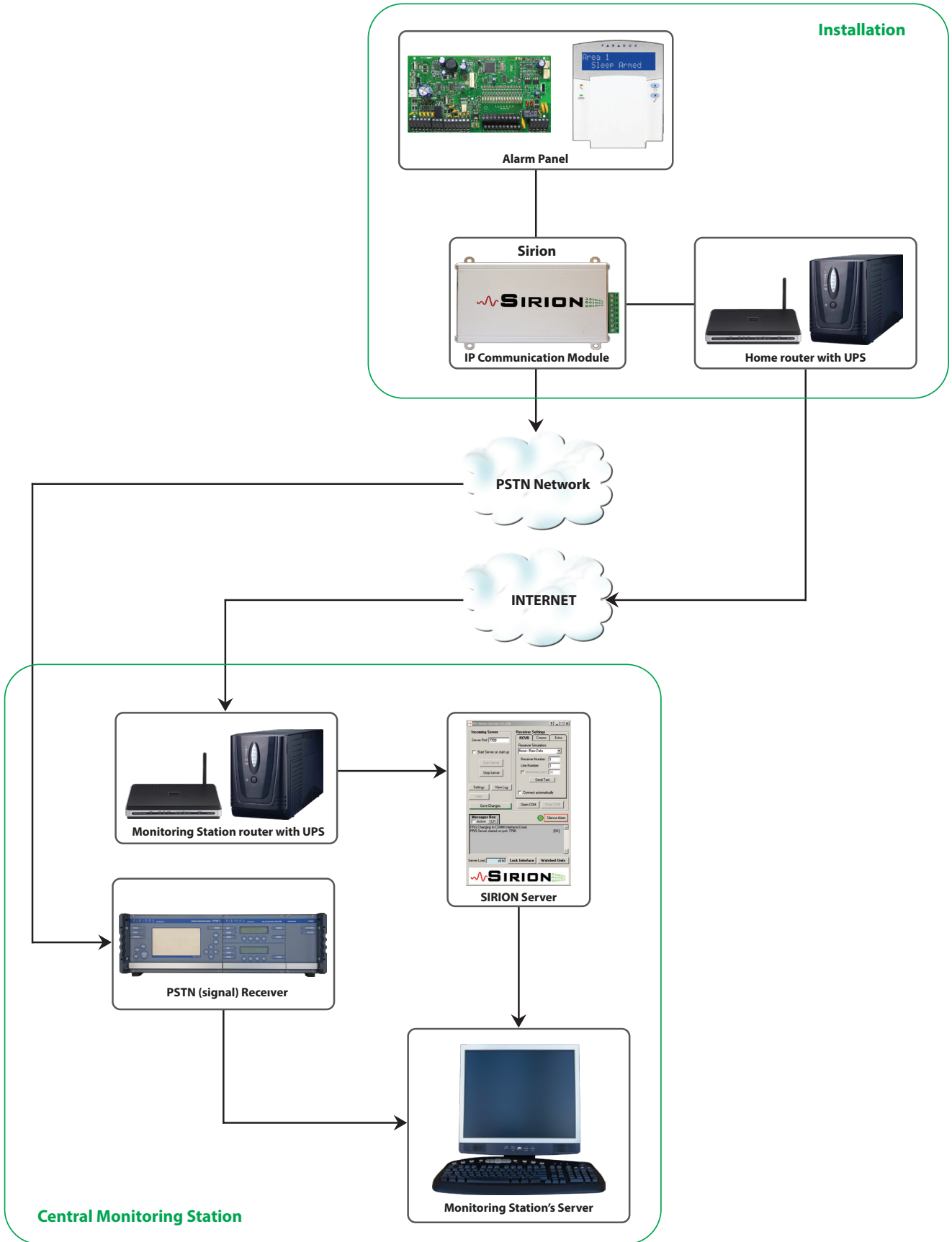
Also includes:
- 4 different operational modes.
- Activate / Deactivate 2 onboard PGMs through web browser (e.g. Internet Explorer).
- LED indicators for the state of PGMs, power and heartbeat (good working status) of the module.
- Very low network bandwidth consumption.
- Use of encryption (AES-128) for secure data communication.

Technical Specifications

Operating Voltage:	12 VDC
Current consumption:	200mA max
2 PGM (open collector, active low)	
Conventional telephony line (POTS) output to alarm panel	
PSTN input	
8 LED indicators for SIRION's status and condition	
RJ45 Ethernet connector	
Serial connection for programming and expansion features	
Detachable connector block for easy installation	

Sirion

IP communication module

Alarm Panel

Sirion

IP Communication Module

Home router with UPS

PSTN Network

INTERNET

Monitoring Station router with UPS

SIRION Server

PSTN (signal) Receıver

Monitoring Station's Server
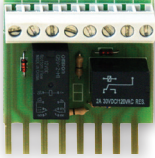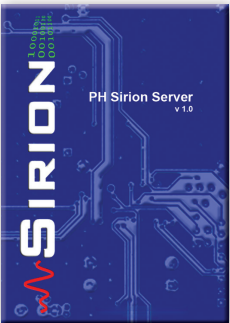
Central Monitoring Station

Sirion

IP communication module

Product	Description	Order Code
SIRION	**IP communication module** ▪ Universal module for IP communication and event reporting to a central monitoring station compatible with all burglar alarm panels using Contact ID format ▪ CE CErtified.	**PH.IP.SIR.02**
PSTN isolator module	It releases the telephone line, isolating the phones to communicate with the central station.	**PH.IP.SIR.03**
Sirion Server Software	Sirion server is a dedicated software that bridges TCP/IP communications from sirion with monitoring station's receiving equipment. It receives event data originating either form the alarm panel and/or the sirion unit(s), decodes them and translates them to the format expected by the rest of the monitoring system by emulating a range of popular PSTN event receivers. It also serves as a sirion units presence and connectivity watchdog, reducing from existing software from the overhead of continues and frequent monitoring. ▪ Server software for reception of alarm and periodic tests events. ▪ Compatible with existing software by simulating widely spread protocols (MCDI Exprecium, Ademco 685, Surgard SLR, Raw data. ▪ Connectivity with monitoring system through physical serial port, emulated serial port, TCP/IP or file system sharing ▪ High security encryption and authentication protocol ▪ Unit presence and connectivity watchdog with programmable per unit parameters Fully logged operation (incoming, system and user events).	

Emergency Luminaires

exidus

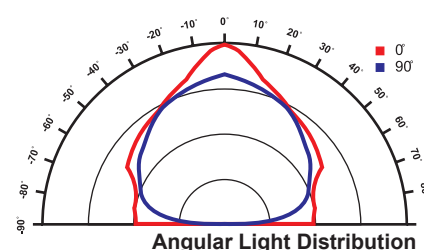## Self-testing smart luminaires

EN27 EVPÜ®
00115/101/1/2017

General Specifications

- Indoor EXIT sign for ceiling or wall mounting.
- Control and programming button.
- 3 x status LEDs and reset button.
- Built-in self-test feature.
- Easy identification of Faults (battery, lighting elements).
- Slim design.
- Fast and easy installation.
- Five (5) luminance levels for each operating mode.
- This EXIT sign comes in 2 variations for areas up to 20 meters (exidus 1) of visibility or up to 30 meters (exidus 2) of visibility.
- ENEC approved. Certified to EN60598.
- The EXIDUS emergency lighting can be provided with left, right or down pointing arrows.

Technical Specifications

Power Supply:	230VAC / 50Hz
Max. Power Consumption:	Less than 5VA
Light Source:	12 LED
Battery:	3.6V 1.0Ah NiCd
Emergency Operation Time:	From 150min to 240min depending on luminance setting
Luminance setting:	5 steps (20, 40, 60, 80 & 100%)
Light source intensity (230V):	100lm
Mounting:	Wall / ceiling
Switch over Voltage:	Between 150 ~ 190V
IP rating:	IP20
Isolation Category:	Double isolation
Environmental:	Temperature: +5 to 45 °C, Humidity: 5 to 95% RH, non condensating
Indication Area Dimensions [WxHxD]:	314x150x6 mm (exidus1), 314x100x6 mm (exidus2)
Dimensions [WxHxD]:	Main body: 320x64x27mm
Guarantee:	3 years (1 year for the battery)

Product	Description	Order Code
Exidus 1	Up to 20m viewing distance ▪ Left arrow.	**PH.LE.EXD.10**
	Up to 20m viewing distance ▪ Right arrow.	**PH.RI.EXD.10**
	Up to 20m viewing distance ▪ Down arrow.	**PH.DN.EXD.10**
Exidus 2	Up to 30m viewing distance ▪ Left arrow.	**PH.LE.EXD.14**
	Up to 30m viewing distance ▪ Right arrow.	**PH.RI.EXD.14**
	Up to 30m viewing distance ▪ Down arrow.	**PH.DN.EXD.14**

Angular Light Distribution

elix

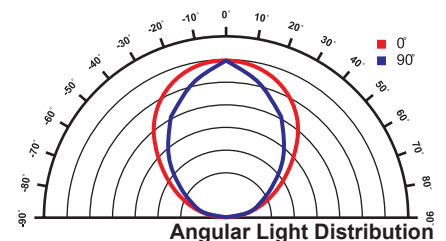## Self-testing smart luminaire

EN27 | EVPÜ | 00114/101/1/2017

General Specifications

- Indoor luminaire for wall mounting.
- Control and programming button.
- 3 x status LEDs and reset button.
- Built-in self-test feature.
- Can be used for Emergency lighting (non-maintained) and also for Ambient lighting (maintained).
- Easy identification of Faults (battery, lighting elements).
- Slim design (only 27mm depth).
- Easy installation and easy battery replacement.
- Five (5) luminance levels for each operating mode.
- ENEC approved. Certified to EN60598.
- Left, right and down pointing arrow stickers are included.

Technical Specifications

Power Supply:	230VAC/50Hz
Max. Power Consumption:	Less than 5VA
Light Source:	12 LED
Battery:	3.6V 1.0Ah NiCd
Emergency Operation Time:	From 150 min to 240 min depending on luminance setting
Luminance setting:	5 steps (20, 40, 60, 80 & 100%)
Light source intensity (230V):	100lm
Mounting:	Wall
Switch over Voltage:	Between 150 ~ 190V
IP rating:	IP20
Isolation Category:	Double isolation
Environmental:	Temperature: +5 to 45 °C Humidity: 5 to 95% RH, non condensating
Indication Area Dimensions [WxHxD]:	228x75 mm
Dimensions [WxHxD]:	260x125x33.5 mm
Guarantee:	3 years (1 year for the battery)

Product	Description	Order Code
Elix	Self-testing smart luminaire ▪ White color.	PH.EL.ELX.WT

Angular Light Distribution

43

arco
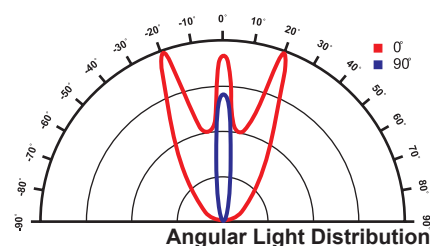## Self-testing smart luminaire

EN27 EVPÜ ®
00122/101/1/2017

General Specifications

- Indoor luminaire for wall or ceiling mounting.
- Fancy design that blends in effortlessly with modern spaces.
- Unique design with 3 distinct light elements arranged in an arc.
- Built-in self-test feature.
- Can be used for Emergency lighting (non-maintained) and also for Ambient lighting (maintained).
- Easy identification of Faults (battery, lighting elements).
- Easy installation and easy battery replacement.
- Five (5) luminance levels for each operating mode.
- ENEC approved. Certified to EN60598.

Technical Specifications

Power Supply:	230VAC/50Hz
Max. Power Consumption:	Less than 5VA
Light Source:	12 LED
Battery:	3.6V 1.0Ah NiCd
Emergency Operation Time:	From 180min to 240min depending on luminance setting
Luminance setting:	5 steps (20, 40, 60, 80 & 100%)
Light source intensity (230V):	100lm
Mounting:	Wall/ceiling
Switch over Voltage:	Between 150 ~ 190V
IP rating:	IP20
Isolation Category:	Double isolation
Environmental:	Temperature: +5 to 45 °C Humidity: 5 to 95% RH, non condensating
Dimensions [WxHxD]:	225x100x47 mm
Guarantee:	3 years (1 year for the battery)

Product	Description	Order Code
Arco	Self-testing smart luminaire ▪ White color.	**PH.EL.ARC.WT**

■ 0°
■ 90°

Angular Light Distribution

PHSVESIS

Fire Alarm & Security Systems