# RINA

# TYPE APPROVAL CERTIFICATE
## No. **ELE219123XG**

**This is to certify** that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

| | |
|---|---|
| *Description* | **PUBLIC ADDRESS AND GENERAL ALARM SYSTEM** |
| *Type* | **SPA-V2  PA and GA SYSTEM** |
| *Applicant* | **ZENITEL NORWAY AS**<br>**SANDAKERVEIEN 24C**<br>**N-0403 OSLO**<br>**NORWAY** |
| *Manufacturer* | **ZENITEL NORWAY AS** |
| *Place of manufacture* | **SANDAKERVEIEN 24C**<br>**N-0403 OSLO**<br>**NORWAY** |
| *Reference standards* | **RINA Rules for Classification of ships, Part C Machinery systems and fire protection, Ch.3, Sect.6, Table 1; // Resolution A.1021 (26) - Code on Alert and Indicators; MSC. 48(66) LSA Code; MSC/Circ. 808; IACS E10: Corr.1 July 2003** |

*Issued in* **HAMBURG** on **November 9, 2023**. *This Certificate is valid until* **November 8, 2028**

RINA Services S.p.A.
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This certificate consists of this page and 1 enclosure

## Product Description:

The SPA-V2 system can be configured in different ways. The following variant are possible:

- SPA2-xx-P;     only PA system (minimum one approved amplifier)
- SPA2xx-GD;   Integrated PA/GA system for standard vessels (minimum two approved amplifier)
- SPA2-xx-GP;   Integrated PA/GA system for passenger vessels (minimum two approved amplifier divided in two different racks)

## Power Supply:

- 230 V AC, 50-60 Hz, max. 2A per 100 Watt amplifier.
- 24 V DC Emergency power, max. 8 a per 100 Watt amplifier

## RACKS

| ID | Description |
|---|---|
| SPA-120-V2 | 12HU rack with 1x SPA-TERM-V2 & 1x VPA-120 |
| SPA-240-V2 | 12HU rack with 1x SPA-TERM-V2 & 1x VPA-240 |
| SPA-400-V2 | 12HU rack with 1x SPA-TERM-V2 & 1x VPA-400 |
| SPA-BASIC-12-V2 | 12 HU rack for one amplfieir with SPA-TERM-V2, SPA-EE3-V2, SPA-AL-REL-V2 SPA-CHIME-V2, SPA-UPS |
| SPA-BASIC-16-V2 | 16 HU rack for two amplfieir with SPA-TERM-V2, SPA-MUL-V2, SPA-EE3D-V2, SPA-AL-REL-V2 SPA-CHIME-V2, SPA-UPS |

## AMPLIFIERS

| ID | Description |
|---|---|
| VPA-120 | Pastrong 120W @ 100V audio |
| VPA-240 | Pastrong 240W @ 100V audio |
| VPA-400 | Pastrong 400W @ 100V audio |

## VOLUME CONTROL & PROGRAM SELECTOR

| ID | Description |
|---|---|
| VCOR-15 | Volume controller w/24VDC override, 15W |
| VCOR-15F | Volume controller w/24VDC override, fail-safe, 15W |
| VCOR-60 | Volume controller w/24VDC override, 60W |
| VCOR-60F | Volume controller w/24VDC override, fail-safe, 60W |
| VM-15RD | Volume control 15W dual |
| VM-50RD | Volume control 50W dual |
| VM-15RDF | Volume control 15W fail-safe dual |
| VM-50RDF | Volume control 50W fail-safe dual |
| SPA-PROG4-RDF | Entertainment selector for 4 external 100V sources with 100V PA and override input fail-safe dual |
| SPA-PROG2 | Control panel for SPA-ENTP2X2I dual |
| ENT-4F | Entertainment panel  for 4 external 100V sources override and 100V PA audio |
| ENT-2D | Entertainment panel for 2 programs 100V with override and seperate speaker for B loop |

## PANELS & ACCESSORIES

| ID | Description |
|---|---|
| SPA-M1-V2 | All-call microphone panel with goose mic flush |
| SPA-M1-D | All-call microphone panel with goose mic flush dual |
| SPA-M6-V2 | 6 zone microphone panel with goose mic flush |
| SPA-M6S-D | 6 zone microphone panel with goose mic flush dual |
| SPA-M6HM-V2 | SPA-M6H-V2 with zone selection memory |
| SPA-M6SM-V2 | SPA-M6S-V2 with zone selection memory |
| SPA-M6HDM-V2 | SPA-M6H-D with zone selection memory |
| SPA-M6SDM-V2 | SPA-M6S-D with zone selection memory |
| SPA-AC6 | 6 button alarm panel |
| SPA-AC6-D | 6 button alarm panel dual |
| SPA-W1-V2 | All-call microphone panel with hand mic IP-66 |
| SPA-W1-D | All-call microphone panel with hand mic IP-66 dual |
| SPA-W1AR-V2 | All-call microphone panel with hand mic & two alarm buttons IP-66 |
| SPA-W1AR-D | All-call microphone panel with hand mic & two alarm buttons IP-66 dual |
| SPA-W2-D | 2 zone microphone panel with hand mic IP-66 |
| SPA-W6A4 | 6 zone microphone panel with hand mic & 4 alarm buttons IP-66 |
| SPA-W6A4-D | 6 zone microphone panel with hand mic & 4 alarm buttons IP-66 dual |
| MB-30G | Electret goose microphone |
| ETC-1 | Dynamic hand microphone |
| P-66 | Hand microphone IP-47 |
| P-66/10 | P-66 with 10 meter cable |
| SPA-REM7 | Remote panel for SPA-DARP16 |
| SPA-MON1 | Monitor panel |
| ETC-1-TB | Dynamic hand microphone |

**SPEAKERS**

| ID | Description |
|---|---|
| CL-200T | Ceiling10W IP-44 |
| CAU-4T | Wall 4W IP-55 |
| CW-4T | Wall 4W |
| CW-4T/VOF | Wall 4W w/ volume control override fused |
| CAR-4TF | Wall double face 4 fused |
| BF-560STT | Ceiling tropicalized 6W fused |
| VES-360TF | Ceiling 6W fused |
| 213000101 | Dual flush 6W |
| SAFE-10PTF | Wall 10W IP-44 |
| VML-15T | Horn 15W IP-66 |
| HP-15TF | Horn 15W fused IP-65 |
| HP-30T | Horn 30W IP-67 |
| DST-100 & DH-30/ DH-50 | Driver and horn 100W IP-67 |
| CAREEX-6T | Double face 6W Atex |
| DSP-15EExeNT | Horn 15W  Atex IP-67 |
| 2340020001 | Driver and horn 40W Atex |
| HP-20ST | Horn 20W Ex Z2 IP-67 |

**Reference documents:**
- Installation and configuration manual A100K10370
- User Manual  A100K10371
- Equipment list GR 11-001, Rev. V0.1

**Test reports:**
- DELTA Test Report DANAK-1911533, dated of 19.08.2011
- Nemko Test Report REP012967, dated 2023-06-28

**Remarks:**
System block diagram and project documentation is to be approved for each installation.

*The certificate supersedes certificate ELE117918XG.*

**HAMBURG  November 9, 2023**

Giuseppe Russo