



**TYPE APPROVAL CERTIFICATE  
N. ELE179112CS**

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

<i>Description</i>	<b>Alarm system for high and very high level in cargo tanks</b>
<i>Type</i>	<b>OAS-5</b>
<i>Applicant</i>	<b>OMICRON A/S Stalsbergveien 9 N-3106 Tonsberg Norway</b>
<i>Manufacturer</i>	<b>OMICRON A/S Stalsbergveien 9 N-3106 Tonsberg Norway</b>
<i>Testing Standards</i>	<b>RINA Rules for the Classification of Ships - Part C, Machinery, Systems and Fire Protection - Chapter 3, Section 6 , table 1</b>

Issued in **Genova** on **June 06, 2012**.

This certificate is valid until **June 05, 2017**

*Valerio Bonanni*

**RINA**

*Valerio Bonanni*





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**OAS- 5** Alarm system for high and very high level alarm in cargo tanks comprises the following modules:

Intrinsically safe alarm module type OAU-01A / Ex including:

- zener safety barriers type Ex1-W00
- pre-programmed ATmega64-16Al microprocessor unit

Float magnetic level switches type HL- 8903 /8903A and HHL -8903 / 8903A

Common alarm panel and processing unit type CU2

Power supply module type PULS ML 70.100

*System diagnostics :*

- Loop Failure testing device
- System / power failure alarm
- Lamp test

*Power supply inputs:*

115 / 230 Vac  
24 Vdc

**Barrier safety characteristics:**

- Marking: EEx ia IIC
- Certification authority: NEMKO
- Certificate: EX-95.D072 with Annex
- Safety Standard: EN 50.014, EN 50.020

**Reference document:**

OMICRON doc. : High level and overfill alarm system for Huelva 827  
OMICRON dwg's: A3-91009, A4-91005, A4-89030, A4-89019A, A4-89018A,  
A4-89005A, A4-89004B, A4-91003, A4-89003C, A4-89002B,  
A4-89011B, A4-89009A, A4-89010B, A4-89007, A4-89022

**Test Reports:**

SP EMC report n° 95F50693 of 3/05/1995  
NEMKO EMC report: n° 200007274 of 29/02/2000  
NEMKO Mechanical / Temperature report : n° 199512239 of 09/05/1995  
NEMKO Mechanical report n° SOC AM 1434 of 0/10/2003  
PULS EMC report n° AN-327.030.08-XF Issue1 09/01/2003, n° AN-327.100.08,  
n° 900.38, n° EWG-TP014-E01 Issue 1  
OEM Automatic report - Damp heat of 18/03/2004  
DNV report - Vibration n°89-1048 dated 20.06.89

Genova, June 06, 2012

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