



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. A-11308  
This Certificate consists of 3 pages

*This is to certify that the*  
**Pressure Transmitter**

*with type designations*  
**PCE-28 (PC-28); PCE-28P (PC-28P); PRE-28 (PR-28)**  
**APC-2000ALW; PCE-28Smart (PC-28Smart)**  
**APR-2000ALW; PRE-28Smart (PR-28Smart)**

*Manufactured by*  
**"APLISENS" S.A.**  
Warszawa, Poland

*is found to comply with*  
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and  
Det Norske Veritas' Offshore Standards

*Application*

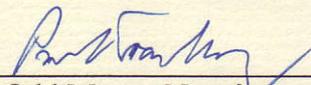
Location classes:

Temperature	Humidity	Vibration	EMC	Enclosure
D	B	B	B	C

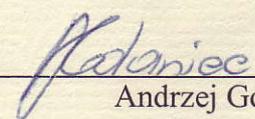
*Place and date*  
Høvik, 2009-05-29  
for DET NORSKE VERITAS AS

*This Certificate is valid until*  
2013-06-30



*f.p.*  
  
Odd Magne Nesvåg  
Head of Section

Local Office  
DNV Sopot

  
Andrzej Gdaniec  
Surveyor *Sm*

**Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.**

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: A-11308  
 File No.: 892.10  
 Job Id.: 262.1-006045-1

## Product description

The following type designations are included in the certificate:

- Pressure transmitter PCE-28 (PC-28)
- Pressure transmitter PCE-28P (PC-28P)
- Differential pressure transmitter PRE-28 (PR-28)
- Smart pressure transmitter APC-2000ALW
- Smart pressure transmitter PCE-28Smart (PC-28Smart)
- Smart differential pressure transmitter APR-2000ALW
- Smart differential pressure transmitter PRE-28Smart (PR-28Smart)

## Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

The cable installation has to be carried out according to the rules for classification of ships with respect to routing, fixing, protection, penetration of decks / bulkheads and the use of cable pipes. Fixing of cables above sensor shall be provided.

## Type Approval documentation

User's Manual	DTR.APC.APR.ALW.01
User's Manual	DTR.PCE.PRE-28
APLISENS Technical specification	Dated 27.08.08
Drawings	PC28-A114-TA; PR28-A114-TA; PC28P-A001-TA APC2000-A614-TA; APR2000-A615-TA PR28S-A001-TA; PC28S-A001-TA PC28-S032-02; PC18-S001-01; APC2000-S611-02 SG25-S005TA
APLISENS Product Catalogue	Edition 2008/09
IEL (The Electrotechnical Institute) Gdansk Test Report	No. 050/LMC-967/2009, dated 24.03.2009 No. 017/LBS-967/2009, dated 30.03.2009 No. 046/LMC-967/2009, dated 24.03.2009 No. 019/LBS-967/2009, dated 30.03.2009 No. 048/LMC-967/2009, dated 23.03.2009



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IEL (The Electrotechnical Institute) Gdansk Test Report	No. 026/LBS-967/2009, dated 30.03.2009 No. 049/LMC-967/2009, dated 24.03.2009 No. 024/LBS-967/2009, dated 30.03.2009 No. 047/LMC-967/2009, dated 23.03.2009 No. 020/LBS-967/2009, dated 30.03.2009 No. 028/LMC-968/2009, dated 17.03.2009 No. 016/LBS-968/2009, dated 16.03.2009 No. 027/LMC-968/2009, dated 17.03.2009 No. 015/LBS-968/2009, dated 16.03.2009
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### Tests carried out

Applicable tests according to DNV Standard for Certification No. 2.4, April 2006.

### Certificate retention survey

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the survey are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE