[1] # EC-TYPE EXAMINATION CERTIFICATE

[2] Equipment, protective systems and components intended for use in potentially explosive atmospheres - Directive 94/9/EC

[3] EC – type examination certificate:

KDB 08ATEX224X

[4] Equipment or protective system:

Smart Pressure Transmitter type APC-2000ALW/XX

Smart Differential Pressure Transmitter type APR-2000ALW/XX and APR-2200ALW/XX

Smart Level Probe type APR-2000YALW/XX

[5] Manufacturer:

APLISENS S. A.

[6] Address:

ul. Morelowa 7, 03-192 Warszawa

[7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Główny Instytut Górnictwa, Notified Body number 1453 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment and protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report KDB No. 08.170 [T-6339]

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2006; EN 60079-1:2007;
EN 60079-11:2007; EN 60079-26:2004;
EN 61241-0:2006; EN 61241-1:2004;
EN 61241-11:2006

[10] If the sign „X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-type examination certificate relates only to the design and construction of the specified equipment and protective system in accordance with Directive 94/9/EC.
Further requirements of the Directive may apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

see point 15

Date of issue: 30.07.2008

Date of English version: 30.07.2008

SPECJALISTA ds. CERTYFIKACJI
URZĄDZEŃ PRZECIWWYBUCHOWYCH
mgr inż. Wojciech Kwiatkowski

Główny Instytut Górnictwa w Katowicach
Jednostka Certyfikująca
Zespół Certyfikacji Wyrobów KD "Barbara" Mikołów

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AC 038

[13] # SCHEDULE

[14] **EC-Type Examination Certificate KDB 08ATEX224X**

[15] **Description:**

The APC-… pressure transmitters are intended for the measurement of pressure, underpressure and overpressure of gases, vapors and liquids (with corrosivity abilities also), APR-… transmitters whereas to measure differential pressure, level and density.

Transmitters can be fitted with special process connections and diaphragm seals if required (e.g. for aggressive and dense medium, high and low temperature). Fitting accessories and diaphragm seals are described in manufacturer catalogue.

The housing of pressure transmitters is an Aplisens flameproof enclosure type AL164. The enclosure is fitted with flameproof cable glands and closing devices listed in the descriptive documentation. Inside the enclosure is placed the intrinsic circuit with galvanic separation with protection level ia. Additionally a combination of flameproof joint and a separation element is used. The separation element is a partition wall made from stainless steel with thickness smaller than 0,2mm.

Marking:

II 1/2 G Exia/dIIC T6/T5

II 1/2 D ExiaD 20 /tD A21 T85/T100

Comment:

marking T6 and T85 applies to range -40°C<Ta<+45°C

marking T5 and T100 applies to range -40°C<Ta<+75°C

Technical parameters:

Measurement range	0,7kPa÷60MPa - APC-2000ALW/XX; 4kPa÷2,5MPa - APR-2000ALW/XX and APR-2200ALW/XX 1,6mH_2O ÷ 10mH_2O - APR-2000YALW/XX
Output signal	4 ÷ 20 mA;
Accuracy	0,075 % ÷ 0,5 % in dependence on the measurement range;
Power supply	13,5VDC ÷ 45VDC (nominal 24 VDC);
Ambient temperature range	-40 °C ÷ +45°C/+75°C;
Degree of protection provided by enclosure	IP67

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[13] # SCHEDULE

[14] **EC-Type Examination Certificate KDB 08ATEX224X**

[16] **Test report:**

Report no. KDB Nr 08.170
The relative pressure of 38 [bar] was applied during the overpressure test in conformity with EN 60079-1:2007. It is four times the reference pressure for enclosures not subject to routine overpressure testing.

[17] **Special condition for safe use:**

17.1 As the replacing elements, can be use only those specified in the descriptive documentation;

17.2 Permitted gap of spigot joint marked in documentation by L_4 is smaller then specified in EN 60079-1:2007 and it can not exceed values specified in manual instruction.

[18] **Essential health and safety requirements:**

Met by compliance with standards listed in section 9. of this Certificate.

[19] **Descriptive documents:**

Technical documentation - DT.APC-2000ALW.Exd.01		07.2008
Specification	APC-2000-A630-01	07.2008
Fig. Data plate (sheet 1÷3)	APC2000-C631-TA	07.2008
Fig. Pressure transmitter APC-2000ALW/XX (sheet 1÷3)	APC2000-A631-TA	07.2008
Fig. Differential pressure transmitter APR-2000ALW/XX (sheet 1÷3)	APR2000-A631-TA	07.2008
Fig. Smart level probe APR-2000YALW/XX (sheet 1÷3)	APR2000-A633-TA	07.2008
Fig. Pressure transmitter APC-2000ALW/XX with separators	APC2000-A632-TA	06.2008
Fig. Differential pressure transmitter type APR-2000ALW/XX i APR-2200ALW/XX with separators	APR2000-A634-TA	07.2008
Fig. Pressure transmitter APC-2000ALW/XX dimensions of flameproof joints (sheet 1÷2)	APC2000-A631-Z	07.2008
Fig. APC-2000ALW schematic diagram of connection MPC5-FO board assembly (sheet 1)	APC2000-S631-01	07.2008
Fig. APC-2000ALW schematic diagram of MPC5-rev1 board assembly (sheet2)	APC2000-S631-01	07.2008
Fig. APC-2000ALW schematic diagram of MPC5-AD-rev1 board assembly (sheet 3)	APC2000-S611-01	12.2007
Fig. APC-2000ALW schematic diagram of MPC5-AD-rev2 board assembly (sheet 4)	APC2000-S611-01	12.2007
Fig. The MPC5-FO board assembly (ark 1÷2)	APC2000-B631-01	07.2008
Fig. The MPC5-rev1 board set. (sheet 1÷8)	APC2000-B612-03	07.2008

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[13] # SCHEDULE

[14] **EC-Type Examination Certificate KDB 08ATEX224X**

[19] **Descriptive documents:**

Fig. The MPC5-AD-rev1 board assembly (A/C converter board) (sheet 1÷3)	APC2000-B613-01	12.2007
Fig. The MPC5-AD-rev2 board assembly (A/C converter board) (sheet 1÷3)	APC2000-B614-01	12.2007
Fig. Elastic print STR1-rev4.	APC2000-B615-01	12.2007
Fig. Elastic print STR2-rev2.	APC2000-B616-01	12.2007
Fig. Elastic print STR3-rev2.	APC2000-B617-01	12.2007
List of interchanging cable glands and stopping plugs with flameproof marking EExd IIC	APC2000-C634-01	07.2007
Fig. High and absolute pressure head assembly (sheet 1÷3)	APC2000-B632-TA	07.2008
Fig. Low and medium pressure head assembly (sheet 1÷3)	APC2000-B630-TA	07.2008
Fig. Differential pressure head assembly GR-40 (sheet 1÷3)	APC2000-B634-TA	07.2008
Fig. Differential pressure head assembly GR-50 (sheet 1÷2)	APC2000-B633-TA	06.2008
Fig. Differential pressure head assembly of level probe APR-2000YALW (sheet 1÷2)	APC2000-B635-01	07.2008
Fig. Encapsulated separation transformer	APC2000-B642-00	06.2008
Fig. Separation transformer	APC2000-B622-00	12.2007
Fig. Body of separation transformer	APC2000-C612-00	12.2007
Fig. Ø15 bushing	ZG-002-TA	06.2007
Fig. Bushing assembly	ZG-006-TA	10.2004
Fig. Head - medium, high, absolute pressure, flameproof performance (sheet 1÷3)	GC4-015-TA GC3-012-TA	07.2008
Fig. Head - low, medium, absolute pressure, flameproof performance (sheet 1÷3)	GC3-001-TA	06.2007
Fig. Head with frontal diaphragm (sheet 1÷2)	GC3-003-TA	06.2007
Fig. Head - medium, high, absolute pressure (sheet1÷3)	GC4-001-TA	06.2007
Fig. High pressure head (sheet 1÷3)	GC4-005-TA	06.2007
Fig. Differential pressure head (sheet 1÷2)	GR40-001-TA	06.2007
Fig. Differential pressure head with connectors	GR40-002-TA	03.2007
Fig. Differential pressure head with covers	GR40-003-TA	12.2006
Fig. Differential pressure head (sheet 1÷2)	GR50-001-TA	06.2007
Fig. Ø15 diaphragm	G-181-00-EE	06.2004
Fig. Ø25 diaphragm	G-059-00-EE	07.2004
Fig. Enclosure (sheet 1÷9)	A-164-TA	06.2007
Fig. Solid cover assembly	ZA-026-TA	06.2008
Fig. Cover with glass assembly	ZA-027-TA	03.2005

[13] # SCHEDULE

[14] **EC-Type Examination Certificate KDB 08ATEX224X**

[19] **Descriptive documents :**

Fig. Solid cover	A-168-02	06.2007
Fig. Cover - cemented glass	A-169-04	06.2007
Fig. Glass	A-188-00	02.2004
Fig. Enclosure bushing	ZA-024-TA	07.2008
Fig. Exd bushing assembly	ZA-057-00	06.2008
Fig. Exd bushing assembly	ZA-058-00	07.2008
Fig. ½ NPT closing device	A-195-00	02.2004
Fig. M20x1,5 closing device	A-194-00	02.2004
Fig. Label	A-197-00	07.2008

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