



AC 038



KDB AT-EX



Główny Instytut Górnictwa  
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This certificate and its  
schedules may only be  
reproduced in its entirety and  
without change



# [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 08ATEX002X**

[4] Equipment or protective system:

**Pressure transmitters type PC-28/XX/YY,  
PCE-28/XX/YY, PC-28P/XX/YY, PCE-28P/XX/YY and  
Differential pressure transmitters type  
PR-28/XX/YY, PRE-28/XX/YY**

[5] Manufacturer:

**APLISENS-Manufacture Of Pressure Transmitters  
and Control Instruments**

[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. 08.004 [T-6123]


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

EN 60079-0:2004; EN 60079-0:2006;  
EN 50303:2000; EN 60079-26:2004;  
EN 60079-11:2007

[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:


 **III1/2G, Ex ia IIC T4..T6  
IM1, Ex ia I**

Date of issue: 14.01.2008

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Date of English version: 14.01.2008

SPECJALISTA ds. CERTYFIKACJI  
URZĄDZEŃ PRZECIWWYBUCHOWYCH

  
mgr inż. Wojciech Kwiatkowski



  
K I E R O W N I K  
Zespołu Certyfikacji Wytobów  
KD „BARBARA” Mikołów  
doc. dr hab. inż. Krzysztof Cymbulski



[13]

## SCHEDULE

[14]

EC-Type Examination Certificate KDB 08ATEX002X

[15] Description:

Pressure transmitters PC-28, PCE-28P are designed to measure positive gauge pressure, vacuum pressure and absolute pressure of gases, vapors and liquids.

The transmitters PC-28P, PCE-28P are designed to measure of level of liquid.

Differential pressure transmitters PR-28, PRE-28 are designed to measure liquid levels in closed tanks and to measure differential pressure across constrictions.

The electronic part is identical in all versions.

The active sensing element is a silicon diaphragm with in-diffused piezoresistors located in sensing module.

The electronic part amplifies and standardizes the output signal of measuring bridge.

The casing of the transmitters, made from stainless steel pipe, is stable mounted on the sensing module.

On the other side can be mounted the following electrical connections:

- PD (angular connector produced by Hirschmann)
- PZ (terminal box with packing gland PG-11)
- PK (cable connector - stable interval of cable.)

XX indicate type of process connector.

YY indicate the type of electric connector.

### Technical parameters:

Measurement range	2.5kPa ÷ 100MPa (positive gauge pressure, vacuum pressure) and 40kPa ÷ 8MPa (absolute pressure) for PC-28, PCE-28 1kPa ÷ 2,5MPa for PR-28, PRE-28
Output signal	4 ÷ 20mA two-wire transmission
Accuracy	0,25% up to 0,4% (dependent on measurement range)
Ambient temperature limit	-40°C ÷ +60°C, -40°C ÷ +80°C
Supply	Intrinsic safety power line with power supply max 28V
Degree of protection	IP65 for PD and PZ connectors IP67 for PK

### Permitted parameters:

- $U_i = 28V$  DC
- $I_i = 0.1A$
- $L_i = 0.9mH$
- $C_i = 40nF$





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## SCHEDULE

[14]

### EC-Type Examination Certificate KDB 08ATEX002X

Temperature classification	Ta [°C]	Pi [W]
T4 and group I	80	1.22
T6	60	1.22
T5	70	1.52
T5	80	0.91

Note. The pressure transmitter is an intrinsic safety apparatus with level of protection "ia", when supply circuit have level of protection "ia"

[16] **Test report:**

Report KDB No 08.004

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

- electrical installation of pressure transmitters shall comply with installation requirements of valid standard.

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

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

[19] **Descriptive documents:**

Technical description rev.1(2 sheets)	PC28-A300-01	08.2007
Rating plate rev.1(2 sheets)	PC28-C301-01	06.2007
Circuit diagram PC-28, PR-28	PC28-S301-00	08.2007
Printed circuit board assembly(2 sheets)	PC28-B033-00	07.2007
Printed circuit board assembly of filter PC28F3B(2 sheets)	PC28-B016-00	08.2007
Terminal board assembly P28(2 sheets)	ZA-008-01	08.2007
System compensation assembly for range 600kPa ABS	PC28-B010-TA	07.2007
Technological advice	PC28-A301-TA	07.2007
Pressure transmitter type PC-28, PC-28P, PCE-28, PCE-28P rev.1(3 sheets).	PC28-A304-TA	07.2007
Differential pressure transmitter type PR-28, PRE-28 rev.1(2 sheets)	PR28-A304-TA	07.2007
Board of head PG-2	A-203-00	05.2004
Bushing Φ15	ZG-002-TA	06.2007





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## SCHEDULE

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### EC-Type Examination Certificate KDB 08ATEX002X

Transistor bushing assembly	ZG-006-TA	10.2004
Very low pressure sensor module (3 sheets) p<20kPa	GC1-007-TA	06.2007
Low, middle, absolute pressure sensor module (3 sheets)	GC3-001-TA	06.2007
Sensor module with frontal membrane (2 sheets)	GC3-003-TA	06.2007
Middle, high, absolute pressure sensor module (3 sheets)	GC4-001-TA	06.2007
High pressure sensor module (3 sheets)	GC4-005-TA	06.2007
Differential pressure sensor module (2 sheets)	GR50-001-TA	06.2007
Differential pressure sensor module (2 sheets)	GR40-001-TA	06.2007
USER'S MANUAL	DTR.PC.PR-28	11.2007
"Analysis of conformity with standard for pressure transmitters type PC-28, PC-28P, PCE-28, PCE-28P and differential pressure transmitters type PR-28, PRE-28"	AN.PC-28.02	

