



AC 038



KDB ATEX



[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 08ATEX018

[4] Equipment or protective system:

ATX type Temperature Transmitter

[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. 08.019 [T-6132]

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

EN 50303:2000, EN 60079-0:2006, 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:



I M1 Ex ia I

II 1 G Ex ia IIC T4/T5/T6

Date of issue: 4.02.2008

Date of English version: 3.03.2008

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[13]

SCHEDULE

[14]

EC-Type Examination Certificate KDB 08ATEX018

[15] **Description :**

ATX type Temperature Transmitters are a microprocessor measuring devices forcing current signal proportional to the input temperature signal from Pt or Ni temperature sensors in a two-wire current loop. Using microprocessor allows to digital signal processing (filtration, linearization), and sensor range and type programming.

The device is made as a disassembling module. The electronic circuit board is assembled in a plastic case and moulded. Trasmmitter has five electrical terminals: two to device supply (No.1 and No. 2) and three to sensor connection (No. 3, No.4, No.5) in two or three wire measuring system. Device is designed to assembling in the standard temperature sensor head in the place of temperature sensor terminal.

Producer signing of device: **ATX / 1 / 2 ÷ 3 / 4,**

1 - sensor type: Pt or Ni;

2 ÷ 3 - °C measuring range;

4 - sensor signal interrupt output current: 3,8mA or 23mA.

Technical parameters:

Input signal	$10 \leq \Delta R \leq 380\Omega$
Output signal	4 ... 20mA
Supply voltage	10 ... 28VDC
Load resistance	500Ω max.
Measurement error	$\pm 0,2\%$, (min 0,25% °C / 0,1Ω)
Input line resistance changes error	$\leq \pm 0,016\%$ (measured value)/1Ω
Ambient temperature	- 40°C ... +80 °C
Relative humidity	30 ... 80%
Constant and variable magnetic field	0 ... 400A/m
Sinusoidal vibrations (in the range from 5 to 80Hz)	to 2g
Operating position	any
Atmosphere components	no aggressive components
Installation place	standard temperature sensor head in the place of temperature sensor terminal.



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SCHEDULE

[14]

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[15] Description sequel:

Degree of protection	IP6X device, IP00 terminals			
Programming terminals	To programming under production and repair only			
Intrinsic parameters:				
Supply terminals: 1(+) and 2(-): $U_i = 28V$, $I_i = 100mA$, $P_i = 1,2W$, $L_i = 20\mu H$, $C_i = \sim 0$,				
Input terminals 4 + 5 and 3: $U_o = U_i$, $I_o = 3,3mA$, $P_o = 20mW$, $L_o = 100\mu H$, $C_o = 22nF$.				
Temperature class device (Tx), ambient temperature (Ta) and supply power (Pi) dependence:				
	Ta			
Pi [W]	80°C	70°C	60°C	50°C
1,2	T4	T5	T5	T6
1,0			T6	
0,8				
0,7	T5	T5	T6	T6
0,6				
0,5				



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SCHEDULE

[14]

EC-Type Examination Certificate KDB 08ATEX018

[16] **Test report:**

Report KDB No 08.019

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

-any

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

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

[19] **Descriptive documents:**

DT.ATX.01 Technical Documentation:

1. ATX type head temperature transmitter Construction drawing schedule	1	AT-A000-00
2. ATX type head temperature transmitter Technical description	1,2,3	AT-A000-01
3. Rating plate	1	AT-C005-TA
4. ATX type head temperature transmitter Circuit diagram	1	AT-S001-00
5. Printed-circuit board unit	1,2	AT-B001-TA
6. ATX type head temperature transmitter	1	AT-A001-00
7. Transmitter case	1	AT-C001-00
8. Basis	1	AT-C002-00
9. Terminal	1	AT-C003-00
10. Electrical board	1	AT-C004-00

