(1) # EU - Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres – **Directive 2014/34/EU**

(3) EU - Type Examination Certificate Number

EPS 23 ATEX 1 089 X **Revision 0**

(4) Equipment: Temperature transmitter T7x

(5) Manufacturer: Pyromation LLC

(6) Address: 5211 Industrial Road
Fort Wayne, IN 46825
United States

(7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment 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 of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 17TH0425.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

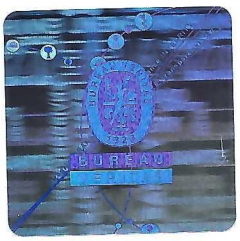
EN IEC 60079-0:2018 **EN 60079-11:2012**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

(11) This EU - Type Examination Certificate relates only to the design and construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 1G Ex ia IIC T6...T4 Ga	(Head)
II 2G Ex ia IIC T6...T4 Gb	(Head)
II 2(1)G Ex ia [ia Ga] IIC T6...T4 Gb	(Field)
II 2(1)G Ex ib [ia Ga] IIC T6...T4 Gb	(DIN Rail)



Certification department of explosion protection

Ulrich Feike

Tuerkheim, 2023-07-20

(13) # Annex

(14) **EU - Type Examination Certificate EPS 23 ATEX 1 089 X** **Revision 0**

(15) Description of equipment:

The temperature transmitter type T7x is a two-wire transmitter with analogue output. It has measuring input circuits for resistance thermometers (RTD) in 2-, 3- or 4-wire connection, thermocouples and voltage transmitters. Setting up is done using the HART-Protocol for T72 or PC programming for T71.

The equipment is intended for the application inside the explosion hazardous areas.

Electrical data:

Head transmitter:

Power supply			
(terminals + and -)	Ui	≤	30 V DC
	Ii	≤	100 mA
	Pi	=	800 mW
	Ci	=	negligibly small
	Li	=	negligibly small
Sensor circuit			
(terminal 3 to 6)	Uo	≤	4.3 V DC
	Io	≤	4.8 mA
	Po	≤	5.2 mW

Max. connection values		
Ex ia IIC	Lo = 50 mH	Co = 3 µF
Ex ia IIB	Lo = 100 mH	Co = 18 µF
Ex ia IIA	Lo = 100 mH	Co = 48 µF

DIN rail transmitter:

Power supply			
(terminals + and -)	Ui	≤	30 V DC
	Ii	≤	100 mA
	Pi	=	700 mW
	Ci	=	negligibly small
	Li	=	negligibly small
Sensor circuit			
(terminal 3 to 6)	Uo	≤	4.3 V DC
	Io	≤	4.8 mA
	Po	≤	5.2 mW

Max. connection values		
Ex ia IIC	Lo = 50 mH	Co = 3 µF
Ex ia IIB	Lo = 100 mH	Co = 18 µF
Ex ia IIA	Lo = 100 mH	Co = 48 µF

Display interface			
(CDI connection)	Uo	≤	4.3 V DC
	Io	≤	100 mA
	Ci	=	negligibly small
	Li	=	negligibly small

Max. connection values		
Ex ia IIC	Lo = 5.6 mH	Co = 1.7 µF
Ex ia IIB	Lo = 28 mH	Co = 10 µF
Ex ia IIA	Lo = 48 mH	Co = 33 µF

Ambient temperature range:

Type (order option)	Temperature class	Ambient temperature Zone 1/ EPL Gb	Ambient temperature Zone 0/ EPL Ga
T7x Head transmitter without display	T6	-50 °C ≤ Ta ≤ +55 °C	-50 °C ≤ Ta ≤ +40 °C
	T5	-50 °C ≤ Ta ≤ +70 °C	-50 °C ≤ Ta ≤ +60 °C
	T4	-50 °C ≤ Ta ≤ +85 °C	-50 °C ≤ Ta ≤ +60 °C
T7x Head transmitter with display (D10)	T6	-40 °C ≤ Ta ≤ +55 °C	
	T5	-40 °C ≤ Ta ≤ +70 °C	
	T4	-40 °C ≤ Ta ≤ +85 °C	
T7x Field housing without display	T6	-50 °C ≤ Ta ≤ +55 °C	
	T5	-50 °C ≤ Ta ≤ +70 °C	
	T4	-50 °C ≤ Ta ≤ +85 °C	
T7x Field housing with display	T6	-40 °C ≤ Ta ≤ +55 °C	
	T5	-40 °C ≤ Ta ≤ +70 °C	
	T4	-40 °C ≤ Ta ≤ +85 °C	
T7x...D (DIN rail transmitter)	T6	-50 °C ≤ Ta ≤ +43 °C	
	T5	-50 °C ≤ Ta ≤ +58 °C	
	T4	-50 °C ≤ Ta ≤ +85 °C	

(16) Reference number: 17TH0425

(17) Special conditions for safe use:

In hazardous areas it is not permitted to use the CDI interface of T7x for configuration.

The head transmitter and DIN rail transmitter must be protected against electrostatic charge/ discharge.

(18) Essential health and safety requirements:

Met by compliance with standards.

Certification department of explosion protection

Tuerkheim, 2023-07-20

Ulrich Feike