

## EU - Type Examination Certificate

- (1)
- (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 1 087 X**

**Revision 0**

- (4) Equipment: Temperature transmitter T82, T82 DIN Rail
- (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 17TH0239.
- (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 1G Ex ia IIC T6... T4 Gb

(Head)



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

(DIN Rail)



Certification department of explosion protection

Tuerkheim, 2023-07-11

Ulrich Felke



Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH.

(13)

## Annex

(14) **EU - Type Examination Certificate EPS 23 ATEX 1 087 X**

**Revision 0**

(15) Description of equipment:

The temperature transmitter T82 or T82 DIN Rail, 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.

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

The DIN Rail version is intended to be installed in control cabinets.

Electrical data:

Head transmitter:

Power supply

(terminals + and -)

$U_i$	$\leq$	30 V DC
$I_i$	$\leq$	130 mA
$P_i$	=	800 mW
$C_i$	=	negligibly small
$L_i$	=	negligibly small

Sensor circuit

(terminal 3 to 7)

$U_o$	$\leq$	7.6 V DC
$I_o$	$\leq$	13 mA
$P_o$	$\leq$	24.7 mW

Max. connection values

Ex ia IIC	$L_o = 10$ mH	$C_o = 1$ $\mu$ F
Ex ia IIB	$L_o = 50$ mH	$C_o = 4.5$ $\mu$ F
Ex ia IIA	$L_o = 50$ mH	$C_o = 6.7$ $\mu$ F

Display interface

(CDI connection)

$U_o$	$\leq$	7.6 V DC
$I_o$	$\leq$	130 mA
$C_i$	=	negligibly small
$L_i$	=	negligibly small

Max. connection values

Ex ia IIC	$L_o = 3.1$ mH	$C_o = 0.64$ $\mu$ F
Ex ia IIB	$L_o = 16$ mH	$C_o = 3.8$ $\mu$ F
Ex ia IIA	$L_o = 27$ mH	$C_o = 12$ $\mu$ F

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**Revision 0**

**DIN Rail transmitter:**

**Power supply**

(terminals + and -)

$U_i$	$\leq$	30 V DC
$I_i$	$\leq$	130 mA
$P_i$	$=$	770 mW
$C_i$	$=$	negligibly small
$L_i$	$=$	negligibly small

**Sensor circuit**

(terminal 3 to 8)

$U_o$	$\leq$	9 V DC
$I_o$	$\leq$	13 mA
$P_o$	$\leq$	29.3 mW

**Max. connection values**

Ex ia IIC	$L_o = 5$ mH	$C_o = 0.93$ $\mu$ F
Ex ia IIB	$L_o = 20$ mH	$C_o = 3.8$ $\mu$ F
Ex ia IIA	$L_o = 50$ mH	$C_o = 4.8$ $\mu$ F

Ambient temperature:

Type (order option)	Temperature class	Ambient temperature	
		Zone 1/EPL Gb	Zone 0/ EPL Ga
T82...	T6		$-52\text{ }^{\circ}\text{C} \leq T_a \leq +46\text{ }^{\circ}\text{C}$
T82...P	T5		$-52\text{ }^{\circ}\text{C} \leq T_a \leq +60\text{ }^{\circ}\text{C}$
Head transmitter without display	T4		$-52\text{ }^{\circ}\text{C} \leq T_a \leq +60\text{ }^{\circ}\text{C}$
T82...	T6	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +55\text{ }^{\circ}\text{C}$	
T82...P	T5	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$	
Head transmitter without display or with display (D10)	T4	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$	
T82...D	T6	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +46\text{ }^{\circ}\text{C}$	
(DIN rail transmitter)	T5	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +61\text{ }^{\circ}\text{C}$	
	T4	$-40\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$	

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(16) Reference number: 17TH0239

(17) Special conditions for safe use:

In hazardous areas it is not permitted to use the CDI interface of T82 for configuration.

(18) Essential health and safety requirements:

Met by compliance with standards.

Certification department of explosion protection

Tuerkheim, 2023-07-11

