


- (1) **EU-Type Examination Certificate**
- (2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**
- Directive 2014/34/EU
- (3) EU – Type Examination Certificate Number: **IEP 24 ATEX 1409X**
- (4) Product: **Etrans-TX1 temperature transmitter**
- (5) Firm Name: **Enelsan Endüstriyel Elektronik Sanayi A.Ş.**
- (6) Firm Address: **Çerkeşli OSB. İmes 4. Bulvarı No:11 41455 Dilovası / KOCAELİ – TÜRKİYE**
- (7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) The IEP Uluslararası Enerji Petrol Gözetim, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Sti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in confidential Report Nr: IEP.Rp.Ex.10-2844 date 20.06.2024.
- (9) Compliance with 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 product is subject to Specified Conditions of Safe Use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance with the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the equipment or protective system shall include the following:

 II ½G Ex ia IIC T6...T1 Ga/Gb

**Responsible Person :**

Nurettin Terzioglu  
Head of Certification Body



**Date of Issue : 25.06.2024**





# IEP ENERGY PETROLEUM INSTITUTE

(13) Schedule

(14) Certificate Nr: **IEP 24 ATEX 1409X**

(15) Description of Equipment;

Enelsan Etrans-TX1 temperature transmitters are placed in a stainless-steel body and are composed of a piezoresistive measurement cell and an electronic card on the stainless-steel sensor.

RTD and/ or thermocouple probes are used as intrinsically safe equipment for temperature measurement in liquid and gaseous media. The thermometers consist of a protection fitting with various process connection options, a terminal head, or a connecting cable. All fittings in contact with the process made from stainless steel material. The Pt100 temperature sensors mounted in the-fittings are to EN 60751, in tolerance classes A, B in a 2-, 3-, or 4-wire circuit. It is also possible to use these sensors with a higher reference value. (Pt500; Pt1000). They must be connected to a certified intrinsically safe circuit. The thermometers fulfil the requirements for Explosion Group II in Categories 1G (inner area) as well as 2G (outer area) determined in the EN 60079-10-1 standards.

### Entity Parameters:

Measuring principle	Resistance
Truth	Class A, class B for RTD (DIN EN IEC 60751) ±0.15°C/0.2% for current output
Current output	4-20 mA 2-wire, 4-20 mA + Hart
RTD	2,3,4 wire (ohm); 2xRTD (ohms)
4-20 mA	10...35 VDC, 100 Ma
Ambient temperature	-40...+85 °C
Sensor	PT100, PT1000
Prob	Stainless steel, teflon coating
Outer body	Aluminum casting
Protection Class	IP 67
Process Connections	1/4" (BSP, NPT, Male) 1/2" (BSP, NPT, Male) 1" BSP Clamp Flange
Dimensions	112x117x81 mm

The relation between the process temperature and the temperature class or maximum service temperature is as follows.

Maximum process temperature (°C)	Temperature class / Maximum service temperature (°C) of the assembly
75	T6
90	T5
125	T4
190	T3
285	T2
435	T1

**Responsible Person:**

Nurettin Terzioglu

Head of Certification Body



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# IEP ENERGY PETROLEUM INSTITUTE

(16) Certificate Nr: **IEP 24 ATEX 1409X**

**(17) Special Conditions for Safe Use;**

**17.1** The equipment must be installed so, that during intended use, including maintenance and cleaning, or during malfunctions that can normally be expected, an ignition source due to electrostatic charging of the enclosure is excluded.

**17.2** The meaning of (IEP 24 ATEX 1409X) X Means: Temperature transmitter shall be used as an intrinsically safe circuit Zener barrier. The Zener barrier specifications must be suitable according to the IIC gas group and transmitter energy sheets. To must be installed by authorized personnel according to the user manual and EN 60079-14. Periodic inspection should be carried out by authorized personnel according to EN 60079-17.

**(18) Essential Health and Safety Requirements:**

**18.1** Are included in standards, which are mentioned in clause (9) of this certificate. The products were approved in accordance with above mentioned standards and manufacturer's instruction.

**18.2** At the installation and the operation of the Enelsan Etrans-TX1 temperature transmitters must be observed manufacturer's manual 12 pages.

**(19) List of Documentation:**

- ♦ Operation Manual : 12 pages
- ♦ Component List : Table 2.4, dated 11.2023
- ♦ Drawings;

Drawing No;	Date;	Drawing No;	Date;
2.4.1	14.11.2023	TR-10	14.11.2023
2.5.1	14.11.2023	TR-11	14.11.2023
TR-01	14.11.2023	TR-12	14.11.2023
TR-02	14.11.2023	TR-13	14.11.2023
TR-03	14.11.2023	TR-14	14.11.2023
TR-04	14.11.2023	TR-15	14.11.2023
TR-05	14.11.2023	2.7	14.11.2023
TR-06	14.11.2023	GNK PT100	11.10.2021
TR-07	14.11.2023	PT100_BODY	11.10.2021
TR-08	14.11.2023	PT100_COVER	11.10.2021
TR-09	14.11.2023	PT100_Oring	11.10.2021

For the validity of the analysis-type certificate, the parts used in the Enelsan Etrans-TX1 temperature transmitters were confirmed in the component list.

**Responsible Person :**

Nurettin Terzioğlu  
Head of Certification Body



**Date of Issue : 25.06.2024**

