

1. **TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use in Potentially explosive atmospheres
Directive 2014/34/EU**

3. Type Examination Certificate Number: **EESF 19 ATEX 058X Issue 1**

4. Product: **Process Refractometer**

Certified types: **PR-43-XX-...-AX-... Series Process Refractometers**
(XX = AC, AP, PC, GC, GP or PP)

5. Manufacturer: **Vaisala Oyj**

6. Address: **Vanha Nurmijärventie 21, FI-01670 Vantaa, Finland**

7. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Eurofins Expert Services Oy, Certification Body No. S017 accredited by the Finnish Accreditation Service (FINAS), 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 2014/34/EU of February 2014.

The examination and test results are recorded in confidential report No. **EUFI29-20005689-T1**.

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

EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018

10. If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11. This Type Examination Certificate relates only to the design and construction of the specified product. 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 product shall include the following:



II 3 G Ex ec IIC T4 Gc
T_{amb} = -40 °C ... +65 °C

Espoo, 01.07.2021
Eurofins Expert Services Oy

Jenni Hirvelä
Senior Expert

Kari Koskela
Senior Expert

This document is digitally signed.

13. **Schedule**

 14. **Type Examination Certificate EESF 19 ATEX 058X Issue 1**

 15. **Description of Product**

PR-43-XX-...-AX-... Series Process Refractometers are process measurement instruments intended for measuring concentration of process liquids by means of optical refractive index measurement. The instruments are microcontroller-based with several auxiliary measurement functions (internal temperature, humidity, etc.).

The metal parts of the enclosure shall be earthed.

$U_N = 24 \text{ V}$

 16. **Report Number**

EUFI29-20005689-T1

 17. **Specific Conditions of Use**

1. The allowed ambient temperature range is $T_{amb} -40 \text{ °C} \dots +65 \text{ °C}$.

 18. **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed at item 9.

 19. **Drawings and Documents**

Drawings and documents are listed in the confidential report.

 20. **Certificate History**

Issue	Date	Report No.	Change
VTT 15 ATEX 079X	12.1.2016	VTT-S-05948-15	Prime certificate
Issue 1	29.6.2016	VTT-S-02849-16	Introduction of certified types PR-43-GC and PR-43-GP. Alternative "Large LED card" added.
Issue 2	4.7.2017	VTT-S-03901-17	Introduction of the Cooling Cover option. Minor material, mechanical and electrical changes.
EESF 19 ATEX 058X	30.8.2019	EUFI29-19004276-T3	Vaisala Oyj has acquired K-Patents Oy and it's Ex products. Manufacturing location has been changed to Vaisala's facilities. ExNB name changed from VTT Expert Services to Eurofins Expert Services.
Issue 1	01.07.2021	EUFI29-20005689-T1	Type of protection "nA" changed to "ec".