



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX EESF 21.0008X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2021-07-01
Applicant: **Vaisala Oyj**
Vanha Nurmijärventie 21
FI-01670 VANTAA
Finland
Equipment: **PR-23-XX-...-XX-... Series Process Refractometers (XX = AC, AP, GC, GP, M, MS, RP, SD or W)**
Optional accessory: N/A
Type of Protection: **Increased Safety "ec"**
Marking: Ex ec IIC T4 Gc

Approved for issue on behalf of the IECEx
Certification Body:

Jenni Hirvelä

Position:

Senior Expert

Signature:
(for printed version)

Date:

2021-07-02

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins Expert Services Oy
Kivimiehentie 4
FI-02150 Espoo
Finland



Expert Services



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Manufacturer: **Vaisala Oyj**
Vanha Nurmijärventie 21
FI-01670 VANTAA
Finland

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[FI/EESF/ExTR21.0008/00](#)

Quality Assessment Report:

[FI/EESF/QAR19.0011/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

PR-23-XX-...-XX-... 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.). Sensors communicate with the supply unit by using a two wire connection with both power supply and communications in the same pair.

The metal parts of the enclosure shall be earthed.

$U_N = 24 \text{ V}$

The overall power consumption of the sensor in normal operation is slightly less than 1 W, The sensor is a constant-current load with current set to 41 mA and the supply voltage is less than 24 V.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The allowed ambient temperature range is $T_{amb} -20 \text{ °C} \dots +65 \text{ °C}$.
2. The process heads of PR-23-XX-...-XX-... Series Process Refractometer types M, MS and W contain parts that are subject to electrostatic hazard. These types shall only be used for measuring liquids with high conductivity ($>10000 \text{ pS/m}$) in the presence of hazardous atmospheres.
3. The painted surface of the enclosure of PR-23-MS Process Refractometer is subject to electrostatic hazard, therefore the cleaning shall be done only with a damp cloth.