Vaisala in Brief



- Founded in 1936.
- Listed on NASDAQ
 Helsinki in 1944
- HQ in Vantaa, Finland
- Weather & Environment
 Industrial Measurements

Observations for a better world



Employs over



19% **68%**

13%



39% of Vaisala people work outside of Finland

18



2021 net sales 45.8 million euros EMEA APAC Americas 29% 31% 39%



of net sales



Committed to using



Technological Milestones





Vaisala K-PATENTS[®] Process Refractometer

The best way to measure concentrations



- Accurate
- No calibration drift
- Maintenance free



Industries Served



Critical Angle Measurement





Digital Camera

No drift possible – No false alarm





No Measurement Error





Correct Temperature Measurement





Patented CORE-Optics







MEDIUM AND LARGE PIPES





PIPES 2" OR SMALLER



VESSELS





REFRACTOMETER INSTALLATION IN VACUUM PAN



Refractometer sensor with counter adapter





REFRACTOMETER PRISM WASH

Refractometer sensor with integral water nozzle









User Interface

Remote usability with a web browser



- Ethernet UDP/IP
- Measurement values
- Diagnostic messages
- Alter configuration and settings



Exact Factory Calibration





Sensor Verification (1)



n_D calibration is traceable to international standards



Sensor Verification (2)

Menu guided procedure — Verification report



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Application Check List

 Process medium 	Dissolved material only
 Range and accuracy 	0-100 %, accuracy +/- 0.1%, repeatability +/- 0.05%
 Process temperature 	Max. 150°C (300°F)
 Process pressure 	Max. 25 bar (350 psi)
 Probe connection 	Flange or clamp/flush mounting/Saunders valve/Thread connection
 Probe wetted parts 	AISI 316L/special alloys/Teflon/Kynar
 Prism gaskets 	Teflon
 Pipe diameter & flow 	Smaller diameter = better velocity
 Ambient temperature 	Maximum 45°C (113°F)
 Hygiene requirements 	Sanitary 3A and EHEDG
 Area classification 	Safe / hazardous area
 Prism wash (optional) 	Sticky medium / Flow below 1.5 m/s