

Product Overview Process Refractometers

2024 2025

The iCS. Our smallest concentration sensor yet.

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Application Highlights

Food & Beverage



Quality control | Dilution or evaporation process control | Dealcoholisation process, Oechsle / Brix measurement | Process monitoring | extraction processes | CIP monitoring, product recovery and interface detection

Sugar, Starch & Sweeteners



Brix measurement of all common sugar types | Monitoring of the crystallisation processes | Impurity detection in condensate | Concentration measurement of starch or sweetener

Chemical, Petrochemical & Chemical Fibre



Concentration measurement of solvents | Urea concentration measurements | Ammonia concentration in fertiliser production | Interface detection in the oil phase separation

Pharmaceutical Industry



Monitoring of chemical reactions | Impurity Detection | Quality control of final products | Monitoring of extraction, mixing, preparation, crystallisation and dissolution processes | In accordance with Pharmacopoeia



Process Refractometer Overview



Small size concentration measurement for various applications

The iCS in-line sensor is designed to measure antifreeze concentration, specifically ethylene glycol, offering a compact and lightweight solution that fits easily even in tight spaces. This sensor not only ensures reliable measurements with minimal maintenance but can also be adapted to specific products. Its simple and flexible integration into processes, along with its cost-effectiveness in implementation and maintenance, make it an attractive choice. Built on proven, long-standing technology, the iCS sensor excels at monitoring ethylene glycol and cooling lubricant concentration, making it an essential tool for various industries.



Scan for technical specifications



iPR-Series



Advancing Process Control - The Excellence of our iPR-Devices

For over 35 years, SCHMIDT + HAENSCH's Inline Process Refractometers (iPR) have set the standard in process monitoring, adept in concentration monitoring, quality control, and detecting impurities. These devices reliably measure refractive index, determining concentrations or mixing ratios quickly and accurately, regardless of turbidity or viscosity. iPRs are compact, with built-in electronics in an IP69K housing, feature a durable LED light, and provide precise, rapid measurements. They comply with hygienic standards suitable for food and pharmaceutical applications, explosion protection when needed, offer user-configurable outputs such as RS232 and 4-20 mA and perform temperature compensation for specific substances, reflecting SCHMIDT + HAENSCH's dedication to innovation and quality in demanding environments.

Scan for technical specifications



Connections & Accessories

Cleaning Solutions

SCHMIDT + HAENSCH provides two automatic cleaning solutions for their devices: a versatile cleaning device using water, steam, or solvent to remove residues on the prism, and a proprietary ultrasonic system for processes where liquid cleaning is not an option.



Ultrasonic



Liquid / Steam

Inline Housings

SCHMIDT + HAENSCH'S GEA VARINLINE® housings for process instruments offer unparalleled flexibility and hygiene, accommodating multiple instruments within a design that prevents dead spaces, oxidation, and cleaning issues. These housings, capable of withstanding up to 10 bar pressure, are tailored to match pipeline diameters, ensuring optimal flow without separation.





Engineering & Custom Scales

Measurement results with highest accuracy

When implementing a new PAT, it is crucial to get the right results on the first day of installation. Our in-house lab service determines your specific measuring scale for your instrument, which is then provided for your measurements. This will ensure reliable and repeatable process control in the long run.





Company History

SCHMIDT + HAENSCH has developed from a rich history of engineering and scientific research. The family-run company was founded by Franz Schmidt and Herrmann Haensch in 1864 and has been part of innovative German technology from the beginning.



Herrmann Haensch

Franz Schmidt

Today, our long-standing experience is the foundation of a company culture of reliability, excellence and precision.

Visit our website to find out more about our company and product portfolio:



S+H founded by Franz Schmidt and Herrmann Haensch in Berlin	1864
Developing quartz wedge polarimeter in cooperation with Karl Ventzke	1864
Manufacturing microscopes for Rudolph Virchow	1879
Manufacturing interferometer for Michelson-Morley experiment	1881
Manufacturing of Abbe refractometer with Pulfrich-principle	1895
Manufacturing circle polarimeter for Swiss Nobel Price winner Alfred Werner	1905
Manufacturing color mixing apparatus according to Helmholtz-König	1921
Developing and manufacturing of worlds first fully automatic sugar polarimeter with digital display and printer	1963
First fully-automatic table refractometer with measuring range up to 1.72000 and a resolution of 10-5 Brix	1986
Developing first refractometers for process control	1992
Introduction of patented Multi-Wavelength Refractometer	2005
Launch of the VariFamily - Refractometer, Polarimeter and Density Meter	2018
Development of the SpectroPol - multi-wavelength scanning polarimeter	2022
Introduction of the iCS - the world's smallest process refractometer	2023
SCHMIDT + HAENSCH celebrates 160 year anniversary	2024

www.schmidt-haensch.com +49 30 417072 - 0 | sales@schmidt-haensch.de Follow us on 🥑 🛅 🖸 🟹 🛛