New OPTIQUAD-EOF 4050 W: inline analyser system for edible oil and fat processing

Press Release

- Inline measurement of free fatty acids (FFA), total polar material (TPM), peroxide value (POV), moisture, dirt and other values
- Continuous readings for dynamic control loops via four 4...20 mA outputs
- Wide range of applications in oil extraction, oil refinement, frying processes, oil recycling, and fat processing

Text:
Duisburg, March 22, 2016: KROHNE introduces OPTIQUAD-EOF 4050 W for the continuous inline measurement of free fatty acids (FFA), total polar material (TPM), peroxide value (POV), moisture or dirt. The optical spectroscopic analyser system is aimed at frying and other edible oil as well as fat applications.

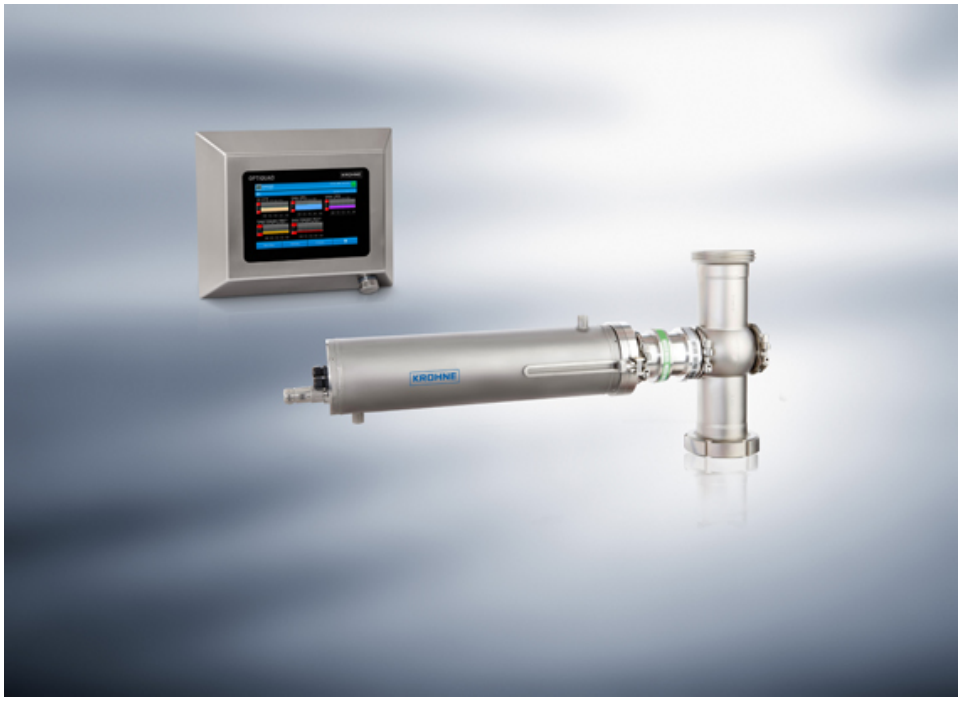
OPTIQUAD-EOF 4050 W measures directly in the pipe: analysis is achieved via an optical window mounted in a standard VARINLINE measuring section. The readings of FFA, TPM, POV moisture or dirt are provided instantly for process control or dynamic control loops via four 4...20 mA outputs. Depending on the application, measurement of anisidine value (AV) and iodine value (IV) are possible. Compared to conventional laboratory methods used to obtain these values, OPTIQUAD-EOF 4050 W reduces the need for sampling, sample transport and handling, and the associated sources of error and costs.

The optical spectroscopy analyzing method allows for a wide range of use in edible oil applications, such as oil extraction, oil refinement and frying processes up to oil recycling, as well as fat processing. For example, the continuous inline measurement of FFA content in frying oil helps to minimize the addition of fresh oil: the FFA value can be kept below a defined limit whilst allowing to maintain a high level of quality. It also provides a wide measuring range, e.g. 0…98% for FFA, and an accuracy of RMSEp: ±0,03% up to ± 1% FFA, depending on the measurement range.

OPTIQUAD-EOF 4050 W spectroscopic analysis system consists of the analyser unit (protection rating IP65/NEMA4X) and the operating unit, an industrial PC with touch screen display for parameterisation and automatic calibration in a stainless steel housing (IP65/NEMA4X), optionally built into a switch cabinet. It uses up to four measuring methods (transmission, scattering, fluorescence and refraction) with up to 12 wavelengths from ultraviolet to infrared. The underlying calibration is calculated automatically from reference data specific to the application. OPTIQUAD-EOF 4050 W is the successor of OPTIQUAD-FFA 4050 W.

About KROHNE
KROHNE is a full-service provider for process measuring technology for the measurement of flow, mass flow, level, pressure and temperature as well as analytical tasks. Founded in 1921 and headquartered in Duisburg, Germany, the company employs over 3,500 people all over the world and is present on all continents. KROHNE stands for innovation and maximum product quality and is one of the market leaders in industrial process measuring technology.

Picture:



Caption: New OPTIQUAD-EOF 4050 W spectroscopic analysis system for the continuous inline measurement of FFA,TPM, POV, moisture or dirt

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