

Purity Monitoring of Ethylidene Norbornene

Ethylidene Norbornene (ENB) is an important chemical monomer used in the production of cyclic olefin polymers, as a scent carrier in the fragrance industry, and most importantly in the production of EPDM. ENB is typically produced at a purity >99%. In order to ensure that ENB meets its quality specifications, the continuous on-line monitoring of purity is needed. On-line monitoring is made very difficult by both impurities and the temperature dependence inherent to ENB.



AMETEK Solution

The IPS-4 is a cost effective diode array-based UV-VIS analyzer that is specifically designed for the demands of continuous chemical and petrochemical manufacturing applications. Its full spectrum analysis provides the capability to monitor the purity of the ENB at all necessary wavelengths. A second advantage of the IPS-4 design is its powerful data processing capability which is needed to handle the complex temperature dependence of ENB. To monitor the purity of the ENB, the diode array measures the absorbance at the appropriate wavelengths and then performs all necessary corrections to compensate for temperature. These powerful abilities enable users to specify the required wavelengths to be monitored as well as to directly compare the analyzer's results with an off-line laboratory analysis whenever desired by the user.

AMETEK IPS-4 Features

- ▶ Fast optical response time of diode array
- ▶ Modular integrated photometer system for UV, VIS Applications
- ▶ No moving parts in the optical bench provides excellent wavelength stability
- ▶ Easy-to-use, multi-language LED display
- ▶ Xenon flash lamp source provides long service life – typically greater than two years
- ▶ Auto zero and auto calibration capability
- ▶ Optional heated sample cell enclosure available for operation up to 150°C
- ▶ MODBUS RTU communications protocol
- ▶ Pressure and temperature compensation

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Additional IPS-4 Applications

- ▶ Chlorine measurements in chemical processes
- ▶ Aromatics in water
- ▶ Glycol purity
- ▶ Chlorine in EDC
- ▶ Vanadium in TiC14
- ▶ Benzene, toluene and xylene (BTX) in hydrocarbon solvents
- ▶ Color monitoring of liquid hydrocarbons
- ▶ UV absorbance of petroleum products
- ▶ Phenol in water
- ▶ On-line quality assurance verification

Process Instruments' Expertise

The IPS-4 is backed by AMETEK Process Instruments' well established international sales and service networks. It is a product you can count on from a company you know and trust. AMETEK's applications expertise in chemical processes and handling of toxic and corrosive samples is your assurance that the IPS-4 is ready to meet your needs today and well into the future. Contact your local AMETEK office or representative today for further information.



455 Corporate Blvd., Newark DE 19702
Ph. +1-302-456-4400, Fax +1-3302-456-4444
www.ametekpi.com



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SALES AND MANUFACTURING:

USA - Delaware
455 Corporate Blvd., Newark DE 19702 • Tel: +1-302-456-4400, Fax: +1-302-456-4444

USA - Oklahoma
2001 N. Indianwood Ave., Broken Arrow OK 74012 • Tel: +1-918-250-7200, Fax: +1-918-459-0165

USA - Pennsylvania
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WORLDWIDE SALES AND SERVICE LOCATIONS:

USA - Texas
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