

Icon Scientific ColourOpacity Analyser



ALL ICON PRODUCTS ARE...

Easy to use: with an intuitive glass touch-screen, wipe-clean graphic user interface with multi-language options.

Certified to global standards: ATEX, IECEx, ETL approved to give absolute confidence and peace of mind in hazardous areas and manufactured under an ISO9001:2008 certified Quality Management System.

Robust and fully explosion proof: no air or inert gas purging required for safe operation in explosion hazard areas.

Safety assured: with an alarm for internal sample leakage.

Flexible: with auto validation calibration options and standard modbus, 4-20mA and alarm contact outputs.

WHAT DOES IT DO?

The icon scientific Process ColourOpacity Analyser uses a dispersive spectrometer module to carry out colour, opacity and concentration measurement. It is designed to overcome the shortcomings of optical filter-based instruments, such as sensitivity losses due to bandpass width and the low transmission characteristics of fixed optical filters. The analyser can measure colour and opacity simultaneously, and can perform concentration measurements based on light absorption at single or multiple wavelengths.

A unique measuring instrument, the analyser is extremely versatile and can be readily re-programmed in the field. It provides accurate measurement on the many petroleum products that have colour as part of their specification. It can be used to duplicate a range of standard visual colour comparison tests dealing with light and dark samples. Delivering exceptional results, the analyser can enable you to measure contamination, purity or the clarity of a liquid. It is particularly good at detecting dye colour and product contamination in pipeline applications.

HOW DOES IT WORK?

The analyser uses visible light produced by a 12V 10W tungsten lamp running under reduced voltage to increase its life. Light passes out of the analyser enclosure through an optical window and moves along a fibre-optic cable to an external measuring cell. The light enters the cell through another window fitted

with a focusing lens. It then passes through the test sample and out via a further window and fibre-optic cable. It travels back into the enclosure to the dispersive spectrometer module, where the optical transmission or absorbance measurements are carried out. These measurements are fed into a control computer which calculates the final results.

WHY CHOOSE THE ICON SCIENTIFIC PROCESS COLOUR OPACITY ANALYSER?

Fibre optic cables: cables allow separation of the measuring cell and controller if required.

Standard SMA connectors: a range of third-party transmittance and reflectance-measuring cells can be used in addition to one of the standard icon transmittance cells.

Stability: to compensate for drift and dirt build-up on the cell windows, all measurements are carried out using one or more reference wavelengths.

Dual method analysis: The analyser can perform two simultaneous measurements as standard. These could be colour, opacity or concentration measurements.

"The icon scientific ColourOpacity Analyser is extremely versatile and may be readily re-application engineered by the user in the field. The use of a solid state spectrometer module avoids the band pass and transmission loss problems associated with optical filters and moving parts such as filter wheels and chopper motor assemblies".



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