TELEDYNE
ANALYTICAL INSTRUMENTS
Everywhereyoulook™

Model 6650SP

Fluorescence Probe for Oil-in-Water Analysis

The Model 6650 is comprised of a versatile transmitter and probe for monitoring oil-in-water in various refineries, power plants and offshore platforms. The system incorporates state-of-the-art electronics and a fiber optic based in-situ probe that detects oil-in-water.

The System

Technology

Detection of oil-in-water in process boilers, cooling towers, refineries and offshore platforms in an important measurement from an economic and environmental standpoint. This new technology makes this measurement simple and reduces the cost of ownership. The in-situ measurement capabilities also means that the analyzer offers real time analysis within a second

Transmitter

The 6650 uses a highly versatile transmitter that measures the signal from the probe and sends the signal back to the transmitter. This reading is based on the amount of optical attenuation from the fiber optic in-situ probe. The transmitter is compact and designed to connect to the probe via two fiber optic cables. A local digital display is provided and the transmitter offers a 4-20 mA output signal to other devices. In addition, the transmitter is equipped with automatic calibration checking. A reference filter is inserted into the measuring beam either locally or remotely to verify operation of the transmitter.

Fiber Optic Probe

The 6650 uses a fiber optic based, in-situ probe that monitors actual concentrations of oil-in-water using UV fluorescence technology. An automatic reactor is also offered as an option for cleaning the probe, depending upon the application.

Applications

- Pollution abatement programs involving effluent from refineries, chemical / petrochemical plants, oil fields, steel mills, automotive production, food processing and other industries
- Offshore drilling platforms, produced water, oil field water flooding, steam injection operations
- On-shore deballasting discharges and ballast treatment facilities
- Boiler return, feed-water, steam condensate, cooling water, leak detection
- Monitoring of airport runoff, municipal water treatment plants
- Wastewater and sewage treatment plants
- Process stream monitoring
- On-board shipping (fast analysis required <10 seconds)

Features

- Direct measurement; no interference from turbidity
- No spare part replacements required for 3 years
- Long life UV lamp
- Virtually no drift
- No inner filter error effects

Specifications

Transmitter	Measured Parameter:	Oil-in-Water
	Range of Measurement:	Application Dependent
	Temperature Range:	-40° to +122°F (-40° to +50°C)
	Response Time:	< 1 second
	Long Term Output Drift:	< 2% signal loss/year
	Repeatability:	1% of range
	Output Linearity:	Linear for given Scale Indexes
	Lamp:	LED (10 year min. life guarantee)
User Display & Control	Type of Display:	LED display
	Display Format:	3-1/2 digits in user defined engineering units
Electrical	Power Requirement:	24 VDC (9 - 32 VDC) if 110/220 VAC is available (optional AC / DC power supply)
	Power Consumption:	0.48 Watts
	Analog Outputs:	4-20 mA isolated
	Analog Loop Resistance:	500 Ohms, nominally at 24V
	Alarms:	Optional
	Area Classification:	Z-purge for Class I, Division 2 X-purge for Class I, Division 1
Mechanical	Transmitter Weight:	1.5 lbs (0.68 kg)
	Enclosure Construction:	Extruded aluminum (NEMA enclosures optional) 8"H x 3.88"W x 7.5"D (203.2 x 98.43 x 190.5 mm)
Probe	Materials:	316 SS or Hastelloy C
	Temperature Rating:	600°F (315.5°C)
	Pressure Rating:	10,000 PSIG
	Probe Options:	1. 6", 12" or 24" in length 2. Temperature controlled 3. Temperature thermistor 4. Pressure strain gauge

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EMAIL: ASK_TAI@TELEDYNE.COM

WEBSITE: WWW.TELEDYNE-AI.COM

16830 CHESTNUT STREET, CITY OF INDUSTRY, CA
UNITED STATES OF AMERICA (USA)
TEL: +1 888.789.8168

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