# TELEDYNE ANALYTICAL INSTRUMENTS



6650EXP explosion proof system

**Teledyne's 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.

Detection of oil-in-water in process boilers, cooling towers, refineries, and offshore platforms is an important measurement from an economic and environmental standpoint.

This new technology from Teledyne makes this measurement simple, and reduces the cost of ownership. Because of its in-situ measurement capabilities, the Model 6650 analyzer offers real time analysis within a second.

#### **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

## **MODEL** 6650

Flourescence Probe Oil-in-Water Analyzer

#### **Fiber Optic Probe**

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



#### Model 6650 Transmitter

Teledyne's 6650 uses a highly versatile transmitter that measures

the signal from our 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.

## Model 6650 Oil-In-Water Analyzer

#### **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-board shipping (fast analysis required <10 seconds)</li>
- On-shore deballasting discharges and ballast treatment facilities
- Boiler return, feedwater, steam condensate, cooling water, leak detection
- · Monitoring of airport runoff, municipal water treatment plants
- Wastewater and sewage treatment plants
- · Process stream monitoring

#### **SPECIFICATIONS**

#### **Transmitter**

Measured parameter: Oil - in - water

Range of measurement: Application dependent

Temperature range: -40 to +50° C

Response time: < 1 sec

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 @ 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

Enclosure construction: Extruded aluminum (NEMA

enclosures optional)

8" H x 3 - 7/8" W x 71 - 1/2" D

#### **Probe**

Materials: 316 SS or Hastelloy C

Temperature rating: 315.5° C (600° F)

Pressure rating: 10,000 psig

Probe options: 1. 6", 12" or 24" in length

2. Temperature controlled

3. Temperature thermistor

4. Pressure strain gauge

# TELEDYNE ANALYTICAL INSTRUMENTS

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#### Warranty

Instrument is warranted for 1 year against defects in material or workmanship

NOTE: Specifications and features will vary with application. The above are established and validated during design, but are not to be construed as test criteria for every product. All specifications and features are subject to change without notice.

