

MONITEK® MESSENGER

TRANSMITTER

TURBIDITY, SUSPENDED SOLIDS, COLOR



THE MONITEK® MESSENGER WAS DEVELOPED TO MEET THE NEEDS OF INDUSTRIAL AND MUNICIPAL APPLICATIONS FOR TURBIDITY, SUSPENDED SOLIDS AND COLOR MONITORING.

This transmitter has a number of features that sets it apart from other models available today. Cost control, communications and flexibility were all considered when developing this new generation of transmitter.

COST CONTROL

Most turbidity, concentration or color transmitters are capable of handling only one probe connected to them. In situations where a number of sensors are required, the cost of multiple transmitters can be high. The Messenger addresses this by allowing up to 4 inputs into one transmitter. All inputs are discrete, allowing control of the sensor and transmission of data on a completely individual basis. One transmitter controlling up to 4 sensors keeps the cost per data point very low. Also, the Messenger is available in 3 models- Panel PC with Touchscreen, Standard with 2 line LCD display or a model with no display.

COMMUNICATIONS

Today, communications between analytical devices and the data collection system is one of the driving factors in process control. The Messenger provides for a wide range of communications, including 4-20 mA, relay alarms, RS 232 to a computer, RS 485 Modbus protocols and integral data logging.

FLEXIBILITY

Our customers requested flexibility and the Messenger delivers. We provide flexibility in connecting sensors, reporting, displaying data, configuration and implementation.

Sensors for Turbidity, Concentration and Color can all be connected to a Messenger. One Messenger can handle any combination of sensors, with up to 4 sensor inputs. Each sensor is controlled independently. Data is displayed and outputted individually with different units of measurement including NTU, JTU, AU, Hazen, EBC, PPM , g/l, % Concentration and others.

Reporting can be done in various formats, including raw data to be output as bar or line graphs or histograms. Again, reporting is individualized for each sensor. The timing of reporting is also controlled for each sensor, allowing for process control or meeting regulatory requirements in one transmitter.

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Configurations include a Messenger without display and a Messenger with an LCD display with the programming / calibration of the system done via a PC, Laptop or handheld PDA using the menu driven software. A full Panel PC with a touchscreen for setup, data display and diagnostics for multi-sensor systems or single sensor configuration is also available.

Implementation can be a single Messenger on a single sensor, or can be a network of Messengers and sensors, all tied into one Messenger Panel PC that will handle reporting for all units tied into it. For use in hazardous areas, NEMA 7 or purged enclosures are available with no display or with LCD display configurations.

Beyond these general provisions for flexibility are some more specialized ones. An example of this is in the linkage of measurement results. Control of chemical dosing is important in waste treatment or in water plants. The Messenger can link incoming and post-dosage measurements to provide for more precise control of the chemical addition.

SETUP

The Messenger is simple to setup, with a graphical interface that facilitates this process. The software is the same whether the Messenger is a Panel PC version or one requiring a computer or PDA for setup. Each setup parameter has its own menu page allowing the user to work down the menu for each parameter; sensor selection, measurement units, display format, data logging frequency, cleaning frequency cycles etc. Typically, factory calibration of the sensor with the Messenger is done prior to shipment, using turbidity or color standards, making most installations quick and simple. If you prefer to have the calibration performed on your own sample, you can provide known concentrations to us and we will calibrate it to arrive in the field nearly ready for use. Additionally, a process calibration curve should be created for correlation to your application. For any parameter being setup, the Instruction Manual is available through the Help Function.

OPERATION

Data collected by the Messenger is continually transmitted. Each sensor has its own output, making data transmission simultaneous and independent. At the same time, the internal paperless datalogger is storing the same data with up to 8000 data points. This allows for easy evaluation and archiving of data. If at any time you need to change a parameter, such as frequency of reporting, the changes can be made from the touchscreen menu or the menu stored on the PDA or laptop.

TECHNICAL DATA

Operating temp:

-10°C to 50°C

Supply voltages:

90-260 VAC, 50-60 Hz

Power requirement:

Max. 50 VA

Power consumption:

< 30 Watts

Alarm relays:

Four Programmable (48V / 2A)

Reproducibility:

+/- 1%

Interface:

RS 232C / RS 485 Modbus

Analog out:

Up to Four 0/4 - 20mA (Isolated)

Enclosure:

NEMA 4X, IP65, Stainless Steel

Dimensions:

Blind Transmitter: 7.1"H x 6.3"W x 3.6"D

LCD Display: 7.1"H x 6.3"W x 4.5"D

Panel PC: 13.5"H x 11"W x 5.25"D