**PRODUCT INFORMATION**
PROCESS MEASUREMENT TECHNOLOGY
TURBIDITY
FILTERTRAK 660 SC


# FILTERTRAK 660 sc turbidimeter for ultraclean media

- **Faster response to changes in sample – early breakthrough detection**
- **Easy to calibrate – no external calibration service needed**
- **SC technology – up to eight different sensors at one controller**
- **Meets all USEPA filter monitoring requirements**

## Very fine resolution

The FILTERTRAK 660 sc Laser Nephelometer is designed specifically to detect changes in turbidity as low as 0.0005 NTU. Using advanced laser optics and signal processing, the instrument detects increased concentrations of submicron-sized particles that are a precursor to larger particles. This allows for early filter deterioration detection that meets or exceeds that of particle counters — all with the day-to-day convenience, simplicity, and reliability of a HACH LANGE turbidimeter.

Operators can detect impending filter breakthrough, delineate filter ripening, and maximize effective filter run time. The FILTERTRAK 660 sc sensor uses USEPA Method 10133 and meets all requirements for individual filter and combined effluent monitoring.

## The FILTERTRAK principle

Sample continuously flows into the FILTERTRAK through a bubble trap that removes entrained air and enters a central column where it rises into a measuring chamber. A 35 mW solid state laser diode projects a beam at 660 nm through the sample. This beam is highly collimated and monochromatic so that stray light is virtually eliminated. The light scattered by particles in the sample are collected at 90° to the beam and carried through an optical fiber to a remote detection system. The amount of light detected is directly proportional to the turbidity of the sample. The instrument calculates turbidity and reports the value in standard milli-Nephelometric Turbidity Units (mNTU).

## One controller for many sensors

The FILTERTRAK 660 sc can be used with the SC 100 or SC 1000 Digital Controllers. The SC 100 controller accepts up to two sensors. The SC 1000 accepts up to eight sensors. Multiple controllers can be networked to accommodate many more sensors and parameters, reducing the cost per measuring point.

## Plug and Play

Just plug in any HACH LANGE digital sensor and it's ready to use. Network the FILTERTRAK 660 sc Laser Nephelometer with any of HACH LANGE's digital sensors for measuring dissolved oxygen, pH, ORP, conductivity, and many other parameters like $SAC_{254}$ or nitrate.

## Communications and data logging

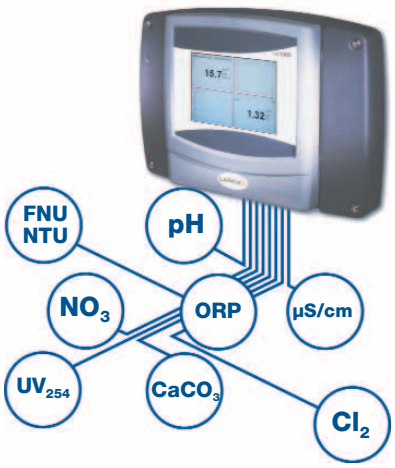
Optimise data management with flexible direct digital communication options including MODBUS, PROFIBUS DP, Lonworks protocols or 4-20 mA. Every SC 100 and SC 1000 controller may be equipped with wireless communication. A built-in data logger collects measurement data, calibration, verification points, and alarm history for up to six months. Data can be retrieved to a computer.

## Monitor, optimize, and report

The sensor meets all requirements for individual filter and combined effluent monitoring. This USEPA method compliance means that treatment plants with conventional or membrane filtration can monitor and optimise, as well as report, using this single technology. HACH LANGE also offers USEPA-approved STABL CAL Stabilised Formazin Standards that save time and labour by achieving accurate, low-level calibration with prepared standards.

## Applications

- → **Effluent monitoring**
- → **Drinking water**
- → **Ultraclean industrial process water**
- → **Filter management**
- → **Small particle sites detection (< 0,1 µm)**




The SC 1000 controller manages up to eight different sensors.

## Technical data

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| **Model no.** | LPV421 |
| **Measuring instrument** | Microprocessor-controlled bypass turbidity probe with self-diagnosis |
| **Measurement method** | 90 ° scatter light in conformity with USEPA 10133 (660 nm laser diode) |
| **Measuring range** | 0.001-5000 mNTU |
| **Resolution** | Within lowest range 0,001 mNTU, within highest range 1 mNTU |
| **Response time** | 6/30/60/90 sec programmable |
| **Calibration** | With STABL CAL Standards |
| **Sample requirement** | Min. 0.10 l/min, max. 0.75 l/min |
| **Sample temperature** | Max 50 °C |
| **Ambient temperature** | + 2 °C ... + 40 °C |
| **Protection class** | NEMA 4X/IP 66 |
| **Dimensions** | 40,6 cm x 30,5 cm x 25,4 cm (H x W x D) |
| **Weight** | 4,5 kg |
| **Maintenance** | 1.5 h/month |

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**HACH LANGE GMBH**
Willstätterstraße 11
D-40549 Düsseldorf
Tel. +49(0)2115288-0
Fax +49(0)2115288-143
info@hach-lange.de
www.hach-lange.com

**HACH LANGE LTD**
Pacific Way
Salford
Manchester, M50 1DL
Tel. +44 (0)161 872 14 87
Fax +44 (0)161 848 73 24
info@hach-lange.co.uk
www.hach-lange.co.uk