

PART 1 GENERAL

1.1 Section includes

- A. Sample preparation instrument. Suspended solids will be removed from the water using membrane modules.

1.2 Measurement Procedures

- A. Sample will be extracted, using peristaltic pumps, through membrane plates (modules). The filtrate is free of suspended solids to be used for further analysis.

1.3 Alternates

- A. Other sample preparation systems which do not deliver filtered sample continuously are not acceptable.
- B. Other sample preparation systems which cannot be placed outdoors are not acceptable.
- C. Other sample preparation systems which do not have a mechanical self-cleaning are not acceptable

1.4 System Description

- A. Performance Requirements
 - 1. Flow: approximately 900 mL/h (depending of pollution grade of membrane modules and hoses)
 - 2. Suitable for up to three process analyzers

1.5 Certifications

- A. CE approved

1.6 Environmental Requirements

- A. Operational Criteria
 - 1. Operating temperature -20 to 40 °C (-4 to 114 °F)
 - 2. Sample temperature: 5 to 40 °C (41 to 104 °F)
 - 3. Sample pH: 5 to 9
 - 4. Membrane immersion depth: 0.1 to 0.5 m (4 to 20 inch)
Module carrier (membranes) minimum 0.1 m (4 inch) removed from bottom of basin
Maximum vertical lift to control unit 3.0 m (10 feet)

1.7 Warranty

- A. The product includes a one-year warranty from date of shipment. (excluding wearparts)

1.8 Maintenance Service

- A. Scheduled maintenance:
 - 1. Weekly / Monthly: visual inspection, if necessary, clean membrane modules depending on application
 - 2. Quarterly: replacement of several wear parts

PART 2 PRODUCTS

2.1 Manufacturer

- A. Hach Company, Loveland, CO
 - 1. Filtrax system

2.2 Manufactured Unit

- A. The Filtrax consist out of a control unit which needs be installed along the basin, module carrier (including membrane modules) to be submerged in the water and (un-) heated sample hoses to cover distances between Filtrax system and analyzer(s).

2.3 Equipment

- A. The Filtrax system is a stand-alone system (AC powered). Two programmable relays are included to program warnings and errors.
- B. The control unit has a stainless steel housing suitable for outdoor installation.
- C. The module carrier is made of stainless steel and can be fully submerged.
- D. The heated sample hoses are suitable for outdoor installation.

2.4 Components

- A. Standard equipment:
 - 1. Control unit
 - Housing: stainless steel 1.4571
 - 2. Module carrier with 5m (16 feet) heated delivery hose (vacuum side)
 - Housing: stainless steel 1.4571
 - Delivery hose: outer material PVC
 - 3. Sample hose, different lengths available (pressure side)
 - Outer Material: PVC
 - 4. Manual
- B. Dimensions:
 - 1. Control unit: (W x H x D) 430 x 530 x 220 mm 16.9 x 10.9 x 8.7inches
 - 2. Module carrier: (W x H x D) 92 x 500 x 340 mm 3.6 x 19.7 x 13.4 inches
- C. Weight: 5.3 lbs. (2.4 kg)
 - 1. Control unit: 9.9 lbs (20 kg)
 - 2. Modul carrier: 19.8 lbs (9 kg)

2.5 Accessories

- A. Mounting sets for control unit
- B. Mounting sets for module carrier

PART 3 EXECUTION

3.1 Preparation

The control module must be mounted steady on side of the basin. Module carrier must be submerged between 100 and 500mm. And the space between the carrier and the bottom of the tank must be at least 100mm.

3.2 Installation

- A. Contractor will install the probe in strict accordance with the manufacturer's instructions and recommendation.
- B. Manufacturer's representative will include a half-day of start-up service by a factory-trained technician, if requested.
 - 1. Contractor will schedule a date and time for start-up.
 - 2. Contractor will require the following people to be present during the start-up procedure.
 - a. General contractor
 - b. Electrical contractor
 - c. Hach Company factory trained representative
 - d. Owner's personnel
 - e. Engineer

END OF SECTION