9586sc OXYGEN SCAVENGER ANALYZER

Applications

- Power

Simple to Integrate. Simple to Operate.

An integral part of the most complete water analytics system for the Power industry. Hach provides a broad range of product options designed to work together into flexible solutions to meet your unique needs. Hach's comprehensive approach saves you time on design, installation, training, maintenance, and operation.

Save Time on Design

A single design source and one product platform means you spend less time searching for design files or configuring components. Create and reuse your optimal design templates.

Accelerate Your Installation

One source, interchangeable components, a common user interface, and one support team make installation faster and less complicated. Quickly and easily transfer user settings between Oxygen Scavenger analyzers.

Reduce Training Complexity

A single platform minimizes time required to teach and learn product operations, getting new systems in use faster.

Simplify Maintenance and Operation

Common menu guides reduce variability and provide step-by-step procedures for maintenance and calibration. Standard visual alerts across parameters notify operators when troubleshooting is required. The Hach 9586sc Oxygen sensor has a fast response time of less than 60 seconds.

Unlike traditional amperometric techniques that use two electrodes, the Hach 9586sc Oxygen Scavenger Analyzer uses a three-electrode design; eliminating voltage drift due to the composition of the water. Self-cleaning electrodes reduce maintenance costs and analyzer downtime via Teflon® beads that prevent deposits on the electrode surfaces.

HACH®
Be Right™

Specifications*

Range	0 to 500 ppb hydrazine; programmable 0 to 100 ppb carbohydrazide; programmable
Repeatability	± 2 % or 1 ppb whichever is greater
Response Time T90	< 60 s
Lower Limit of Detection (LOD)	Drift is Negligible; 1 ppb
Calibration Method	a) Zero: electrically, with hydrazine-free water or with optional zero cartridge b) Slope: using a laboratory reference value (e.g. LCW025)
Operating Temperature Range	5 to 45 °C at 0 to 95% RH (non-condensing)
Sample Requirements	Sample needs to be free of undissolved matter.
Sample Temperature	5 to 45 °C
Pressure Limit	0.5 to 6 bar (7.2-87 psi) or 12 L/h
Flow	166 to 250 mL/min (10 to 15 L/h) recommended
Connection Drain Line	6 x 8 mm (Tubing must not exceed 4 feet and must drain straight down)
Connections	4 x 6 mm stainless steel tubing
Analogue Outputs	Two (Five with optional expansion module) 0/4 to 20 mA isolated current outputs, max 550 Ω , Accuracy: ±0.1% of FS (20mA) at 25°C, ±0.5% of FS over -20°C to 60°C range
Power Requirements (Voltage)	100 - 240 V AC, 24 V DC
Power Requirements (Hz)	50 - 60 Hz
Electrical Certifications	EMC CE compliant for conducted and radiated emissions: - CISPR 11 (Class A limits) - EMC Immunity EN 61326-1 (Industrial limits) Safety CAN/CSA C22.2 No. 61010-1 cETLus safety mark for: - General Locations per ANSI/UL 61010-1 & CAN/CSA C22.2. No. 61010-1
Enclosure Rating	NEMA 4X/IP66
Relays	Four electromechanical SPDT (Form C) contacts, 1200 W, 5 A
Maintenance Interval	Monthly: Calibration and reagent refill
Weight	32.15 lbs. (14.5824 kg)

**Subject to change without notice.*

Principle of Operation

The Hach 9586sc Analyzer continuously measures the amount of oxygen scavengers, dissolved hydrazine, and carbohydrazide in water. The measuring principle is based on the electrochemical method of 3-electrode amperometry.

A polarization voltage (+480 mV) is applied between a platinum anode (working electrode) and a stainless steel cathode (counter-electrode). The oxygen scavenger is oxidized at the surface of the working electrode and the resulting current is directly proportional to the oxygen scavenger concentration in the range of 0 to 500 ppb hydrazine.

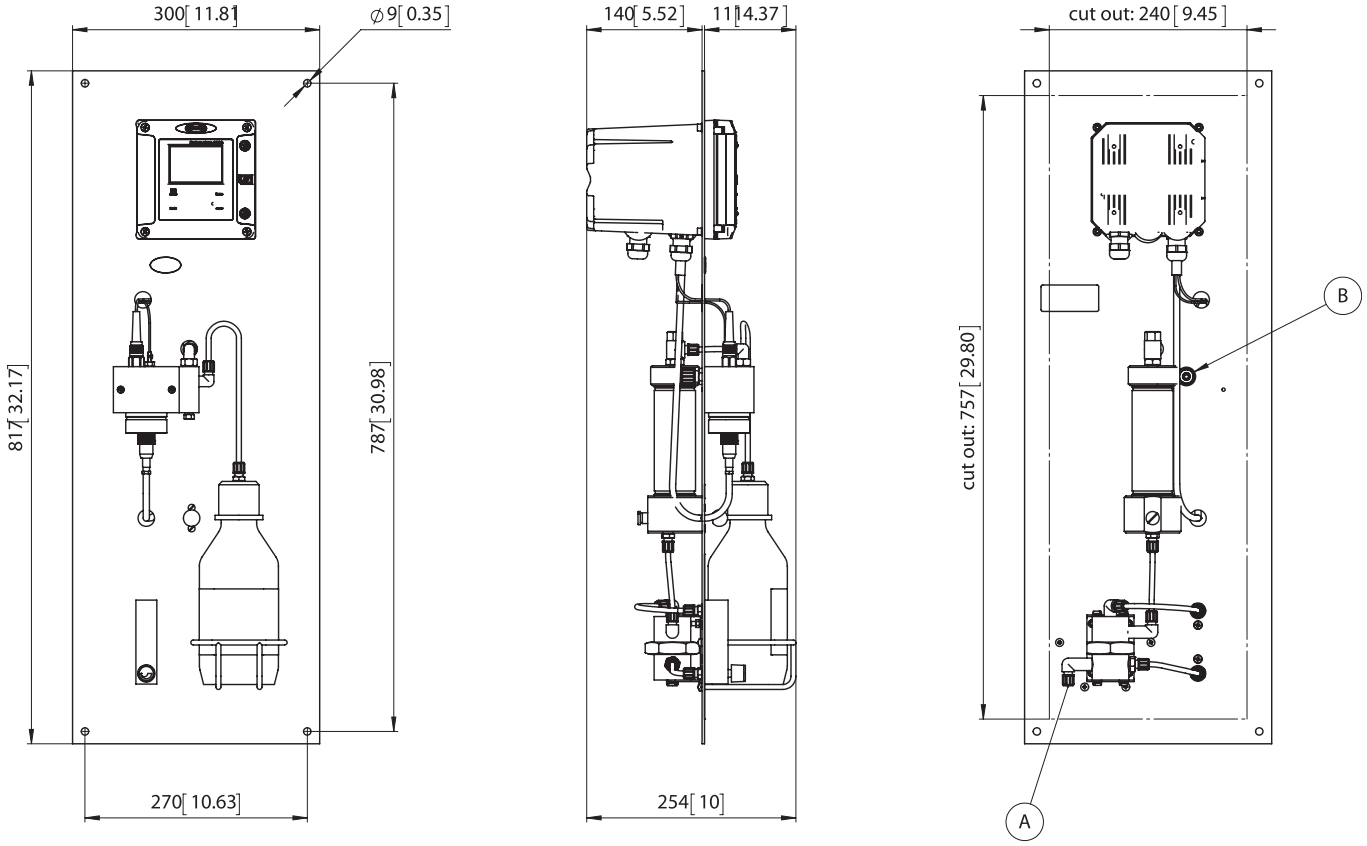
The reaction is enhanced in an alkaline environment, and the sample is conditioned before it enters the measuring cell. The sample is conditioned to pH □ 10.2 by adding diethylamine, monoethylamine, ammonia, or diisopropylamine through a Venturi tube. A sensor integrated to the measuring cell provides temperature compensation.

The chemical reaction is as follows:

$N_2H_4+4OH^- \rightarrow N_2+4H_2O+ 4e^-$

The anode-cathode potential is kept constant with respect to a third electrode (reference electrode, Ag/AgCl). This avoids interference effects resulting from variations in water composition that appear when using the 2-electrode system. At 480 mV, the cell current is linearly proportional to the hydrazine concentration

Dimensions



A: Sample inlet PE tube Ø4x6 mm orØ1/6"x1/4" (US version)
5° to 45°C (40° to 115°F), pressure 0.5 to 6 bar (7 to 90 PSI), flow 12L/h

B: Drain, tube Ø6x8 mm orØ1/4"x3/ 8" (US version), atmospheric pressure

All dimensions are in mm [inches]

Ordering Information

Complete Analyzer

9586.99.00P2	Hach 9586sc Oxygen Scavenger Analyzer, AC-DC
9586.99.01P2	Hach 9586sc Oxygen Scavenger Analyzer, Modbus, AC-DC
9586.99.03P2	Hach 9586sc Oxygen Scavenger Analyzer, Profibus, AC-DC
9586.99.05P2	Hach 9586sc Oxygen Scavenger Analyzer, HART, AC-DC

Communication and Module Options

9334600	4-20 mA Output Module (Provides 3 additional mA Outputs)
9013200	Modbus 232/485 Module
9173900	Profibus DP Module
9328100	HART Module
9525700	Analog pH/ORP Module for Polymetron Sensors
9525800	Analog Conductivity Module for Polymetron Sensors

Accessories and Consumables

2834453	Diisopropylamine, 99%, 1L
09186=C=0360	Oxygen Scavenger Reagents Cap Adapter
09186=A=8000	Spare Parts Kit for 9586 Analyzer
	Maintenance kit includes 6 filters, 1 reference electrode, 1 Venturi injection nozzle, 7 plastic beads, 2 meters of 4x 6mm PE tubing.

HACH COMPANY World Headquarters: Loveland, Colorado USA

United States: 800-227-4224 tel 970-669-2932 fax orders@hach.com
Outside United States: 970-669-3050 tel 970-461-3939 fax int@hach.com
hach.com

LIT2817
H13 Printed in U.S.A.

Be Right™