On-Line TOC Analysis Options

Aurora 1030 Accessories for On-Line TOC Analysis

- I/O Expansion Module provides 4–20 mA analog output signals and four relays for alarms
- I/O Expansion Module supports input to Supervisory Control and Data Acquisition (SCADA) system software
- Autocalibration/Stream Sequencer Module automates calibration and sampling from up to four separate process streams
- NEMA 4X Enclosure protects the Aurora 1030W TOC analyzer in harsh, non-laboratory conditions

The optional accessories available for the Aurora 1030 TOC analyzer support continuous on-line monitoring of one to four process streams for organic contaminant levels. Interfacing an Aurora 1030 TOC analyzer to a SCADA system allows facilities to adjust chemical usage and optimize water treatment processes.

Principal Applications

- SCADA system input
- Process and chemical usage optimization
- NPDES wastewater compliance monitoring
- Boiler water condensate

I/O Expansion Module

The I/O Expansion Module supports data acquisition using 4–20 mA analog signals. Four output signals and four relays for independent programmable alarms are built into the I/O Expansion Module.

Autocalibration/Stream Sequencer Module

The Autocalibration/Stream Sequencer Module is programmable to perform automatic calibrations and on-line random sampling from multiple streams for continuous monitoring of up to four process streams.

NEMA 4X Enclosure

The NEMA 4X Enclosure houses an Aurora 1030W wet oxidation analyzer for installation and on-line operation in non-laboratory environments. A positive pressure gas purge system prevents corrosive gases from contacting and damaging the instrument and associated electronic components. An optional vortex cooler is available for locations with temperatures above 30 °C (85 °F).

NEMA 4X Enclosure

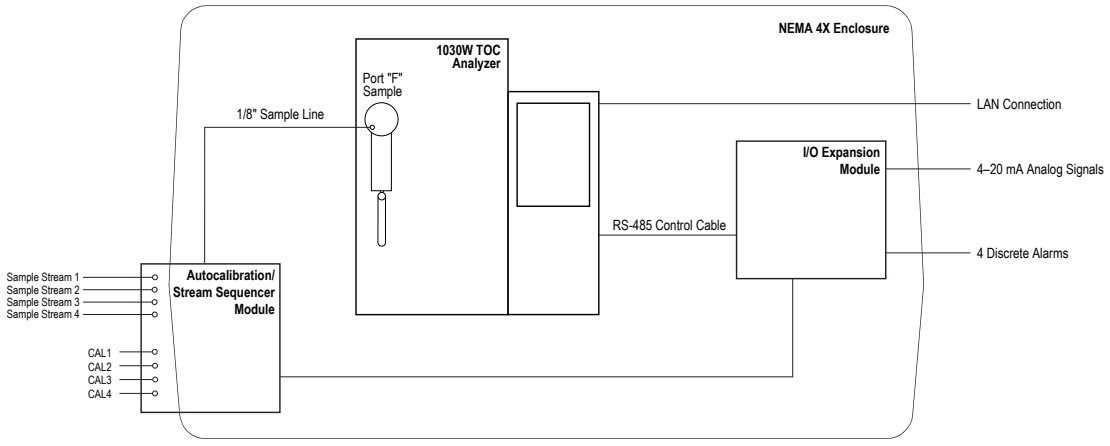
O·I·Analytical
A World of Solutions

Specifications

I/O Expansion Module	
Internal Communication	RS-485 cable from Model 1030 to I/O Expansion Module
External Communication	NEMA 4X CAT 5 cable to remote PC
Analog Outputs	User-selectable and independent for up to 4 streams: 4–20 mA, 0–1 V or 0–10 V
Alarm Relays	Programmable, potential free contact closure per stream; 12 A at 120 V_{AC} or 10 A at 28 V_{DC}
Autocalibration/Stream Sequencer Module	
Stream Selection/Sequencing	Solenoid actuated valves
Number of Streams	4
Calibration	1 to 4 point calibration per stream
Tubing Connections	1/8” Teflon tubing® with 1/4-28 compression fittings
Maximum Direct Inlet Pressure	3 psi
NEMA 4X Enclosure	
Protected Components	Aurora 1030W TOC Analyzer and I/O Expansion Module
Design	NEMA Type 4X; two piece fiberglass construction with instrument view port
Dimensions	43 cm H x 46 cm W x 61 cm D (17” H x 18” W x 24” D)
Weight	34.8 kg (76.8 lbs)
Installation	Unistrut® brackets for mounting
Gas Purge	Positive pressure with flow meter; up to 1 L/min
Vortex Cooling Option	For locations with temperatures above 30 °C (85 °F)
IP Rating	IP 66 (totally protected against dust; protected against strong jets of water)

NEMA 4X Enclosure Protecting an Aurora 1030W TOC Analyzer

Image and schematic of an Aurora 1030W TOC Analyzer inside the NEMA 4X Enclosure for continuous on-line monitoring of four process streams.



Teflon is a registered trademark of E.I. DuPont de Nemours, Inc.
Unistrut is a registered trademark of Unistrut Corporation.

Publication 23310906

O·I·Analytical PO Box 9010 College Station, Texas 77842 • Tel (800) 653-1711 • FAX (979) 690-0440 • www.oico.com • E-mail oimail@oico.com