



Product Highlights

Design concept

- The LFE TOC-810 was designed purely as a process TOC analyzer backed by over 30 years of experience. LFE process TOC analyzers are **not** modified laboratory instruments.
- Emphasis on high quality components, many of which are of LFE design, optimized for TOC use
- Emphasis on high reliability and low maintenance for lowest possible Total Cost of Ownership
- The design goal of ease of component access is seen in every aspect of the instrument

Easy maintenance

- Advantageous placement of components requiring periodic maintenance
- Easy access to components with minimal need for tools
- Design details facilitate access to- and replacement of HT reactor

2 Part System

Main cabinet

- Purgeable electronics cabinet section enhancing long term reliability in adverse environments
- Wetted components in lower cabinet section

ASM unit

- Wall mounted panel for acidifier-/sparger-/multiplex components offers easy maintenance access
- Particularly "messy" components and those with somewhat higher maintenance requirements are situated outside of main cabinet.

Ease of operation

- Intuitive user interface
The TOC-810 is surprisingly simple to operate despite its inherent complexity.
- Self-monitoring system with highly comprehensive diagnostics
The system status is available as floating relay-contacts and is displayed on the LC-display in plain text with the date & time of occurrence.



Highly reliable and stable TOC analysis

Continuous analysis

- High-temperature combustion method at typically 950°C guaranteeing nearly 100% conversion of all organic carbon-compounds for subsequent NDIR analysis of evolved CO₂

Extraordinarily stable measuring performance

- Low-maintenance, high-precision metering pump (LFE design)
- LFE's specially modified version of the premium BINOS® NDIR-photometer system (Emerson Process)
Among other modifications the photometer is fitted with a corrosion resistant glass analysis cell specially developed by LFE.
- The extreme long-term stability of the NDIR-photometer is further enhanced by its unique gain controller.

Outstanding reactor service-life

- The dimensioning of the analytical parameters allows maximum possible reactor service-life in combination with the fastest possible response time.

Reactor furnace module

- The service life of the furnace has never been an issue with LFE's TOC analyzers due to the use of a low voltage heater (15V). This also enhances the safety aspects of the system.

Instrument Interface - Signal Output

- 2 (optionally expandable to 6) configurable, isolated 0(4)-20mA analog outputs.
The configured measuring ranges or even peripheral system values (e.g. reactor pressure for monitoring the condition of the reactor tube for build-up of contaminants) can be distributed among the analog outputs.
- Digital outputs (instrument status; standard)
3 relay contacts (Instrument Fault, Maintenance Required & Maintenance)
- Digital I/O (optional)
Digital inputs
- 8 configurable inputs
Sample stream selection, calibration solution selection, initiation and cancellation of AutoCal
Digital outputs
- 7 configurable outputs (relay contacts)
thresholds, feedback as to sample stream, calibration solution and AutoCal etc.



Optional VOC- (Volatile Organic Carbon) analysis package

- Simultaneous and continuous analysis of VOC level, independent of dissolved-/particulate carbon analysis
- Detailed engineering solutions enhancing stability and reliability
- Extremely low maintenance
No requirement for CO₂-scrubber due to differential CO₂-analysis.
- Stabilization of analysis against varying background TIC levels.