

# Syft Mudlogger

The ultimate instrument for hydrocarbon analysis of mud gas

## Key Benefits

Instantaneous identification and quantitation of C<sub>1</sub> to C<sub>12</sub> hydrocarbons, aromatic hydrocarbons, and other volatile organic compounds (VOCs)

Differentiation between linear and branched alkanes

Fast time resolution (less than 15 seconds per analysis)

Wide measuring range

No gas drying or preparation necessary

Greatly reduced calibration requirements compared to other technologies

Designed and engineered for easy integration with existing mudlogging infrastructure



## Specifications

### ANALYSIS CAPABILITY

- Direct, broad spectrum hydrocarbon analysis of mud gas
- Real-time quantitative analysis for high-penetration-rate drilling applications
- Integrates data directly with WITS and Modbus protocols

### PERFORMANCE

- Start-up time: 10 minutes
- Mass resolution: unit mass resolution throughout the mass range
- Measuring range: 250 ppbv – 50% (with in-line dilution)
- Linear range: 6 orders of magnitude
- Dynamic range: 6 orders of magnitude

### SAMPLE INTRODUCTION

- Headspace from the mud trap introduced into the instrument through the gas dilution inlet

### SYSTEM AUTOMATION

- Stand-alone operation without additional PC
- Unattended operation
- Simple operation via touchscreen interface
- Fully automated daily validation cycle for data quality assurance
- Comprehensive on-board hardware and software to self-monitor performance

### CONSUMABLES

- Carrier gas: nitrogen (purity >99.995%; gas purifier mandatory for removal of trace organics and residual water). Operate from a nitrogen generator for truly stand-alone operation
- Reagent ion source: water
- Validation standard
- Calibration standard (hydrocarbons)

## DATA OUTPUT FORMATS

- WITS
- Modbus
- Live data streaming via TCP/IP Ethernet port
- Syft native XML format (used by LabSyft software)
- Generic spreadsheet format (CSV)
- Customized integration

## ENVIRONMENTAL CONDITIONS

- Ambient operating temperature: 10°C to 30°C (40°C with optional cooling module)
- Ambient operating humidity: 5 to 95%
- Storage extremes: -40°C to 65°C

## INTERFACES

- TFT color 8.4" LCD touch screen
- Online control for use in remote sites and rapid expert support
- 10/100 Ethernet (TCP/IP)

## PHYSICAL PROPERTIES

- Height: 900 mm (35.4 in.)
- Width: 725 mm (28.5 in.)
- Depth: 875 mm (34.5 in.)
- Weight: 212 kg (466 lb)

## OPERATING PARAMETERS

- Power: 200-264 VAC, 47-63 Hz, 1.7 kVA
- Carrier gas consumption: Nitrogen 180 sccm
- Standard sample inlet flow: 20 sccm

## SAFETY CONFORMANCE

- IEC61010-1
- EN61010-1

## ELECTROMAGNETIC CONFORMANCE

- EN61326
- CISPR 11/EN 55011: Group 1, Class A

## OPTIONAL ACCESSORIES

- LabSyft software package (powerful data viewing, handling and interpretation modules; advanced method development; device integration; batch handling)
- Cooling module for warm climates (extends operation to 40°C)
- Custom integration with mud gas system

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