

## Mercury Monitoring System for Natural Gas UT-3000 NG mobile

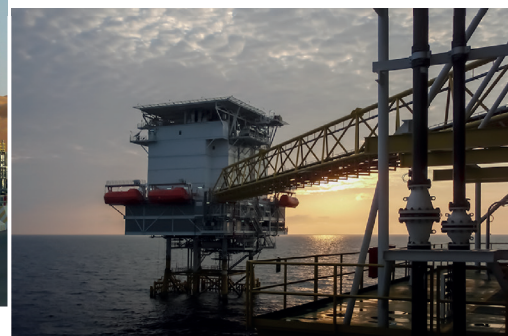
### NATURAL GAS SYSTEMS

The UT-3000 NG mobile is an easily transportable mercury monitoring system for natural gas.

It is specifically designed to measure ultratrace amounts of mercury at differing sampling points. The system, for example, thus allows to monitor the efficiency of different Mercury Removal Units (MRUs) in natural gas processing plants.

#### MAIN APPLICATIONS

- Natural gas exploitation
- Natural gas processing plants
- Natural gas platforms



#### SPECIFIC FEATURES

- Automatic and continuous measurement
- Fast and reliable results
- Detects elemental and bound mercury
- AutoRange Function
- Rigid and sturdy cabinet with wheels for easy transport
- Manual calibration unit (CalSet) included
- Increased safety: gas alarm



UT-3000 NG mobile: gas alarm



Manual calibration unit for the UT-3000 NG mobile

## TECHNICAL SPECIFICATIONS

### System

Weight:	approx. 50 kg
Dimensions (W x H x D):	72 x 78 x 78 cm
Power supply:	230 V AC / Hz or 110 V AC / 60 Hz
Power consumption:	425 VA (UT-3000: 250 VA max) (NG Sampling System: 175 VA)
Gas alarm:	<ul style="list-style-type: none"> <li>• Pre-alarm: Methane &gt;1%</li> <li>• Main alarm: Methane &gt;2.5 %</li> </ul>
Operating temperature:	0 °C to 40 °C
Operating humidity	max. approx. 90 % R. H., no condensing humidity
CE approval:	according to 89/336 and 73/23 EEC

### UT-3000 Ultratracer

Measuring component:	Total Gaseous Mercury (TGM)
Measuring principle:	Amalgamation technique (GoldTrap), cold vapor atomic absorption (CVAAS), wavelength: 253,7 nm
UV-source	Electrodeless low-pressure mercury lamp (EDL)
AutoRange function:	Automatic control of sample volume
Measuring ranges:	<ul style="list-style-type: none"> <li>• lowest range: 0.1 ng/m<sup>3</sup>- 1000 ng/m<sup>3</sup>, (at 10 l sample gas volume)</li> <li>• medium range: 1 ng/m<sup>3</sup>- 10 000 ng/m<sup>3</sup>, (at 1 l sample gas volume)</li> <li>• screening mode: 10 ng/m<sup>3</sup>- 100 000 ng/m<sup>3</sup>, (at 0.1 l sample gas volume)</li> </ul>

Detection limit according to DIN 32645:	1 pg absolutely or 0.1 ng/m <sup>3</sup>
Linearity over the 0.2 to 15000 ng/m <sup>3</sup> range:	1.5% or better
Reproducibility:	5% or better at 14 pg Hg; 1% or better at 1500 pg Hg
Sampling flow:	40 l/h
Gold Trap heating flow:	10 l/h
Data logger capacity:	5000 data sets
Signal outputs:	<ul style="list-style-type: none"> <li>• analogue: 4-20 mA</li> <li>• serial: RS 232</li> </ul>

### NG Sampling System (NGSS)

Particle filter:	1 micron stainless steel T-Filter
Max. sample inlet pressure:	approx. 200 bar
Pressure P1: (secondary side of pressure regulator):	0.0 - 1.0 bar (0.28 bar typically)
Flow 1 and Flow 2:	0 ... 5 l/min
Materials used:	<ul style="list-style-type: none"> <li>• Stainless steel (partially coated)</li> <li>• Viton</li> <li>• Ismaprene</li> </ul>

## SYSTEM COMPONENTS

The System comprises the well proven photometer unit UT-3000 Ultratracer and the Natural Gas Sampling System NGSS 3000 for sample conditioning.



UT-3000 NG mobile component:  
Mercury Ultratracer UT-3000


UT-3000 NG mobile component:  
Natural Gas  
Sampling System  
NGSS 3000



## OPTIONS

The specific setup of the UT-3000 NG mobile is strongly dependent on the specific demands of our customers.

Among the most common requests for modification are:

- Ex certified cabinets for hazardous zones 1 and 2. 
- Automatic calibration unit



UT-3000 NG mobile with automatic  
calibration unit and Ex certified housing

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