

# AUER/MSA Toximeter™ II

## Electronically controlled, automatic Detector Tube and Sampling Pump



**The Ultimate in Versatility and Performance**



### General Remarks

In order to assess the hazards from chemical substances or compounds in the workplace, in the environment, during Haz Mat remediation measures, etc., they must be detected and measured.

A number of measuring technologies have been developed for these tasks. Some result in immediate indications at the measuring site with little effort (i. e. measurement with detector tubes or electronic indicators), others are based on taking a sample at the site (i. e. with sample collection tubes) and a subsequent laboratory analysis.

The battery powered, electronically controlled, Ex-protected/intrinsically safe Toximeter II Pump is perfect for these different measuring tasks.

The Toximeter II Pump can be used for:

- measurement with detector tubes
- collection of samples with sampling tubes (sampling time or volume can be preset by the user)
- collection of samples using sample bags and impingers
- generating smoke with smoke tubes or cartridges.

### Construction

The Toximeter II unit consists of

- **a pump assembly with:**
  - membrane pump
  - differential pressure sensor to regulate volume
  - two tube receptacles
- **pump inlet** – marked with a white arrow

**pump outlet** – marked with a blue arrow

- digital alpha-numeric display to indicate the main and sub-menus and present operating condition
- two pushbutton switches (yellow/black) to operate the instrument
- fixture to break off tips of detector, sampling, and smoke generating tubes
- two LEDs and acoustic signal transmitter
- **Rechargeable battery pack with:**
  - 3 NiCd cells
  - charging jack/contacts
  - quick disconnect lever
  - claw/bolt coupling

## Function

### Detector tube pump

The Toximeter II is a continuously operating, electronically controlled detector tube pump. The "stroke volume" (electronic stroke  $100 \pm 5$  ml) is regulated by a temperature-compensated differential pressure sensor.

The instrument is operated by using main and sub-menus activated by two push buttons and indicated on an LCD.

For increased accuracy, the calibration factor "F" is utilized.

This calibration factor and the number of pump strokes can be easily preset prior to the start of measurement.

The presently available wide range of MSA/AUER detector tubes can be used without restrictions. See data sheet 08-00-02.

### Sampling pump with absorption tubes

Sampling tubes are used only on the inlet side (constant flow approx. 0.3 LPM). Either a specific sampling time or sampling volume can be preset for the sampling operation.

### Additional functions

Designed for using smoke generating tubes or gas sample bags.

Menus are available for a leakage check and the selection of the display language (English, Spanish, French, German, Dutch, Italian, Swedish or Danish).

A complete description of the various applications in which the Toximeter II can be used, as well as its operation, are found in the instructions for use.

## Benefits

- Multifunctional use in varied measurement tasks
- high accuracy measurement and sampling through electronic control
- simple two button operation
- simple menu-assisted operation
- certified for use in potentially explosive atmospheres
- impact resistant
- multiple functions reduce the cost of measuring many different hazardous substances
- battery pack can be changed in hazardous areas
- multi lingual menu facilitates user interface and operation.

## Technical Data

Dimensions: Height: 194 mm  
Width: 72 mm  
Depth: 33 mm

Weight: 580 g

Pump principle: Electronically regulated membrane pump. Electronic control of the "stroke volume" by differential pressure measurement across a fixed flow resistor

Adjustments: Main menu and sub-menus are selected by two push button switches (yellow/black)

Application: For detector tubes, sample collection tubes, smoke generating tubes, impinger and gas collection bags

Power supply: Intrinsically safe rechargeable battery pack, changeable without tools in hazardous areas

Service life: Approx. 300 charging cycles

Filter system in tube receptacles: PTFE membrane and stainless steel sieves, inlet and outlet side

Operating time: Approx. 8 hours

### Ambient conditions:

Temperature:  $-10$  to  $+50$  °C  
Pressure: max.  $\pm 200$  mbar from ambient

### Protection class:

IP 54

### Ex protection:

EEx ia IIC T4, EEx ia I  
intrinsic safety approval. Other approvals pending

### Accuracy:

See instructions for use of appropriate detector tubes

### Housing:

Antistatic, impact resistant plastic

### Signal transmitter:

Visual by 2 LED's, acoustic by piezo buzzer

### Menu, status and function display:

LCD with 8 selectable languages

### Fault recognition/status display diagnostics:

Low battery (flashing battery symbol)  
Battery empty (pump turns off)  
Flow block

### Automatic shut off:

After 10 minutes, but not at the end of a measurement

## Ordering information

655585 AUER/MSA Toximeter™ II (less charger)  
655779 Battery pack (with charging jack / contact)  
655781 Leather carrying case  
494716 OMEGA charger, 110 Volts

495965 OMEGA charger, 220 Volts  
655780 Sampling line, 13 ft (4 m)  
655782 Sampling line adapter TX2  
655777 Filter set, TX2  
Subject to change without notice



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**Note:** This Data Sheet contains only a general description of certain AUER/MSA products. While some uses and performance capabilities are described, under no circumstances should the products be used except by qualified, trained personnel and not until the instructions, labels or other literature accompanying them have been carefully read and understood and the precautions therein set forth followed. Only they contain the detailed information concerning these products.

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