



MSA Toximeter® II

[Electronically controlled
detector tube pump]

[General Remarks]

To assess the hazard from chemical substances or compounds in the atmosphere they must be detected and measured.

This can be at the workplace, during fire fighting, in the environment, in closed rooms, during Haz Mat remediation measures etc.

A number of measuring technologies have been developed for this task. Some provide immediate indications at the measuring site, with little effort, [e.g. the measurement with detector tubes or electronic indicators].

Others are based on taking a sample at the site [e.g. with sample collection tubes] with subsequent laboratory analysis.

The battery powered Toximeter II with an electronically controlled pump and Ex certification, is suitable for all these different measuring tasks.

It can be used for:

- measurements with detector tubes
- collection of samples with sampling tubes [sampling time or volume can be preset]
- collection of samples using sample bags/gas-washing bottles
- generating smoke with smoke tubes or cartridges.

[Construction]

The Toximeter II consists of

a pump assembly with:

- membrane pump
- differential pressure sensor to regulate the flow volume
- two tube receptacles
[**pump inlet** – marked with a white arrow and **pump outlet** – marked with a blue arrow]
- menus and operation status viewable on an LCD
- two pushbutton switches [yellow/black] to operate the instrument
- fixture to break off tips of detector, sampling and smoke generating tubes
- two LED's and an audible alarm

replaceable 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 ± 5 ml] is regulated by a temperature-compensated differential pressure sensor.

All functions of the Toximeter II are controlled by two push buttons and menus displayed on a LCD.

Detector or sampling tubes are inserted on the inlet side and smoke generating tubes are inserted on the outlet.

For increased accuracy a calibration factor must be used.

This calibration factor and the number of pump strokes are set with the appropriate menus prior to the start of the measurement.

The complete range of available MSA detector tubes can be used without any restrictions. Further information is contained in the detector tube instructions for use and on the detector tube package.

Sampling pump

Sampling tubes are used only on the inlet side [constant flow approx. 0,3 LPM]. Either a sampling time or sampling volume can be preset for the sampling operation. Sampling with gas-washing bottles always uses the inlet side.

Additional functions

For the use of smoke generating tubes and collecting samples with a gas bag the outlet side of the pump is always used.

Menus are available for leak checking and language selection.

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

[Benefits]

- multifunctional use in varied measurement tasks and technologies
- high accuracy of measurement and sampling operation through electronic control
- simple, easy to use menu assisted operation
- certified for use in potentially explosive atmospheres
- multiple functions reduce the cost of measuring hazardous substances
- battery pack replaceable in the hazardous area

[Technical Data]

Dimensions:	194 x 72 x 33 mm [H x W x D]
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 battery pack, type NC 1600, changeable without tools in the hazardous area
Charging time:	approx. 3.5 h with MSA DELTA charger approx. 7 h with MSA OMEGA II charger approx. 10 h with MSA OMEGA charger
Service life:	approx. 300 charging cycles
Useable time:	approx. 8 h
Filter system in tube receptacles:	PTFE membrane and stainless steel sieves, inlet and outlet side
Ambient conditions:	temperature: -10 to $+50$ °C pressure: max. ± 200 mbar from ambient
Ingress protection:	IP 54
Ex protection:	II 2G EEx ia IIC T4; DMT 02 ATEX E 077; I M1 EEx ia I
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:	charge battery [flashing battery symbol] Battery “empty” [pump turns off] no flow [shown on display and visually – pump does not turn off]
Automatic switch off:	after 10 minutes, but not at the end of a measurement

[Ordering Information]

D5142705	MSA Toximeter II [without charger]
D6172760	DELTA charger
D6170703	OMEGA charger
D6170724	OMEGA II charger
D6172755	Battery pack 1600 NC [with charging jack/contact]
D6079123	Leather carrying case
D5146705	Sampling line [4 m]
D5142707	Sampling line adapter TX2
D5142706	Filter set TX2

Your direct contact:

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ID 08-613.2 GB/3./1/04.06/HH