

PRODUCT BROCHURE

MAX300-TGM™

Real-time, toxic gas monitor utilizing powerful quadrupole mass spectrometry technology



**Fast measurement
with high sensitivity**

**Multi-chemical /
Multi-sample point**

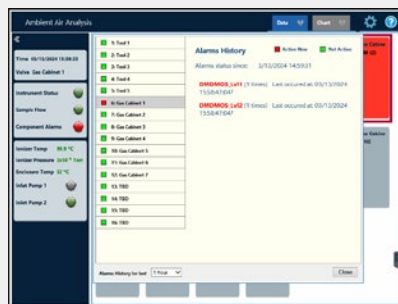
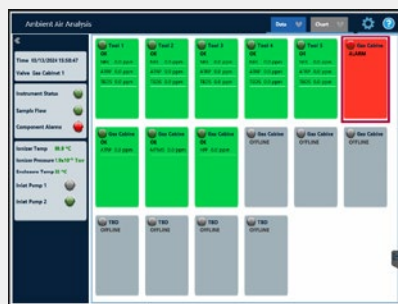
Stable and Accurate

- Toxic Gas Monitoring
- Ventilated Enclosure Leaks
- Process Tool Leaks

Applications

- Operator Breathing Zones
- Gas and Chemical Storage
- Valve Manifold Boxes (VMBs)
- Process Tools
- Gas Cabinets
- Exhausted Enclosures

Features	Benefits
Detect more than 15 chemicals on up to 46 sample points	The MAX300-TGM can analyze up to 64 chemical species at any single point. The combination of 15 chemicals measured at 46 sampling point provides the owner with maximum efficiency and extremely low cost-per-chemical, per point solution for monitoring.
Fast measurement	With an analysis speed of 0.4 seconds per chemical, the MAX300-TGM provides real time monitoring - <u>meeting or exceeding industry requirements for continuous monitoring.</u>
Interference-free	Eliminate interferences and false positives with the high sensitivity of quadrupole mass spectrometer technology.
Versatile and configurable	The MAX300 platform of analyzers is designed to be user configurable. Fully customizable to meet site requirements: <ul style="list-style-type: none"> - Order of sample points - Frequency of sample points - Alarm Levels (Warning and Alarm) - Enabling or disabling sample points - Addition or removal of chemicals - Addition or removal of sample points - Field upgradeable to 46 sample points
Low cost of ownership and streamlined operation	Centralized gas monitoring solution that provides full facility monitoring for reduced complexity
Designed for maintenance	Simplified maintenance routines include modularized plug-and-play components to maximize uptime. <ul style="list-style-type: none"> • Automated performance checks during operation • Plug-and-play critical modules to reduce downtime • Pre-defined preventative maintenance schedule
Redundancy provides >99% uptime	Critical components are designed with redundancy: <ul style="list-style-type: none"> • Sample pumps • Secondary ionizer filament • Alarm Verifications
Intuitive, user-friendly software platform	Software configured for straightforward integration into facility management systems and designed with toxic gas monitoring in mind: <ul style="list-style-type: none"> • Configurable results display • At-a-glance alarm indications for Level 1 and Level 2 conditions • "Revisit" sample points in alarm while continuing monitoring sequence • Alarms are easily integrated into facility management systems • Remote access capable



Questor5 Software Displays

Left – Alarm Level 2 (red) on Questor5 user interface

Right – One touch for additional information on Alarm Level 2

Partial List of Detectable Gases*

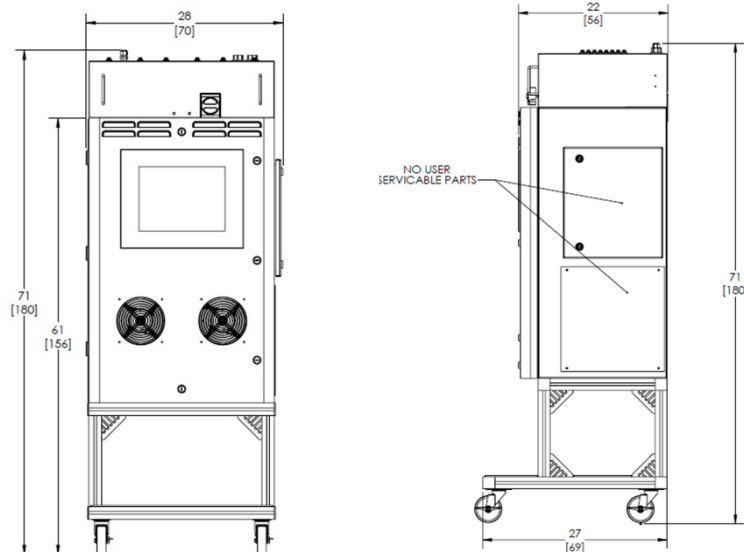
Gas Name	Formula	CAS Number	Lower Detection Limit (ppm)
1,1,1,5,5,5 – Hexafluoropentane-2,4-dione	C5H2F6O2	1522-22-1	0.6
1,3,3,4,4,5,5 – Heptafluorocyclopentene	C5HF7	1892-03-1	0.02
Acetonitrile	CH3CN	70-05-8	0.25
Acetylene	C2H2	74-86-2	10
Benzene	C6H6	71-43-2	0.02
Carbon Tetrachloride	CCl4	56-23-5	0.03
Carbonyl Sulfide	COS	46358-1	0.015
Chlorine	Cl2	7782-50-5	0.06
Dichloromethane	CH2Cl2	75-09-2	0.1
Difluoromethane	CH2F2	75-10-5	0.06
Dimethoxydimethylsilane (DMDMOS)	Si(OCH3)2(CH3)2	1112-39-6	0.2
Ethane	CH3CH3	74-84-0	50
Ethylene	CH2CH2	74-85-1	40
Ethylene Dichloride (EDC)	ClCH2CH2Cl	107-06-2	0.02
Fluoromethane	CH2F	593-53-3	40
Germane	GeH4	7782-65-2	0.05
Hexafluoro 1,3-Butadiene	C4F6	685-63-2	0.06
Hydrogen	H2	1333-74-0	200
Methane	CH4	74-82-8	20
Methanol	CH3OH	67-56-1	100
Methoxytrimethylsilane	C4H12OSi	1825-61-2	0.075
Methyl Chloride (MeCl)	CH3Cl	74-87-3	0.030
Methyl Silane	CH6Si	992-94-9	2.5
Nitric Oxide	NO	10102-43-9	20
Nitrogen Trifluoride	NF3	7783-54-2	0.03
Octafluorocyclopentane	C5F8	559-40-0	0.03
Propylene	C3H6	115-07-1	10
Tetraethylorthosilicate (TEOS)	SiC8H20O4	78-10-4	2.5
Tetramethylsilane	C2H12Si	75-76-3	0.03
Toluene	C6H5CH3	108-88-3	0.02
Trimethoxymethylsilane	C4H12O3Si	1185-55-3	0.175
Trimethylsilane	C3H10Si	993-07-7	0.1
Vinyl Chloride Monomer (VCM)	C2H3Cl	75-01-4	0.03
Xylene	C8H10	1330-20-7	0.3
α – Terpinene	C10H16	99-86-5	0.5

*Other gases available upon request

Specifications

Analyzer Performance	
Operating range:	See List of Detectable Gases
Detection limits:	See List of Detectable Gases for LDLs
Detection range:	10 ppb* to 100%
Speed of analysis:	<0.4 seconds per chemical
Speed of response:	<3 sec
Gas Handling System and Conditions	
Sample line:	¼" O.D. with 0.18" I.D PTFE tubing
Sample line connections:	Push
Inlet pressure:	Ambient
Sample flow rate:	~85 L/m
Sample line length:	~400 ft (121.9 m) (Recommended)
Analyzer flow rate:	~10 µl/m
Transit time:	19-32 seconds
Exhaust line connection:	½" (12.7 mm) compression type fitting ½" (12.7 mm) O.D. with 3/8" (9.5 mm) I.D.
Dimensions, Weight and Conditions	
H x W x D:	70.4 x 27.7 x 28.9 in (1789 x 704 x 734 cm)
Weight:	480 lbs (218 kg)
Operating conditions:	Max: 80°F (27°C) - non-condensing atmosphere Min: 55°F (13°C) - non-condensing atmosphere Variation should be less than +/- 5°F (2.78°C)
Storage conditions:	(-4)°F to 140°F (-20°C to 60°C)
Electrical and Interfaces	
Power requirements:	115V (+/- 10%) VAC, 50/60 Hz, single phase, one 20 amp circuit 230 (+/- 10%) VAC, 50/60 Hz, single phase, one 20 amp circuit
Power consumption:	Nominal 1600 Watt
Signal output:	Ethernet Modbus TCP/IP standard, 4-20mA optional
User interface:	15" (38.1 cm) touch screen, UBS 2.0
Login security levels:	Administrator, Viewer
Data storage:	Internal
Certification:	CE Compliant, UL 61010-1

*Refer to List of Detectable Gases for available gases and LDLs. If your chemical of interest is not on the list, inquire with your regional sales manager.



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