



FM-9NGAS-2, FM-9NGAS-3, FM-9NGAS-6S

# Noble Gas Air/Stack Monitor or Leak Detector Argon – Xenon – Krypton

## Model Series - FM-9NGAS

FM-9XE-NG, FM-9NGAS-2, FM-9NGAS-3,  
FM-9NGAS-6S, FM-9NGAS-10S,  
FM-9XE-NGL (Leak Detector)



Electronics, FM-9XE-NG and FM-9XE-NGL

## Features

- Digital Noble Gas Monitor
- Detects Noble Gases, Betas, & Positron Emitters
- Installed, Bench Top, or Cart Mounted
- Six-Digit Readout
- Airborne Concentration and Total Dose in Bq/l or in MPC (or Any Units)
- User Friendly
- Settable Alarms
- Computer Interface USB or Ethernet
- Data Archive and Data Retrieval
- GM Probe or Scintillation Probe for Low Levels
- Leak Detector - **FM-9XE-NGL**
- Cart Mounted - **FM-9XE-NGL**



FM-9XE-NG  
Flow Cell and Detector Assembly

## Application

The **FM-9NGAS** Monitor is fast becoming the first choice for Noble Gas measurement in facilities all over the world. FM-9NGAS-10S can use one detector as a background compensation detector.

- Air, Stack, Room, Leak
- Industrial Uses
- Nuclear Power Plants
- Laboratories



## TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISIONS OF



USNUCLEARCORP

OTCQB-UCLC

# Noble Gas Air/Stack Monitor Argon – Xenon – Krypton

## Model Series - FM-9NGAS

FM-9XE-NG, FM-9NGAS-2, FM-9NGAS-3, FM-9NGAS-6S, FM-9NGAS-10S, FM-9XE-NGL (Leak Detector)

### Description

The **FM-9NGAS** series Noble Gas Monitors determines Noble gas content of air by drawing the air through a gas chamber which is under constant surveillance by a radiation detector.

A six-foot outlet and inlet hose draws air from the use area, duct, stack, glove box, hood or filter trap and a wand is used with the FM-9XE-NGL Leak Detector.

All data is recorded on internal memory. Data archive and retrieval is available via USB or Ethernet Port.

An alarm is both visual and audio with a red flashing light and/or 2,000 Hz (beep) should the preset level be exceeded.

DESCRIPTION	FM-9NGAS ~ SERIES
Read Out (Units)	Bq/m <sup>3</sup> , uCi/cc, DAC, or Bq/L
Measures	Airborne Concentration
Hardware	❖ Calculations by Imbedded Processor ❖ On Board Data Logger
Available Options	Electronic Mass Flowmeter

### Specifications:

Sensitivity in the case of elevated background.

Count Time	N <sup>16</sup> Background	MDA FM-9NGAS-2 Ar <sup>41</sup> Concentration	MDA FM-9NGAS-3 Ar <sup>41</sup> Concentration
20 min.	2mR/hr	1 x 10 <sup>-7</sup> µCi/ml	5 x 10 <sup>-8</sup> µCi/ml
33 min.	4mR/hr	1 x 10 <sup>-7</sup> µCi/ml	5 x 10 <sup>-8</sup> µCi/ml
70 min.	8mR/hr	1 x 10 <sup>-7</sup> µCi/ml	5 x 10 <sup>-8</sup> µCi/ml
30 min.	0.01mR/hr	1 x 10 <sup>-8</sup> µCi/ml	5 x 10 <sup>-9</sup> µCi/ml
8 hr..	2mR/hr	2 x 10 <sup>-8</sup> µCi/ml	1 x 10 <sup>-8</sup> µCi/ml

### Environment

Sample Air:

Temperature: 23° F to 122°F (-5° C to 50°C)

Humidity: 10% - 95% (Non-condensing)

**Sample must be free of caustic and acid vapors and solvents**

### Dimensions

Electronics: FM-9XE-NG and FM-9XE-NGL: 11" w x 11" d x 11" h

FM-9NGAS-2, FM-9NGAS-3, FM-9NGAS-6: 21" w x 16" d x 11" h

Electronics and Cabinet: FM-9NGAS-10S: 30" w x 30" d x 6" h



## TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISIONS OF



USNUCLEARCORP

OTCQB-UCLE

# Noble Gas Air/Stack Monitor Argon – Xenon – Krypton

## Model Series - FM-9NGAS

FM-9XE-NG, FM-9NGAS-2, FM-9NGAS-3, FM-9NGAS-6S, FM-9NGAS-10S, FM-9XE-NGL (Leak Detector)

	RANGE OF FM-9NGAS SERIES – LOW TO HIGH	
<b>FM-9XE-NG &amp; FM-9XE-NGL</b>	$3.7 \times 10^{-2}$ Bq/ml - $3.7 \times 10^{-6}$ Bq/ml	$1 \times 10^{-6}$ $\mu$ Ci/ml - $10^{-2}$ $\mu$ Ci/m
<b>FM-9XE-NGAS-2</b>	$2 \times 10^{-2}$ Bq/ml – $2 \times 10^2$ Bq/ml	$7 \times 10^{-7}$ $\mu$ Ci/ml - $7 \times 10^{-3}$ $\mu$ Ci/ml
<b>FM-9XE-NGAS-3</b>	$3.7 \times 10^{-3}$ Bq/ml - $3.7 \times 10^1$ Bq/ml	$1 \times 10^{-7}$ $\mu$ Ci/ml - $10^{-3}$ $\mu$ Ci/ml
<b>FM-9NGAS-6S</b>	$1 \times 10^4$ Bq/ m <sup>3</sup> - $1 \times 10^8$ Bq/m <sup>3</sup>	$3 \times 10^{-8}$ $\mu$ Ci/ml - $3 \times 10^{-4}$ $\mu$ Ci/ml
<b>FM-9NGAS-10S</b>	1kBq/m <sup>3</sup> – $10^8$ MBq/m <sup>3</sup> 1 x 10 <sup>-3</sup> Bq/ml - 10 <sup>2</sup> Bq/ml	$2.7 \times 10^{-8}$ $\mu$ Ci/ml – $2.7 \times 10^{-3}$ $\mu$ Ci/ml

Low Level Model FM-9NGAS-6S Scintillator:  $1 \times 10^4$  –  $1 \times 10^8$  Bq/m<sup>3</sup>

	FM-9XE-NG FM-9XE-NGL (LEAK DETECTOR)	FM-9NGAS-2	FM-9NGAS-3	FM-9NGAS-6S	FM-9NGAS-10S
<b>Chamber Volume</b>	300cc	1 liter	1 liter	600 cc	6 liters
<b>Main Detector</b>	(1) 2" dia T-1190 GM	(1) 2" dia T-1190 GM	(2) 2" dia T-1190 GM	(2) 6" x 6" Organic Scintillator Sheets	(2) 6" x 6" Organic Scintillator Sheets
<b>Shielding</b>	3/8"	1.0"	3.0"	3/8" or 3/4"	3/8" or 1"
<b>Geometry</b>	4 $\pi$	4 $\pi$	4 $\pi$	4 $\pi$	4 $\pi$
<b>Background Subtract</b>	Electronic	Electronic	Real-Time 2" dia T-1190 GM	Electronic	Electronic
<b>Weight</b>	<b>Pounds (kg)</b>	<b>Pounds (kg)</b>	<b>Pounds (kg)</b>	<b>Pounds (kg)</b>	<b>Pounds (kg)</b>
<b>Electronics</b>	12 (5.4 kg)	20 (5.4 kg)	20 (9 kg)	20 (9 kg)	20 (9 kg)
<b>Pump</b>	7 (3.1kg)	14 (6.3 kg)	14 (6.3 kg)	14 (6.3 kg)	14 (6.3 kg)
<b>Typical Air Flow</b>	20 l/m	20 l/m	20 l/m	20 l/m	20 l/m
<b>Detector Shield</b>	22 (9.9 kg)	200 (90.7 kg)	590 (267.6 kg)	90 (40.8 kg) or 150 (68 kg)	220 (99.7 kg)
<b>Detectors</b>					110 (49.8 kg)
<b>Cabinet</b>					50 (22.6 kg)



## TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303  
PHONE: 818-883-7043 | FAX: 818-883-6103

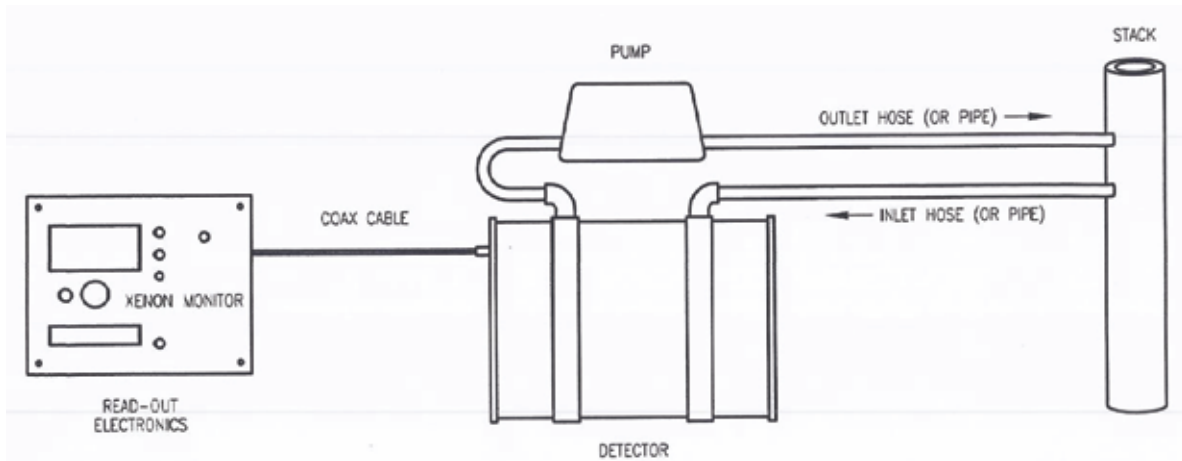
SALES@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISIONS OF  
 USNUCLEARCORP  
OTCQB-UCLE

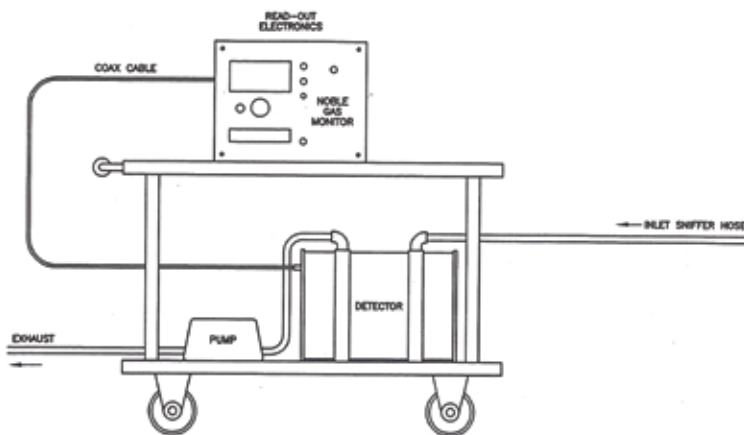
# Noble Gas Air/Stack Monitor Argon – Xenon – Krypton

## Model Series - FM-9NGAS

FM-9XE-NG, FM-9NGAS-2, FM-9NGAS-3, FM-9NGAS-6S, FM-9NGAS-10S, FM-9XE-NGL (Leak Detector)



**FM-9NGAS System Overview**



**FM-9XE-NGL  
Leak Detector Overview**



**FM-9NGAS - Ultra Low Noise Pump  
Green Turtle Pump**




## TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISIONS OF  
 USNUCLEARCORP  
OTCQB-UCLC