



NGM 206

On-line noble gas monitor

- continuous monitoring and display of gas volume activity
 - visual, audible and electrical signal alarms when threshold levels are exceeded
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- energy spectrum and temperature changes compensation
 - 1024 channels spectrum analysis
 - available with or without display and local signaling
 - no sampling system needed
 - measurement range on request

The NGM 206 from the **RAMSYS** product line has been developed for gaseous effluent. A NaI scintillation detector inside a lead shielding faces the volume (usually a pipe) containing noble gas.

The size of the NaI scintillation detector, the shape and the thickness of the lead shielding is defined by Monte-Carlo analysis on the basis of the required measurement for the application, the volume characteristics, the background and source term for the gas.

Version available	Display and local signalling	Associated detector	Associated processing
NGM 206-1		1 in 1/4 x 1in	LPU/SAS
NGM 206-2		3 in x 2 in	LPU/SAS
NGM 206-3	X	1 in 1/4 x 1in	LPDU/SAS
NGM 206-4	X	3 in x 2 in	LPDU/SAS

Information: in this datasheet are provided as examples for specific arrangements, temperature ranges, energy ranges, measurement ranges, please consult us.

Physical characteristics

- radiation detected: gamma
- detector: NaI scintillation detector
- lead shielding: 2π or $4\pi/5$ cm ($4\pi/2$ in)
- measurement range:
 - 6 decades on the following range:
 - $3.7 \cdot 10^3$ Bq/m³ - $3.7 \cdot 10^5$ Bq/m³
- energy range: adjustable in the range 60 keV to 7 MeV
- temperature range: +0°C to +55°C (32°F to 131°F)

Electrical characteristics

- power supply: 120 V/60 Hz - 230 V/50 Hz
- interfaces
 - RS232 serial link for parameter configuration of the monitor through a computer and MASS application software
 - two 0/4 - 20mA analog outputs, two 0/4 - 20mA analog inputs, three programmable relays, two RS485 isolated serial links

Mechanical characteristics

- protection level: IP65 and IK07
- aluminium case: RAL 7030 grey colour decontaminable paint
- dimensions:

	Detection sub assemblies	LPU/SAS	LPDU/SAS
height	359 mm (14.1 in)	326 mm (12.83 in)	370 mm (14.56 in)
width	394 mm (15.4 in)	196 mm (7.7 in)	196 mm (7.71 in)
depth	496 mm (19.5 in)	106 mm (4.17 in)	187 mm (7.36 in)
weight	290 kg (639 lb)	4.5 kg (7.92 lb)	8 kg (17.6 lb)

Qualification

- EMI/RFI: EN 55022, CEI 61000-6-2, CEI 61000-6-4

Alarm signaling (applicable to LPDU only)

- audio indicators: buzzer sound alert rated at 90dBa at one meter
- visual indicators: programmable operation lights such as red for high alarm, yellow for alert alarm, green for normal operation

Accessories

- RAMSYS softwares
- junction box to get all signals on a terminal block
- set of calibration (¹³⁷Cs and ⁶⁰Co sources and their fixture)

RAMSYS: Radiation
Monitoring System