Thermo Scientific RadEye G Ex series

Intrinsically Safe Personal Radiation Detectors

New Thermo Scientific RadEye G Ex radiation detector series, used by e.g. emergency services, fire fighters and hazmat teams for safe measurements in potentially explosive atmospheres.

Key Features and Benefits

- Efficient and reliable dose and dose rate measurements
- Intrinsically safe according to ATEX standards
- Large, clear and backlit display for error free readings
- Rugged and reliable
- Light-weight, only 160 g (5.6 oz)
- Low power technology

Applications

- Emergency services
- Fire brigades
- Hazmat teams
- Locations with risk of explosion
- Refineries
- Oil platforms

In emergency response and in industry flammable and explosive materials like gases, dust and fibers can occur. In such potentially explosive atmospheres it is necessary to use ATEX certified devices for your measurements.

The Thermo Scientific RadEye G Ex radiation detector series comprises 4 versions of intrinsically safe handheld devices for gamma and dose rate measurements. They are designed according to the latest ATEX standards to meet the needs of their operator in and around hazardous areas.

The dose rate capabilities of the high range RadEye versions GF-Ex and GF-10-Ex radiation detectors are designed to exceed the higher set points required for "Emergency Response Life-Saving Turn Around" situations.

Devices certified as „intrinsically safe" are designed to be unable to release sufficient electrical or thermal energy to cause ignition of flammable materials like gas, dust or particulates.

Beside the ATEX tags, the visual difference between the RadEye detector versions is noted by the orange color of the front panel of the intrinsically safe versions for increased visual impact in reduced visibility situations.

Inside, the RadEye G Ex detector devices have been re-engineered to reduce energy safety issues and avoiding the generation of heat and electrical sparks. They are premium products designed for ultimate safety and accurate dose rate measurements.

ATEX Certification RadEye G Ex Instruments II 2G EX ia IIB T4

Ex	ATEX examination mark. This sign is required on all devices used in European hazardous areas.
II 2G	Classification of zones. II = device is approved for all non-mining areas. 2 = catagory of the device, here it means that the device is rated for the second most hazardous areas. G = designates atmoshere, in this case gas, vapors and mist.
Ex	Explosion protection based on European Ex-regulations.
ia	Explosion protection type, „ia" is the highest level of protection.
IIB	Gas group for average reactive gases (except hydrogen, acetylene or carbon disulfide)
T4	Temperature class gives the user the maximum temperature of a surface that may be in contact to the Ex atmosphere under fault conditions. T4 is rated at 135°C.

Specifications	**SI-units**	**USA**
Measuring range	RadEye G-10-Ex: From 0.5 µSv/ to 100 mSv/h RadEye GF-10-Ex: From 5 µSv/h to 3 Sv/h	RadEye G-Ex: From 50 µR/h to 10 R/h RadEye GF-Ex: From 0.5 mR/h to 300 R/h
Sensitivity (Cs-137, 660 keV)	RadEye G-10-Ex: ~1.7 cps/µSv/h RadEye GF-10-Ex: ~0.13 cps/µSv/h	RadEye G-Ex: ~17 cps/mR/h RadEye GF-Ex: ~1.3 cps/mR/h
Dose	0.5 µSv to 10 Sv [50 µR to 1000 R]	
Linearity error	max. +/- 10 % in the measuring range	
Alarm thresholds	Two each thresholds for dose and dose rate	
Energy range	48 keV - 3 MeV according to IEC60846-1 and ANSI 42.17A accordingly	
Working temperature	-20°C ... + 50°C	
Relativ humidity	10 ... 90 % at 35°C	
Protection degree	IP 65 according to EN 60 529	
ATEX classification	**II 2G Ex ia IIB T4 IBExU10ATEX1096**	
Size	96 x 61 x 31 mm without rubber protector	
Weight	approx. 160 g, including 2 batteries	
Internal memory	The latest 1600 measured values are saved and can be read out via PC-program. Logbook with 250 entries for changes of configuration, occurring alarms and errors.	
Order numbers	**RadEye G-10-Ex: 425067660**	**RadEye G-Ex: 425067460**
	RadEye GF-10-Ex: 425067670	**RadEye GF-Ex: 425067470**

All RadEye G Ex devices have been developed according to European Community Directive 94/9 (ATEX). Our quality management system meets the additional requirements of quality management standard EN 13980, for the production of instruments intended to be used in potentially explosive atmospheres.

LAURUS SYSTEMS