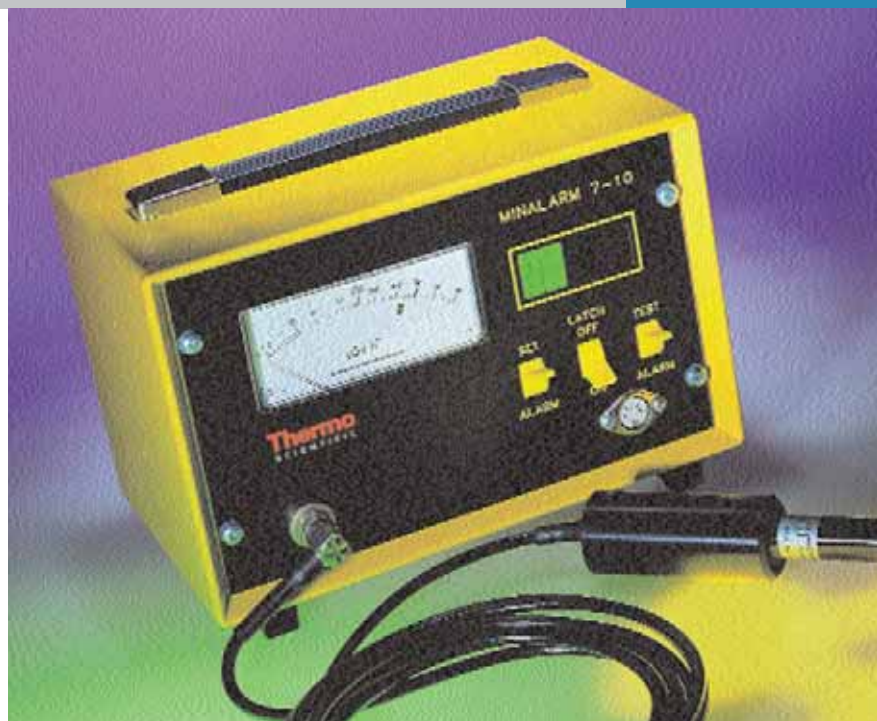


The MinAlarm 7-10 is a mains operated installed radiation monitor with an audio/visual alarm that can be set to trip at any point on the scale. It is available with a variety of probes to suit different monitoring requirements.

MinAlarm 7-10 Series

Installed radiation alarm monitors

- Local and remote alarm indications
- Wide variety of available probes
- Battery backed mains operation



The MinAlarm models are simple, tough, metal-cased monitors for bench or wall mounting.

The semi-logarithmically scaled meter has an open scale at the lower end to indicate background levels of radiation without range switching.

Alarms, which can be tripped at any point on the scale, are indicated audibly and through 50,000 hr solid-state visual alarm condition

lamps. There are also connections for alarm relay contacts and an analog output for remote indication of alarm status. A selectable latching/non-latching alarm facility is included.

Checks and safeguards on the MinAlarm include a probe failure alarm, check functions for both the internal circuit and alarm, and an internal lead-acid battery to provide operation in the event of a mains failure.

System Specifications

Models Available

MinAlarms 7-10G & 7-10GL

The 7-10G is a sensitive instrument using the MC70 G-M tube. The meter is scaled over the range 0.05 to 75 $\mu\text{Sv/h}$ (0.005 to 7.5 mR/h). The useful energy range is 55 keV to 1.25 MeV and above. The 7-10GL uses the MC71 low inherent background G-M tube and is intended for environmental monitoring. These models are not suitable for monitoring X-radiation.

MinAlarm 7-10C

The meter is scaled 1 to 2,000 counts s^{-1} for other G-M tubes and scintillation detectors from the Mini range. Scintillation probes from other manufacturers may also be used.

MinAlarm 7-10R

The meter is scaled over the range 0.5 to 5000 $\mu\text{Sv/h}$ (0.05 to 500 mR/h). The MC10 compensated G-M tube has a useful energy range from 45 keV to 1.25 MeV and above. It is not recommended for monitoring X-radiation from apparatus operating below 75 kVp.

MinAlarm 7-12

The 7-12 is a special version that allows the probe to be sited up to 500 m (1640') from the instrument. Four matching probes are available. The MC74 covers the range 0.05 $\mu\text{Sv/h}$ to 75 $\mu\text{Sv/h}$;
 MC75: 0.5 $\mu\text{Sv/h}$ to 1 mSv/h
 MC76: 1 $\mu\text{Sv/h}$ to 5 mSv/h and
 MC77: 5 $\mu\text{Sv/h}$ to 10 mSv/h.
 The energy response of these probes is 85 keV to 1.3 MeV $\pm 30\%$.

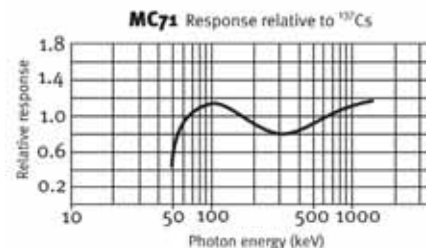
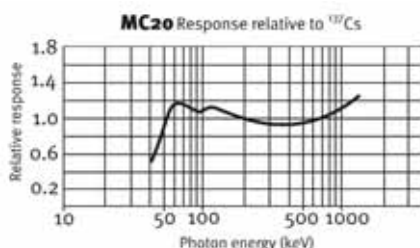
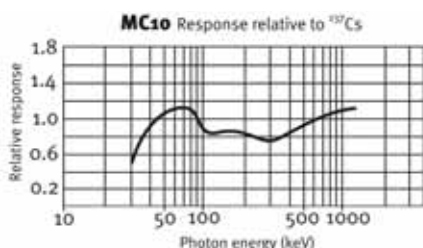
MinAlarm 7-10RL

Compensated G-M tube MC20 with an energy range of 50keV to 1.25 MeV. The meter is scaled from 0.5 to 1000 $\mu\text{Sv/h}$ (0.05 to 100 mR/h) with emphasis in the 1 to 10 $\mu\text{Sv/h}$ (0.1 to 1 mR/h) range. It is not recommended for monitoring X-radiation from apparatus operating below 75 kVp.

Non-ambient dose equivalent ($\text{H}^*(10)$) versions are available as 7-10R, 7-10RL, etc.

Additional features

To augment the visual alarm, a red, high intensity xenon beacon can be mounted on top of the case to give 360° viewing. The audible alarm is also replaced by a high output unit.



Specifications

Weight:	2.5 kg (5.5 lbs)
Size:	15 H x 22 W x 15 D cm (6" H x 6" W x 8.5" W) overall.
Mains supply:	100 to 120 / 200 to 240 VAC, 50 to 60 Hz, approx. 10 Watts.
Back-up battery:	Sealed lead acid, 12 V 1.1 Ah.
Meter Integration time:	Set to match scale range: 1 to 10 s for R, RL; 1 to 20 s for G; 1 to 100 s for GL
Radiation detector:	Halogen quenched G-M tube or scintillation probe.
Detector supply:	300 to 1500 V, adjustable internally.
Overload protection:	No meter 'fallback' with intensities at least 100 times maximum scale reading.
Detector location:	Attached to MinAlarm or within 3 m (10') of the instrument.
Audible alarm:	90 dBa at 30 cm 400 Hz.
Indicator lamps:	Dual large area LED panel lamps showing green or red when tripped.
Detector energy response:	The response of types G/GL, R and RL are shown above. (Data for all the graphs was supplied by NRPB)
Cable length:	The detector cable length is normally 3 m (10'). Longer cable lengths, up to a maximum of 500 m (1640'), are only available in the 7-12 version.

Additional data for model 7-12

Probe location:	Up to 500 m (1640') from instrument.
Detector voltage:	500 to 1500 V produced by power supply mounted within probe housing.

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Worldwide
 Frauenaucher Strasse 96 +49 (0) 9131 909-0
 D 91056 Erlangen, Germany +49 (0) 9131 909-205 fax

United Kingdom
 Bath Road, Beenham, +44 (0) 118 971 2121
 Reading RG7 5PR United Kingdom +44 (0) 118 971 2835 fax

United States +1 (508) 520-2815
 27 Forge Parkway +1 (800) 274-4212 toll-free
 Franklin, MA 02038 USA +1 (508) 428-3535 fax

www.thermo.com/rmp

