

## PM1710C Gamma and PM1710GNC Gamma-Neutron Monitors

The wall-mounted highly sensitive radiation gamma and gamma-neutron monitors for building protection. The detectors can be installed near doorways and entrances to continually monitor passing people and packages for radioactive materials.



### Features

The wall-mounted PM1710C Gamma and PM1710GNC Gamma-Neutron monitors are highly sensitive instruments designed for radiation monitoring and thus protection of a building against radioactive contamination. The detectors may be fixed near doorways and facility entrances to continuously monitor human traffic and their luggage against radioactive sources presence.

Both types of instruments have a radiation sensitivity that is close to the sensitivity of the much larger and significantly more expensive pedestrian radiation portal monitors. The PM1710C and 1710GNC achieve such sensitivity through their large CsI(Tl) gamma radiation detectors and He-3 neutron detector. However, the small and compact ergonomic design of the instruments allows professionals to use them comfortably and easily whether standing stationary or moving around.

When the instrument detects radiation that exceeds the preset threshold values, the alarms will begin to signal the danger via both the audible and visual alarms. To locate the radioactive source, the detector can be easily removed from a wall mounting cradle and used as a regular hand-held radiation detector.

The radiation detectors can be easily integrated into the local network by RS485/USB interface connection. Such integration allows a remote user to access to the detector's readings on the PC screen and/or be immediately alerted in case of alarm.

### Applications:

- [Networked Solutions](#)
- [Building Protection](#)

### Specification

	PM1710C	PM1710GNC
<b>Standards compliance</b>	ITRAP/IAEA requirements	ITRAP/IAEA requirements
<b>Search and spectrometry <math>\gamma</math>-channel</b>		
<b>Detector</b>	CsI(Tl)	CsI(Tl)
<b>Sensitivity for <math>^{137}\text{Cs}</math>, no less</b>	500 (s <sup>-1</sup> )/( $\mu\text{Sv/h}$ ) (5.0 (s <sup>-1</sup> )/( $\mu\text{R/h}$ ))	500 (s <sup>-1</sup> )/( $\mu\text{Sv/h}$ ) (5.0 (s <sup>-1</sup> )/( $\mu\text{R/h}$ ))
<b>Sensitivity for <math>^{241}\text{Am}</math>, no less</b>	500 (s <sup>-1</sup> )/( $\mu\text{Sv/h}$ ) (5.0 (s <sup>-1</sup> )/( $\mu\text{R/h}$ ))	500 (s <sup>-1</sup> )/( $\mu\text{Sv/h}$ ) (5.0 (s <sup>-1</sup> )/( $\mu\text{R/h}$ ))
<b>Energy range</b>	0.045 – 3.0 MeV	0.045 – 3.0 MeV
<b>The number of accumulation channels of the scintillation spectra</b>	x	x
<b>The number of spectra, stored in non-volatile memory</b>	x	x
<b>Search neutron-channel</b>		
<b>Detector</b>	x	He-3
<b>Energy range</b>	x	0.025 eV - 14 MeV
<b>Measuring <math>\gamma</math>-channel</b>		
<b>Detector</b>	x	x
<b>Dose rate</b>	x	x
<b>Energy range</b>	x	x
<b>Measuring <math>\alpha</math> and <math>\beta</math>-channel</b>		
<b>Detector</b>	x	x
<b>Measurement range of <math>\alpha</math>-flux density</b>	x	x
<b>Measurement range of <math>\beta</math>-flux density</b>	x	x

<b>Energy range of <math>\beta</math> measuring</b>	x	x
<b>Physical Parameters</b>		
<b>Dimensions</b>	172 x 57 x 32 mm (6 <sup>3</sup> / <sub>4</sub> " x 2 <sup>1</sup> / <sub>4</sub> " x 1 <sup>1</sup> / <sub>4</sub> ")	195 x 82 x 32 mm (7 5/8" x 3 <sup>1</sup> / <sub>4</sub> " x 1 <sup>1</sup> / <sub>4</sub> ")
<b>Weight</b>	420 g (14.8 oz)	650 g (22.9 oz)
<b>Drop test on concrete floor:</b>	0.7 m (2.3 ft)	0.7 m (2.3 ft)
<b>Environmental Characteristics</b>		
<b>Temperature</b>	-30 to +50 °C (-22 to +122 °F)	-30 to +50 °C (-22 to +122 °F)
<b>Humidity</b>	up to 95 % at 35 °C (95 °F)	up to 95 % at 35 °C (95 °F)
<b>Environmental protection</b>	IP65	IP65
<b>Power</b>		
<b>Batteries</b>	one AA battery/5V DC	one AA battery/5V DC
<b>Battery lifetime</b>	700 hours on battery	700 hours on battery
<b>PC Communication</b>		
<b>PC Communication</b>	IRDA, RS-485	IRDA, RS-485