

GM counter interface. MS nr.93432 for LabPro and LabQuest



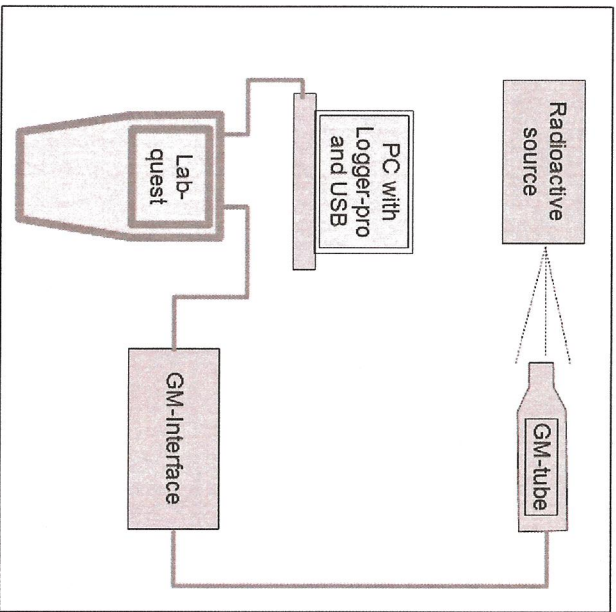
Interface for using a Labpro or a LabQuest as GM counter with a suitable GM – tube.

Specifications:

GM tube voltage	500 V(+,- 5 V)
GM tube connection	BNC
Max count range	0 – 10.000 CPM
Auto ID (LabQuest only)	Radiation Counter
Dead time	< 150 μ S
Lab-Pro/Lab-Quest connection	Digital port
Signal output (counts)	C Mos 0,2 -4,8 V
Dimensions:	
Height	25 mm.
Length	100 mm.
Width	50 mm.
Supply voltage (from LabQuest/Labpro)	5 V DC
Supply Current(typical)	10 mA.

User Guide:

The probe is used with and LabPro or LabQuest interface connected to a PC with Logger-Pro software installed. A Lab-Quest will automatically recognize a Radiation Monitor with Lab-Pro a manual probe setup is needed; select a Radiation Monitor for the proper Digital input and connect the cable from the digital input to the interface. Connect a GM tube (without built in resistor) to the BNC connector on the interface and start the data collection



Calibration:

No calibration is needed for this probe.

Example:

In the following example, the GM tube is placed in front of an Americium 241 source. The distance is adjusted so the count rate is around 500 cps. The graph on the Logger-pro is set to logarithmic scale. The sampling time is set to 1 second and the registration is started. After approximately 100 sec., a sheet of thin cigarette paper is inserted between the source and the GM tube. Note how the count rate is reduced to approx. 20 cps. After another 50 seconds the source is removed entirely, and the registration drops to the background level (0... 2 cps) Note that the statistical variation is considerably higher with the lower count rates. Therefore, in order to obtain reliable readings, the sampling interval should normally be set, so the count number in each interval is at least 100, to obtain reliable readings.

