

NEW LMI DETECTORS *December 1992*

We now offer two different 50 cm² pancake detectors for use in frisking for alpha, beta and gamma. Both detectors consist of 4 pancake G-M tubes to create an effective 50 cm² window. These detectors have the same window areas, efficiencies, protective screens, and mica windows. The only difference in the two is the location or placement of the pancake tubes.

The pancake tubes are arranged in a square pattern on the Model 44-89 (See illustration below). On the Model 44-94, the pancake tubes are arranged in a diamond pattern. This would give one an overlapping field and would reduce the possibility of missing any hot spots. Both units have reversible handles and are supplied with "C" connectors. Other connectors can be supplied upon request.

The Model 44-89 and 44-94 operate at the standard 900 Volts. Therefore, they can be used with virtually any Ludlum instrument. The tubes are protected with a 79% open protective stainless steel screen. The pancake tubes can be easily replaced on site if they become damaged. Spare pancake tubes can be ordered using Part Number 01-5008 and list for \$88.00 each.

MODEL 44-89 and MODEL 44-94 SPECIFICATIONS

INDICATED USE: Alpha, beta and gamma.

DETECTOR: 4 G-M pancake tubes.

WINDOW: 1.7 ± 0.3 mg/cm² mica each window.

WINDOW OPEN AREA: Combined area approx. 50 cm².

PROTECTIVE SCREEN: Stainless steel 79% open.

EFFICIENCY*: 10% for C-14; 45% for Sr-90; 38% for Tc-99;
70% for P-32; alpha 30%; and 12,000 cpm/mR/hr for Cs-137.

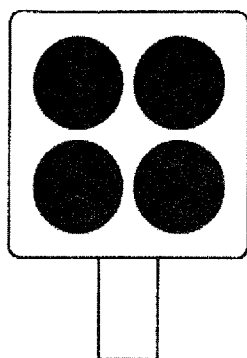
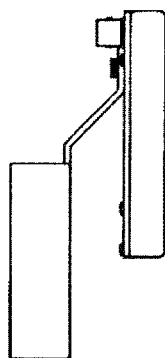
SIZE: Model 44-89 5.05"L x 5.05"W x 3.25"H

Model 44-94 4.5"L x 6.05"W x 3.25"H

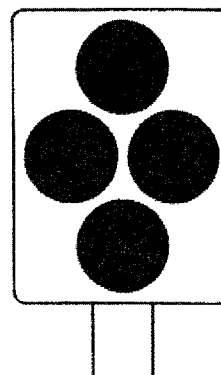
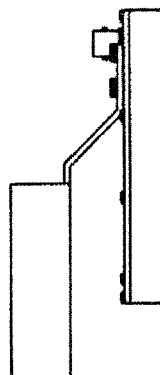
WEIGHT: 2 pounds approximately.

PRICE: \$ 495.00 Each

* Approximate 2pi efficiencies



MODEL 44-89



MODEL 44-94

LMI TIPS: Detectors with Protective Screens *December 1992*

We recently reviewed our catalog specifications for LMI detectors and we found some mistakes that need to be corrected. Since these corrections may take some time to publish, we would like to make the following explanation.

The detectors in question are detectors which have protective screens placed over the detector windows. The terms **active area** and **open area** are sometimes confusing to you, the customer and, in this case to us, the specification writer. We define **detector active area** as the total counting area for the detector face; that is from one edge to the opposite edge of the outside hole pattern of the screen or the complete window area of the detector including the obstructed area .

We define the **detector open area** as the area of the detector less the obstructing area of the protective screen material. However, we regretfully published some wrong numbers in regards to these type of detectors in our catalog. Listed below are examples of how to calculate open areas and a list of the correct active area specifications of these LMI detectors.

Example 1: The Ludlum Model 43-5 has a square pattern protective screen. Our catalog states that the window area has a 50 cm² **active area**, when it actually has a 50 cm² **open area**. The active area (outside edge to outside edge of window) is 79 cm². This specification will be corrected to read WINDOW AREA: Active area is approximately 79 cm² with the protective screen 63% open.

$$\underline{79\text{cm}^2 \text{ active area} \times 63\% (.63) \text{ open screen} = \approx 50\text{cm}^2 \text{ open area}}$$

Example 2: Ludlum Model 43-65 has the hex pattern protective screen and the LMI catalog defines the window **active area** as 50 cm² and the protective screen as 79% open. If this were true, this would give a window **open area** of 37 cm². This specification will be rewritten as WINDOW AREA: Active area is approximately 63 cm² with the protective screen 79% open.

$$\underline{63\text{cm}^2 \text{ active area} \times 79\% (.79) \text{ open screen} = \approx 50\text{cm}^2 \text{ open area}}$$

Corrections for the detector WINDOW AREA specifications listed in the LMI catalog are:

LMI Detector Model Number	Active Area	Screen Specs	Open Area
43-4	79 cm ² active area,	63% open	50 cm ²
43-5	79 cm ² active area,	63% open	50 cm ²
43-20	180 cm ² active area,	79% open	140 cm ²
43-44	79 cm ² active area,	63% open	50 cm ²
43-65	63 cm ² active area,	79% open	50 cm ²
43-68	126 cm ² active area,	79% open	100 cm ²
44-7	correct as stated		
44-9	correct as stated		
44-40	correct as stated		
44-88	correct as stated		
44-89	62 cm ² active area,	79% open	50 cm ²
43-37(M239-1F)	583 cm ² active area,	73% open	425 cm ²
43-37-1(M239-1F)	821 cm ² active area,	73% open	599 cm ²

NEW EXTENSION HANDLE

December 1992

We have had requests for a detector extension device for some of our scintillation and G-M detectors. We now have available a telescoping pole or rod that makes it possible to use these detectors up to twelve feet away from the handle. The poles are made of light weight fiberglass and are available in three different lengths. The part numbers, prices and lengths are listed below.

Part no.	Telescoping length .	Price
4085-185	6 to 12 feet	\$ 65.00
4085-184	4 to 8 feet	\$ 45.00
4085-183	5 ft. handle	\$ 25.00

Prices include handle and detector mounting bracket. Call the LMI Sales Department at 1/800/622-0828 for more information.

MURPHY'S LAWS CALENDARS

We hope you enjoy your 1993 Murphy's Laws Calendar. Unfortunately, there will be no extra calendars available. However, if you have co-workers or others that would like to have a calendar, have them mail or call in their name so they can be put on our list for next year's calendar.