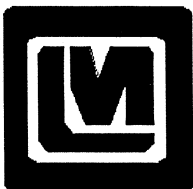


**LUDLUM MODEL 43-44
AIR PROPORTIONAL PROBE**

Revised January 1990



LUDLUM MEASUREMENTS, INC.
501 OAK ST., P.O. BOX 810
SWEETWATER, TX 79556
915/235-5494 FAX: 915/235-4672

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1. GENERAL

The Ludlum Model 43-44 is an proportional probe used for the detection of alpha radiation. The probe requires an instrument with a 2 mV or less input sensitivity and a minimum of 2500 volt power supply, such as a Ludlum Model 12.

The probe will detect alpha energy of 3 meV or greater, with a 16-18% efficiency. (2π)

The detector chamber is environmentally sealed and vented to a drying agent to reduce moisture problems. The window is secured to the body of the probe by six screws. The window is covered by 0.4 mg/cm² metallized mylar and has an active area of 50 cm². The

desiccant can be replaced by removing the two screws holding the desiccant holder and inserting the fresh dehydrator.

The operating voltage for the M43-44 is 2,050 volts at sea level, decreasing approximately 50 volts per 2,000 ft. altitude.

The handle is secured by four screws and is designed so it can be positioned two different ways for user convenience.

The unit is strung with four equally spaced 0.001 diameter platinum wires with tension of approximately 2 ounces. The wire is soldered to standoffs which place the wire midway between the window and the floor of the chamber.

2. SPECIFICATIONS:

- Window: 0.4 mg/cm²
- Window Active Area: 50 cm²
- Efficiency for ²³⁹Pu: 16% (2π)
- Size: 63.5cm (2.5") W x 10.2cm (4") H x 22.9cm (9") L
- Weight: 1 lb.
- Finish: Anodized
- Operating Voltage: Altitude Dependent
 - 2,050 volts at sea level
 - 2,000 volts at 2,000 feet
 - 1,925 volts at 5,000 feet
 - 1,875 volts at 7,000 feet

PARTS LIST

Ref. No.	Description	Part No.
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Model 43-44 Air Proportional Probe

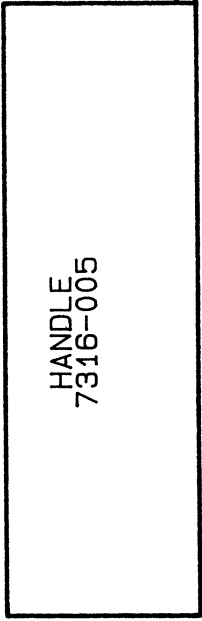
UNIT	Completely Assembled Model 43-44 Air Proportional Probe	47-1169
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Assembly View, Drawing 316 X 8

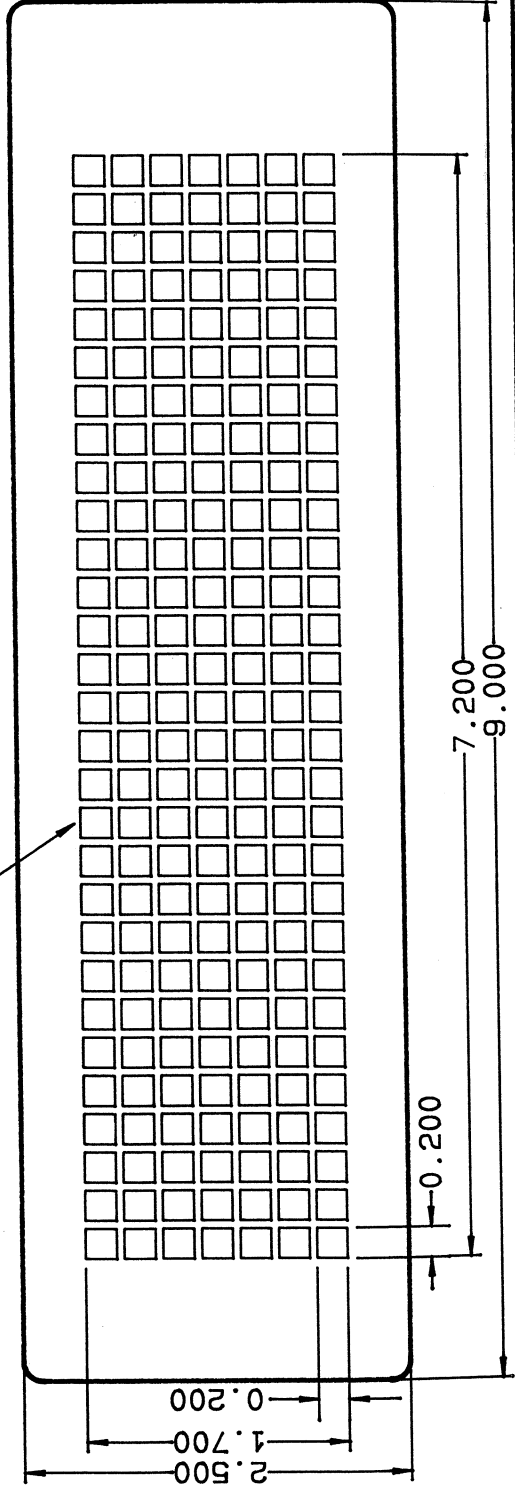
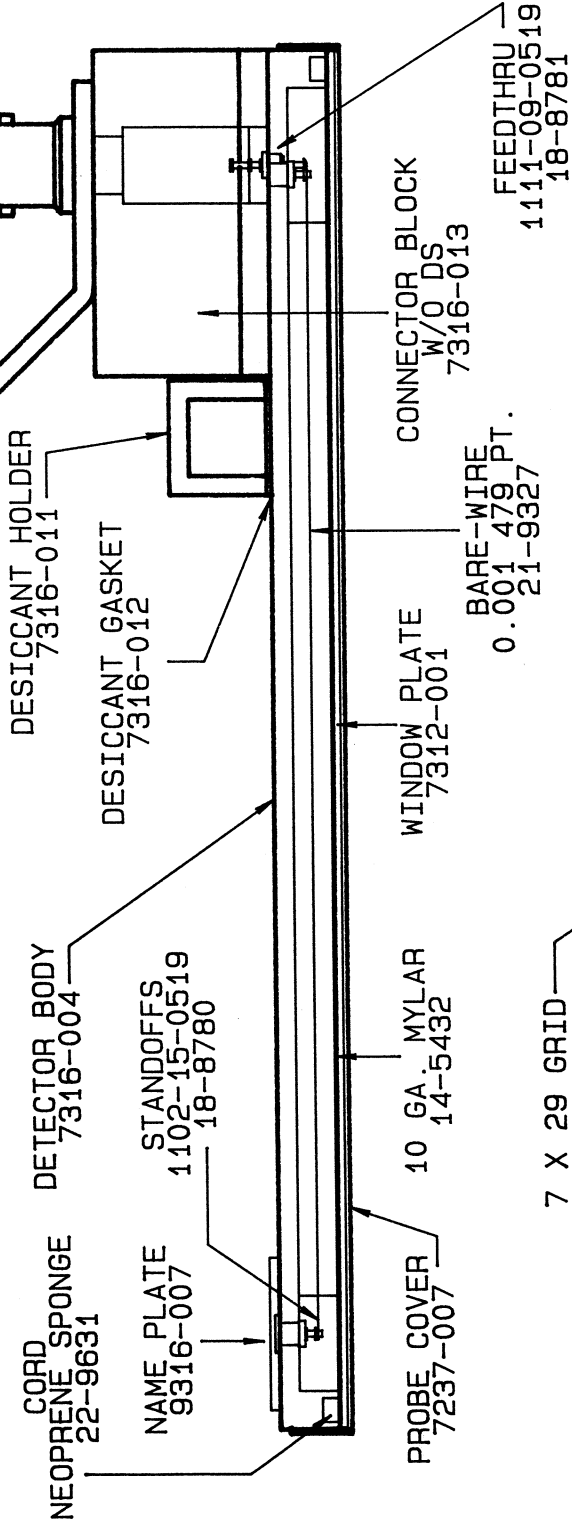
Part No.	Descrip.	Qty.	Price
2312-026	Window w/ Mylar	1 ea.	6.00
7312-001	Window w/o Mylar	1 ea.	3.50
7237-007	Probe Cover	1 ea.	3.50
7316-005	Handle	1 ea.	19.60
7316-011	Desiccant Holder	1 ea.	17.17
7316-004	Detector Body	1 ea.	76.40
7316-012	Desiccant Gasket	1 ea.	
7316-013	Connector Block	1 ea.	
9316-007	Name Plate	1 ea.	6.57
22-9631	Neoprene Sponge Cord	*	0.25/ft
22-9664	Desiccant Dehydrators	1 ea.	0.27
13-7752	Connector "C"	1 ea.	9.52
21-9327	Wire 0.001 Dia.	1000 ft. Roll	268.00
14-5432	10 Ga. Mylar	*	2.00/sq. ft.
08-6655	#4 Thumb Screws	2 ea.	0.18
17-8839	4-40 x 7/8 Soc. Cap Screws	2 ea.	0.25
18-8780	Standoff-1102-15-0519	12 ea.	0.72
18-8781	Feedthru-111-09-0519	1 ea.	0.83

Assembly View, Drawing 316 x 8

DESC: ASSEMBLY VIEW	
MODEL: 43-44	
PART #: 4316-014	
DWN: CKB	DATE: 12/29/89
DSGN:	DATE:



RECPT-UG568/U
13-7752



CHK NO.	DWN	CHK	APP
DWN DATE	CHK DATE	APP DATE	
CKB 12/29/89			
TOL: SHIP STD <input type="checkbox"/>	SCALE: FULL <input type="checkbox"/>	OTHER <input type="checkbox"/>	1=1.25
TITLE MODEL 43-44 AIR PROP. PROBE			
LUOLUM MEASUREMENTS, INC. SERIES 318			SHEET 8
8210 W. GUYTON, TEXAS 75868			