

Model 4906AB

Alpha/Beta Hand & Foot Monitor

Radiation Detection for a Safer World



Ludlum Measurements, Inc.

Features

- Alpha/Beta Gas Flow Proportional Probes
- Large LCD User Interface
- Automatic Routines for Detector Setup & Alarm Calculations
- Voice Prompts
- Built-in Ethernet Interface
- Single-Hand Operational Mode
- Optional GM Pancake or Gas Flow Proportional Hand Frisker

Introduction

The Model 4906AB is a six-detector instrument designed to survey the hands and shoes of personnel for alpha and beta contamination. Low cost, industrial-duty, and ease-of-use makes the monitoring process easier. Potential contamination and system status is indicated on a large color LCD. Alarms are annunciated locally and can be augmented with optional relays for signaling remote devices or a high-visibility light stack mounted on the top of the instrument. The built-in Ethernet interface supports connection to a network for gathering all count cycles along with permitting remote monitoring of the status of the instrument.

Optical switches activate the counting from six gas flow proportional type detectors. Customizable audio files can provide the user with voice prompts or site-specific instructions thereby making the instrument adaptable. The optional light stack uses a three-tier pattern (green – OK, yellow – failure, red – contamination alarm) to contribute to ease of use.

Specifications

DETECTORS: six gas flow proportional: two for feet, and four to cover both sides of hands

COUNTING GAS: P-10 or equivalent

DETECTOR EFFICIENCY (4π):

Hand Detectors: $^{90}\text{S}/^{90}\text{Y}$: 23%; ^{230}Th –15% (gamma sensitivity: 125 cps/ $\mu\text{Sv/h}$)

Foot Detectors: $^{90}\text{S}/^{90}\text{Y}$ –11%; ^{230}Th –5% (gamma sensitivity: 250 cps/ $\mu\text{Sv/h}$)

DISPLAY: 30.7 cm (12.1 in.) diagonal, TFT LCD SVGA

ELECTRONICS: fanless motherboard running Embedded Windows™ 7 Pro

COUNT TIME: adjustable from 1–1000 seconds

CONTROLS: LCD touchscreen provides all control functions with the exception of 1) power on/off button, 2) one hand operation button, 3) alarm acknowledgment button

CONSTRUCTION: welded aluminum with powder coat finish, stainless steel base, and two rear-mounted offset wheels for portability

TEMPERATURE RANGE: 0 to 40 °C (32 to 104 °F)

HUMIDITY: 0–95% RH

POWER SUPPLY:

Input: 90 – 264 VAC at 47 – 63 Hz (requirement for wall outlet power)

Output: 12 VDC, 7 A Max, 84 W (M4906 input power coming from Power Supply)

SIZE: 121 x 79.8 x 90.2 cm (47.6 x 31.4 x 35.5 in.) (H x W x D), step-up 3.8 cm (1.5 in.) high

WEIGHT: 72.5 kg (160 lb)

Also Available:

Pancake Frisker: Model 44-9 with cable, infrared sensor, holder, & components for determining point of contamination in the event of an alarm [Part Number 4420-420]

Model 43-143 Frisker Kit: rechargeable, gas proportional frisker [Part Number 4420-445]

Light Tower with Red, Yellow, and Green Signal Lights [Part Number 4420-335]

Model 4906A Alpha Hand & Foot Monitor [Part Number 48-3687]

Model 4906P Alpha/Beta/Gamma Hand & Foot Monitor [Part Number 48-3919]



Part Number: 48-3688
[shown with optional
Light Tower]



Frisker Option: 4420-420