

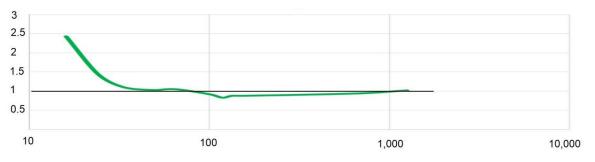
## The IC-10 Detector

1µSv/hr to 250 mSv/hr (0.1 mR/hr to 25 R/hr)

#### **Radiation Detection Division**

# **Health Physics**

The IC10 is a rugged ion chamber detector designed for accurate and highly stable field measurements. The detector is used for measuring exposure rates of gamma, X-ray, and beta radiation over a wide range. Combined with our portable monitors or into the WebiSmarts Area and Stack Monitoring system, the IC-10 makes an excellent choice for maintaining the highest safety standards in a wide variety of applications



Photon Energy Response Relative to <sup>137</sup>Cs

### **Features**

- Sturdy Casing (Aluminum)
- Built-in calibration factor
- Quick Connect to cable
- Available in Ambient Dose Equivalent H\*(10)

### **Applications**

- Fixed Area Monitoring for cyclotrons and accelerators
- Medium Radiation measuring detector
- Used in High Range areas to measure dose rates and accumulated dose

#### **Technical Data**

**Measuring Range** 1µSv/h to 250 mSv/h (0.1 mR/h to 25 R/h) **Display Range**  $0.1 \mu Sv/h$  to 250 mSv/h (0.1 mR/h to 25 R/h)

**Gamma Sensitivity** 0.04 pA/mR/h

Accuracy ±15% of reading within measuring range

**Gamma Energy Dependence** Better than ±20% at 20 keV to 1.2 MeV (Cs-137)

**Angular Dependence** Less than ±5% (for ±120° of front direction (Cs-137) Ion Chamber Volume

500 cc

**Chamber Wall and Cover Thickness** 300mg/cm<sup>2</sup> (tissue equivalent)

**End Window Thickness** 7 mg/cm<sup>2</sup>

**Response Time** Scale Time Range  $0.1 \mu Sv/h$  to  $10 \mu Sv/h$ 12 sec low

10  $\mu$ Sv/h to 100  $\mu$ Sv/h 8 sec low  $100 \mu Sv/hr$  to 2 mSv/h4 sec low 2 mSv/h to 250 mSv/h 2 sec high

**Input Signals** Offset/operation - control, High/low - range control

**Output Signals** TTL pulses, Detector status: ID, chamber voltage malfunction

**Temperature Range** Operation: -10°C to +50°C (15°F to 122°F),

Storage:  $-20^{\circ}$ C to  $+60^{\circ}$ C ( $-5^{\circ}$ F to  $140^{\circ}$ F)

**Humidity Range:** 40% to 95% RH (non condensing)

**Dimensions:** Chamber: 11.7cm (4.6") length, 8.9cm (3.5") diameter

Handle: 14.3cm (5.6") length, 5.2cm (2") diameter

Weight: 470g (1lb) Chamber: Polypropylene

Handle: Aluminum, splash proof

Max. cable length: 10 meters

> **Rotem Part# BAK-1230**

Optional 6 MeV Energy moderating sleeve and cover

Cover: MEC-3132 Sleeve: MEC-3133



ROTEM INDUSTRIES reserves the right to change specifications without advance notice





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