

HIGH RANGE SUBMERSIBLE MONITOR

•Model # CP-MU-10K (includes DMU-100 probe to 10⁴R/hr)

FEATURES:

- FIVE DECADES 0.1 TO 10,000 R/hr.
- WATERPROOF DETECTOR SYSTEM
- STABLE AND DEPENDABLE
- FAST RESPONSE
- LIGHTWEIGHT AND PORTABLE •6 AA CELL
- 2-WAY SERIAL PORT-STANDARD
- PROBE CABLE 0-60 FT



APPLICATION: Because of the extremely high range capability of this instrument and the waterproof construction of the ion chamber detection system, underwater monitoring (and in hot cell monitoring) of Reactor Spent Fuel Elements, Reactor components and doserate measurements of irradiated objects can now be made easily and at the ranges called for at moderate cost.

GENERAL DESCRIPTION: The Underwater Monitor consists of a lightweight single 6 AA cell operated, solid state and MOSFET driven electronic package (Model CP-MU) coupled to a High Range DMU-100 Detector System consisting of 60 feet of special low noise cable with a waterproof coupling to a 8" long x 1/2" diameter aluminum tube containing an ion chamber. A "handle" consisting of 8 foot sections of free draining 5/8" stainless steel tubing is available as an option.

- Five linear decades on the electronic package provide readings up to 10,000 R/hr. A "set" button on the front panel permits the meter to be adjusted to read zero by the zero adjust knob.
- Calibration is fully adjustable.

The instrument case is made of drawn aluminum with epoxy lettering for easy decontamination. Case openings are sealed by gasket or screw closure for protection of electronics.

- A reliable MOSFET electrometer circuit and improved solid state electronics assure long uninterrupted service. Mechanical switching of the high impedance circuit has been eliminated.
- Protection against influence by magnetic fields up to 60 gauss has been built into the instrument. A top handle and four rubber feet achieve a more stable base with no loss of display visibility.

TA TECHNICAL ASSOCIATES

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•Model # CP-MU-10K (includes DMU-100 probe to 10^4 R/hr)

SPECIFICATIONS:

- Accuracy:** $\pm 10\%$ F.S.
 - Calibration:** Cs-137 Gamma (Co-60 Optional)
 - Time Constant:** 2 seconds fast, 12 seconds slow
 - Drift:** At room temperature - less than 0.5% per °C
 - Battery:** 6 "AA" cells, carbon-zinc, alkaline, Li or nimh batteries can be interchanged without instrument adjustments. Use alkaline batteries below 0°C
 - Battery Check:** Pushbutton with LED indicator
 - Range Adjusts:** 1 internal screwdriver adjust
 - Zero Adjust:** Knob
 - MOSFET Protection Circuit:** Prevents damage to MOSFET when coupling or decoupling detector system.
 - Serial Port:** 2 way RS-232 communications for data collection or remote computer readout.
 - Dimensions:** 6-1/2"long x 3-1/2" x 9" tall including handle
 - Weight:** electronics 28 oz.
 - Detector System:** DMU-100 - Sealed Air ion chamber nominal 100cc volume.
 - Readout:** LCD 8 digits.
 - Indicator Lamp:** Green LED 1 pulse/sec R/hr. Red Over-range Indicator
 - Electrometer:** Solid State MOSFET input
 - Electronics** A-D converter LCD drivers
 - Options:** Readout in Si units: Sv and Sv/h WIN-W -- RS-232 Software
- Other cable lengths 0-100ft (30 meters) Settable visual alarm LED
Lighter weight, non-submersible probe and optional wand/handle.



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