



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
- Optional: 0.1 to 20,000 R/hr

Application

Extremely high range capability and waterproof construction of ion chamber detection system provides underwater monitoring and in hot cell monitoring of Reactor Spent Fuel Elements. Reactor components and dose rate measurements of irradiated objects can now be made easily and at the ranges called for.

General Description

- Lightweight single 6-AA cell operated, solid state and MOSFET driven electronic package.
- A High Range DMU-100 Detector System consisting of 60 feet of special low noise cable.
- 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.



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DIVISIONS OF



USNUCLEARCORP

OTCQB-UCLC

Gamma & Neutron High Range Underwater Portable Monitor

伽马中子高量程水下便携式监测仪

Model Series ~ CP-MU-GN

General Description 一般描述

- Model Series CP-MU Underwater Monitor System consists of an electronic package (**Model CP-MU**) coupled to a **High Range DMU-1, Mid Range DMU-100 or Low Range DMU-1000** Detectors.

CP-MU系列水下监测系统包括电子学CP-MU和高量程DMU-1、中量程DMU-100、低量程DMU-1000探测系统

- The system includes 60 feet (optional 100 feet) of special low noise cable with a waterproof coupling to a 8" long x 1/4" diameter aluminum tube containing an ion chamber (**Model DMU-1**) or
系统包括60英尺（可选100英尺）低噪音线缆连接到长8" x直径 1/4" 铝筒电离室DMU-1.
- The **DMU-100** probe has a 100 cc ion chamber
DMU-100 探头电离室100cc
- 8" long x 5-3/4" diameter aluminum ion chamber (**Model DMU-1000**).
DMU-1000 铝电离室体积长8" x 5-3/4"
- Model **CP-MU-GN** has dual in line detectors, Gamma & Neutron.
CP-MU-GN双电离室-伽马和中子

CP-MU-D1 (GAMMA)

CP-MU-D100 (GAMMA)

CP-MU-D1000 (GAMMA)

CP-MU-7-D1 (GAMMA)

CP-MU-GN (GAMMA & NEUTRON)

Description Details 详细情况

- Calibration is fully adjustable.
可调节标定设置
- 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.
设备外箱深拉铝材质易于去污，接口处带密封圈，螺丝带外套以保护电子学
- A reliable MOSFET electrometer circuit and improved solid state electronics assure long uninterrupted service. Mechanical switching of the high impedance circuit has been eliminated.
可靠静电计及固态电子学确保了设备无故障运行，高抗阻机械开关已经淘汰
- Protection against influence by magnetic fields up to 60 gauss has been built into the instrument.
内置防电磁场到60高斯
- A top handle and four rubber feet achieve a stable base with no loss of display visibility.
把手位于仪器上端，橡胶垫脚既稳定了设备又不妨碍显示。



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Model Series ~ CP-MU-GN

Ranges 量程

CP-MU	PROBE MODEL	RANGE	RANGE Sv	DETECTOR SIZE	PROBE LENGTH	DETECT
CP-MU-D1	DMU-1	0.1KR/hr to 1000.0 KR/hr	1 Sv/h to 10,000Sv/h	0.25" Dia x 8" Long 1.0cc internal	8 inches or 5 feet	GAMMA
CP-MU-D100	DMU-100	1 mR/hr to 1000 R/hr	1 μ Sv/h to 10 Sv/h	100 cc internal	8 inches or 5 feet	GAMMA
CP-MU-D1000	DMU-1000	0.1 R/hr to 1000.0 R/hr	10mSv/h to 10Sv/h	5.75" Dia x 8" Long 1000 cc internal	8 inches	GAMMA
CP-MU-GN	DMU-GN	0.1KR/hr to 1000.0 KR/hr	1Sv/h to 10,000Sv/h	0.385" x 12" long	12 inches or 5 feet	GAMMA NEUTRON
CP-MU-7-D1	DMU-1	1KR/hr to 10^7 R/hr	10Sv/h to 100,000Sv/h	0.25" Dia x 8" Long 1.0cc internal	8 inches or 5 feet	GAMMA
CP-MU-7-D1000	DMU-1000	1 R/hr to 10,000.0 R/hr	10mSv/h to 100Sv/h	5.75" Dia x 8" Long 1000 cc internal	8 inches	GAMMA

Specifications 参数

CP-MU Series Models: 此系列型号，电子学显示组件相同或相似。

CP-MU: **Electronic Package for All Models is the Same or Similar**

CP-MU-D1: DMU-1 Probe with 60-foot cable. (GAMMA Ion Chamber)

伽马电离室，线缆60英尺

CP-MU-D100: DMU-100 Probe and 60-foot cable. (GAMMA Ion Chamber)

伽马电离室，线缆60英尺

CP-MU-D1000: DMU-1000 Probe and 60-foot cable. (GAMMA Ion Chamber)

伽马电离室，线缆60英尺

CP-MU-GN: DMU-GN Probe with two channel version and two detectors (GAMMA Ion Chamber and NEUTRON Proportional Chamber)

此型号为2通道&2探头（伽马-电离室和中子-正比计数器）



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Accuracy:	± 10% (DECADE) 精度
Calibration:	Gamma - Cs-137 (Co-60 Optional) Neutron – RaBe
标定	
Time Constant:	2 seconds fast, 12 seconds slow 时间常数 快-2秒, 慢-12秒
Temperature Range:	-30°C to +57°C 温度
Drift:	At room temperature - less than 0.5% per °C 漂移 室温每度小于0.5%



Electronics 电子学

Readout:	LCD 8 digits. 显示
Indicator Lamp:	LED High Level: Green; Over-Range Indicator: Red 指示灯 LED高浓度: 绿灯; 过量程显示: 红灯
Electrometer:	Solid State MOSFET input 静电计 固体MOSFET模块
Range Adjusts:	1 (one) internal screwdriver adjustment 量程调整 内置螺丝刀调节
Zero Adjust:	Knob 调零 旋钮
MOSFET Protection Circuit:	Prevents damage to MOSFET when coupling or decoupling detector system. MOSFET保护电路 防止连接或断开探测系统时受损
Serial Port:	2 way RS-232 for data collection or remote computer readout. 串口 2路RS-232串口用于数据收集或远程电脑读数
Battery:	6 "AA" cells, carbon-zinc, alkaline, Li or Nimh type batteries can be interchanged without instrument adjustments. Use alkaline batteries below 0°C 电池: 6节AA电池, 碳锌, 碱性, 锂电或镍氢电池可互换
Battery Check:	Pushbutton with LED indicator 电池检测 按钮带LED指示
Electronics:	A-D converter, LCD drivers 电子学 A-D转换器, LCD驱动



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Weight and Dimensions 重量&尺寸

Dimensions:	6-1/2" long x 3-1/2" x 9" tall including handle
尺寸	包括把手长6-1/2"X高9"
Weight:	Electronics 28 oz.
重量	
Detector System:	DMU-1 - Sealed ion chamber 0.25" dia x 8" long. Internal 1.0 cc 此探测系统密封电离室直径0.25" x长8", 体积1.0cc
Detector System:	DMU-1000 - Sealed ion chamber 5.75" dia x 8" long. Internal 1000 cc 此探测系统密封电离室直径5.75" x长8", 体积1.0cc
Detector System:	DMU-GN - Sealed proportional chamber He3 or BF-3 此探测系统密闭冲氦或BF气体正比计数器

Optional 可选

~ Readout in SI units: Sv and Sv/h 读出国际单位Sv或Sv/h	~ Cable length 100ft (30 meters) 线长100英尺
~ WIN-W -- RS-232 Software RS-232软件	~ Alarm settable visual alarm LED 报警设定, 声光LED
~ USB Port USB口	~ Lighter weight chamber MODEL ~ DMU-1000LW, non-submersible 较轻电离室DMU-1000LW, 水上应用



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