

FOR THE DETECTION OF
ENTRAPPED MOISTURE

MCM-2
HYDROtector®

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Neutron Backscatter Moisture Detection
for Corrosion Under Insulation (CUI)



For more information about MCM-2 Hydrotector® and other products contact:
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Innovators in Instrumentation Technology

MCM-2 HYDROtector®



The MCM-2 Hydrotector® non-destructive, moisture measurement gauge is designed for quick determination of water content in the thermal insulation of pipes and vessels at chemical and petrochemical plants.

Designed as a screening tool to rapidly locate areas of trapped moisture, the MCM-2 works well in conjunction with corrosion detection equipment to quickly detect areas where corrosion under insulation is highly probable.

FEATURES

- Fast and easy to use; allows thousands of feet of insulated pipe to be tested in a day.
- Designed for maximum accessibility in hard-to-reach areas.
- Telescopic pole allows for testing from a distance of 10+ ft.
- Microprocessor based. Direct readout in engineering units. All tests can be stored and identified as to pipe or vessel and location. Using the RS-232C serial interface, the data can be quickly uploaded onto a computer or printer.
- “Quick Test Mode” for automatic readings and comparisons with a dry standard. User entered tolerance levels for very fast moisture detection.
- Up to 24K storage capacity for moisture readings and other key data.

APPLICATIONS

- Evaluate insulated tanks and vessels quickly for potential corrosion problems.
- Investigate insulated pipe for high concentrations of moisture to identify areas for corrosion inspection.
- Quickly detects levels in containment vessels.

SIMPLICITY OF OPERATION

This state-of-the-art instrument offers two easy-to-use operating modes. The manual mode allows individual tests to be taken at the push of a button, then recorded in memory. The Quick Test mode takes continuous readings, one every second.



MCM-2 Keyboard/Display

LICENSING AND TRAINING

InstroTek® offers the necessary radiation safety and application training to ensure proper use of this device on a continuous basis.

RUGGED AND RELIABLE

The MCM-2 detector assembly is enclosed in a strong, light weight aluminum housing. The LCD readout is sealed in a dust-proof and water resistant enclosure. The padded shoulder bag offers additional protection and convenience.

DATA LOGGING

Data logging capabilities allow storage of thousands of readings. The operator can format the memory to identify location, date and time or direction of measurements using a 5-digit ID number. Data can be transferred to a computer or printer and is compatible with most spreadsheet programs.



Built-in data logger allows entry of numerical identifiers and time and date stamping for each test.

Telescopic pole allows easy access to hard-to-reach areas and eliminates the need for scaffolding.



SPECIFICATIONS

DIRECT READOUT FEATURES

LCD DISPLAY

8 character display reads in direct count or % volume.

CALIBRATION

16 selectable calibrations allow for varying conditions.

DIRECT SELECTION

Keyboard selection of gauge functions for counting, self-calibration, unit selection, data definition, storage format, and computer serial dump.

DATA STORAGE

24,000 cells of counts and key data entry. Operator programmable format.

DATA OUTPUT

Connection allows user to upload data directly to computer for data processing and report printout.

FUNCTION

NDT measurement of insulation materials by manual counts or “quick test” automatic counts.

RANGE

0 to 70% moisture

COUNT TIME

User selectable. Average manual count is 4 seconds.

POWER

Battery pack of 6 C size cells, Alkaline.

BATTERY LIFE

1 to 2 years under normal use.

ALERTS

Red LED alert light on handle illuminates when elevated moisture is detected.

RADIOLOGICAL

NEUTRON SOURCE

Maximum 50 mCi Americium-241/Be (1.85 GBq).

ENCAPSULATION

Double Sealed, Stainless Steel Capsule, CPN-131

SHIPPING

Radioactive Material, Special Form 7, UN3332, R.Q. Transport Index 0.2, Yellow II Label, USA DOT 7A, Type A Package.

DIMENSIONS/SHIPPING WEIGHTS

	Width	Depth	Height	Weight
Detector Assembly	7.0 in (178 mm)	9.0 in (229 mm)	2.0 in (51 mm)	7.0 lbs. (3.17 kg)
Detector Assembly In Shipping Container	27.0 in (686 mm)	12.0 in (305 mm)	12.0 in (305 mm)	24.0 lbs (10.88 kg)
Adjustable Pole In Shipping Container	5.5 in (140 mm)	5.5 in (140 mm)	5.5 ft (1.67 m)	11.0 lbs (5.0 kg)

