200X Survey Meter

Features and Benefits



- Two scales: milliRoengten/hour (mR/h) and counts/minute (CPM).
- Four linear ranges 0-0.2 mR/h; 0-2.0 mR/h; 0-20 mR/h; 0-200 mR/h.
- GM dectector saturation indication, circuitry holds meter full scale.
- Calibration check source.
- Clip-on carry strap.
- Single or dual nine-volt battery operation for 100 hours in normal background.
- Built-in audio with over-scale alarm.
- Rugged all aluminum end-window GM tube housing with aluminum end cap and removable cord.

The Texas Nuclear 200X portable survey meter from Thermo MeasureTech is designed for measuring X and gamma radiation in milliRoengten/hour (mR/h) and is able to detect medium to high alpha and beta radiation in counts per minute (CPM).

The 200X is specifically suited for industries using nuclear gauging devices. It is ideal for screening leak tests, contamination detection, monitoring of isotope shipments and packing material. Other uses include general survey work where varying types of radiation may be encountered.

The unique GM probe is capable of doing the normal contamination screening duties of an end-window GM probe, using the meter's CPM scale, yet is capable of doing area surveys like a side-window GM probe, using the meter's mR/h scale.

The probe housing is ruggedly constructed to withstand the environment of the industrial world and exceeds the durability and reliability of most end-windo GM probes available. The 200X has modern electronics that incorporate integrated circuitry and quality components all mounted in a lightweight metal housing.

Specifications

200X Survey Meter

Performance

Linear Ranges
0-0.2 mR/h
0-2.0 mR/h
0-20 mR/h
0-200 mR/h

Radiation Detected
Calibrated to .662 MeV Cs-137 gamma radiation. Able to detect the presence of medium to high energy alpha, soft beta and x-ray radiation.

Accuracy
x.1, x1, x100 ranges are within 10% of full scale and x100 range is within 15% of full scale, when calibrated to Cs-137 .662 MeV gamma radiation.

Response Time
Fast-slow selectable with 0-90% of final reading.

Range	Fast	Slow
X0.1	12 seconds	20 seconds
X1.0	1 second	8 seconds
X10	<1 second	2 seconds
X100	<1 second	1 second

Temperature Range
-20°C to +50°C (-4°F to +122°F)

Humidity Range
less than 5% change in reading from 10% to 95% RH.

ISO 9001
Certificate Number: 30085

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Hardware

Detector
End window GM tube in a ruggedized aluminum housing with removable end cap and detachable cord. Long lived halogen quenched with thin mica window.

Controls
Seven position rotary switch with ‘bat’ check, HV check, X100, X10, X1.0, X0.1 positions. A two position switch for Fast and Slow response and audio ON-OFF. A meter reset push-button switch.

Battery Life
Typically 100 hours in normal background.

High Voltage
Electronically stabilized and factory set to 500 volts. Internally adjustable to 1600 volts for adaption to other probe types.

Geotropism
± 2% of full scale.

Vibration
5g in each of three orthogonal axes at one or more frequencies from 10-33 Hz.

Construction
Two piece, all metal, splash proof, shock proof case.

Audio
Built-in speaker with audible click for each pulse detected. Over scale alarm when speaker is off.

Size
1.4 kg (3.1 lbs); 10.8 cm x 20.3 cm x 17.3 cm (4.2 x 8 x 6.8 inches), including handle and probe clip.

Connector
MHV on meter and probe.

Display
Ruggedized recessed high torque 1 mA meter with 3.35 inch scale marked 0-2.0 mR/h, 0-3000 CPM and 0-2.0 kilovolts with “bat OK.”

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