NEUTRON REM AREA MONITORING SYSTEM

Model ~ REMPUG-TA-LE

FEATURES:

- NEUTRON DOSE RATE
- MODERATED NEUTRON DETECTOR
- DIGITAL, SINGLE CHANNEL, BACKLIT
- ENGINEERING UNITS: USER SETTABLE
- DOSE RATE OR COUNT RATE – USER SETTABLE
- LIGHTWIEGHT – 7.7 INCH (19.5CM) REM BALL
- INSTALLED, HANDHELD, OR BENCH TOP
- FOUR MODES OF OPERATION –
    DOSE RATE, PEAK, TOTAL DOSE, COUNT
- ON-LINE REAL-TIME NEUTRON MONITORING
- AREA MONITORING
- HIGH LEVEL ALARM, SOLID STATE,
    NON-CONTACTING
- DATA MEASUREMENT & DISPLAY
- USB COMPUTER INTERFACE
- ALARMS: AUDIO / VISUAL, USER SETTABLE
- GAMMA REJECTION
- BATTERY
- **OPTIONAL:** DATA LOGGER
- IP 53

**REMPUG-TA-LE
WITH DISPLAY**

APPLICATION:

Neutron Area Monitoring in and around nuclear reactors, accelerators, neutron sources and generators, etc.

DESCRIPTION

The REMPUG-TA-LE provides dependable, accurate 3 LCD digital backlit readout, power supply, Alarm Module.

Four operating modes: Dose Rate, Peak, Integrated Dose Rate, Count – user settable

The energy compensated ^{3}He Probe proportional probe offers Neutron sensitivity from thermal to >100 MeV, and closely follows true REM response from thermal to >12 MeV high Gamma rejection.

The built-in anti-saturation circuit prevents the system readings from falling off scale during an over-range condition.

Overload Protection for high count saturation prevents false display of lower count rates.

**REM BALL
WITH SENSOR**

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SPECIFICATIONS

Display:	LCD, 3- digit, ,low battery indicator, PEAK, ALARM, MUTE. LED Backlight.
Engineering Units:	User Settable
Efficiency:	Typically, 10 cpm per µSv/h (100 cpm per mrem/h)
Measurement Range:	0 to 100 mSv/h (0 to 10,000 mrem/h)
Ranges:	Range can be user settable to limit display to calibrated range.

- 0.0 cps to 999 kcps
- 0.0 cpm to 99.9 Mcpm
- 0.0 Bq to 999 MBq
- 0.0 Bq/cm^2 to 999 MBq/cm^2
- 0.0 dpm to 999 Mdpm
- 0.0 µR to 999 MR
- 0 µR/h to 9.99 kR/h

- 0.0 µSv to 999 MSv
- 0.0 µSv/h to 999 Sv/h
- 0.0 µRem to 999 MRem
- 0.0 µRem/h to 9.99 kRem/h
- 0.0 c to 999 Mc (counts)
- 0.0 d to 999 Md (counts) (disintegrations)

Energy Sensitivity:	Thermal to greater than 100 MeV
Energy Response:	Inverse RPG curve for Neutrons from Thermal through to 12MeV.
Alarms (3):	Scaler alarm setpoints (adjustable over the display range).

- Audio / Visual
- Count rate;
- Exposure dose;

Gamma Rejection:	<10 cpm through 0.1 Sv/h (10 R/h) (^{137}Gs Gamma)
Controls:	Power ON-OFF; MODE: NORMAL, PEAK, Count (user settable)
	Display: Count Rate or Dose Rate (user settable)
	Alarm mute
	Alarm Reset Pushbutton
Detector:	^{3}He proportional detector, 1.6 x 2.5 cm (0.6 x 1.0 in.) [D x L], surrounded by 19.6 cm (7.7 in.) diameter high density polyethylene sphere
Response:	User settable. 1-60 seconds or Auto-Response Rate: Fast or Slow.
Power:	110-220 AC (Optional 230 AC)
Environment:	Operating range between -5° F to 122°F (-20°C and 50°C)
	0-95% humidity non-condensing.
	Splashproof
	IP 52 with audio seal option

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OPTIONAL: **Data Output:** **Data Logger**

Software Requirements Microsoft .Net 4.5 (installed on most machines by default)

Supported Operating Systems Windows 7 and higher (32-bit and 64-bit versions)

Computer Intel or compatible 1 GHz or faster processor (2 GHz or faster is recommended)

RAM Minimum of 256 MB of RAM (1 GB or more is recommended)

Disk Space At least 1 GB of free hard disk space

WEIGHT & DIMENSIONS:

Dimensions: **Display**: 3.1' 'W x 3.4" H x 1.9" L (8.0 cm x 8.5cm x 4.8 cm).

Probe: REM BALL with ^{3}He detector (1.6 cm x 2.5 cm).

Surrounded by a 19.5 em (7.7 in.) diameter polyethylene sphere with internal borated layer

Weight: Display: 0.38 lbs (174 g).

Probe: 10.2 lbs. (4.6 kg)

Construction: High impact plastic with water resistant seals