

# PORTABLE ANALYZING RATEMETER SCALER

Model Series PRS-7

Model – PRS-7 & PRS-7-DSC

## FEATURES:

- SINGLE CHANNEL ANALYZER (PRS-&7)
- DETECTS: ALPHA, BETA, GAMMA, X-RAY, TRITIUM, POSITRON, MESON, COSMIC RAYS – DEPENDING ON DETECTOR SELECTED
- POWER: AC & RECHARGEABLE BATTERY AND CHARGER
- THREE PRESETTABLE WINDOW POSITIONS
- SWITCH SELECTABLE; SIX DECADES
- COMPUTER INTERFACE: RS-232, **OPTIONAL: USB**
- CRYSTAL CONTROLLED
- USE WITH ANY T/A GM, PROPORTIONAL, OR SCINTILLATION ALPHA, BETA, GAMMA, X-RAY, NEUTRON PROBE
- COMPUTER INTERFACE RS-232; **OPTIONAL: USB**
- **IP65**

## PRS-7-DSC

- DUAL SINGLE CHANNEL ANALYZER
- 2 INDEPENDENT DETECTOR INPUTS
- COINCIDENCE CIRCUIT SIGNALS IF BOTH DETECTORS SEE A PULSE AT THE SAME TIME



PRS-7



PRS-7-DSC

## DESCRIPTION:

The **PRS-7 & PRS-7-DSC** are sturdy portable instruments designed for rugged field use.

- Both integrate and ratemeter functions.
- Single channel analyzer with three presettable windows.
- Variable high voltage 0-2000v.
- All closures are gasket sealed to result in a splash proof instrument.
- LCD style scaler readout.

The time base for integrate operation is user settable. The **PRS-7 & PRS-7-DSC** accommodate pulses from all types of detectors including scintillators, proportional and GM detectors. Six digits are incorporated into the ratemeter.

The **PRS-7 & PRS-7-DSC** provides focus on 1 or 2 isotopes even in the presence of others.

Gate times for the integrate mode may be set from 1 to 10,000 seconds. The integrate capability is particularly useful for increasing the accuracy of rate measurements and for operating optional printer.

Power switch and HV pot and other controls are designed to prevent inadvertent change. The audio output of the high level alarm is controlled by a volume mute switch.

Standard features include jack for AC adapter and serial output jack with optional USB adaptor. Yet the overall instrument, including all of these functions and battery life up to 1 week, weighs only 5 pounds.



Real-Time  
Air & Water  
Specialists



TECHNICAL ASSOCIATES

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#### SPECIFICATIONS:

- **Digital Readout:** 6 digit LCD Rate, 8 digit integrate.
- **Time Base:** Crystal controlled 1-10,000 seconds, user settable.
- **Display Modes:** Rate, Integrate.
- **Range:**  
**Usable Probes Cover Range:** 1uR/hr to 1000 R/hr; 0 to 30,000 Cps; 0.1 mRem/hr to 10 Rem/hr.
- **Alarm:** 2000 Hz audio tone with audio “mute” switch + RED LIGHT, high current relay.
- **Single Channel:** **PRS-7**
- **Dual Single Channel;** **PRS-7-DSC** – Two independent detector inputs  
**3 Switch Selectable Windows:** 2 preset (resettable) window positions plus one “variable”.
- **Analyzer/Discriminator:** 10-turn, 1000 division pot for each threshold.  
10-turn, 1000 division pot for window width.
- **Detector:**  
**Mates with T/A Probes, any GM, Proportional or Scintillation - NaI(Tl); BGO, LaBr:**  
Alpha, Beta, Gamma, Positron, X-Ray, Neutron, Tritium.
- **Detector Connector:** BNC bulkhead mount (MHV optional).
- **Detector Bias:** 0-2000V regulated and filtered.
- **Front Panel Controls:** On-Off Toggle; Alarm-Mute; Rate; Integrate; Reset;
- **Supply:** High Voltage is adjustable & repeatable with the 10 turn dial.
- **Settable scale factors allow readout in almost any units.**
- **Engineering Units:** User can input correct conversion factor and change to any units.
- **Controls:** Front Panel: On-Off, Alarm-mute, Rate, Integrate, Reset.
- **Calibration:** Digital input of calibration factor gives high precision adjustment.
- **Serial Output:** Two way, RS-232 standard, USB optional.
- **Construction:** NEMA-4X polycarbonate gasket sealed case with handle:  
Rugged / splash-proof.  
All plug in circuit cards.
- **Computer interface:** RS-232  
**OPTIONS:** USB  
Output for Digital Printer

#### POWER:

- **Power:** 105-125 volts, 50-60 Hz (220 V optional)
- **Batteries:** Rechargeable battery pack with AC Charger Adapter
- **Battery Life:** 3-5 days at 8 Hour/day



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Model – PRS-7 & PRS-7-DSC

## WEIGHT AND DIMENSIONS: - PRS-7

- **Dimensions:** 10" L x 4.1" W x 7" H (25 cm L x 10.5 cm W x 18 cm H)  
Includes handle
- **Weight:** 5 lbs (2.5kg) including batteries.
- **Options:** Alarm Relay

## WEIGHT AND DIMENSIONS: - PRS-7-DSC

- **Dimensions:** 10" L x 7" W x 7"H (25 cm L x 18 cm W x 18 cm H)  
Includes handle
- **Weight:** 8 lbs (4kg) including batteries.

## Over 50 Different T/A Probes & Sample Counter Detectors:

### Some of TA's Detector Model Numbers

A	P6-LB	F	DMU-1000
B	PAS-9	G	P-15
C	BGS-IN	H	STB-TF-6
D	COLLIMATOR	I	TS-26
E	PLS-04	J	PN-3



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## RANGE SPECIFICATIONS:

Sample of TA's Probes

PROBE	DESCRIPTION	RANGE						UNITS
<b>ALL PROBES</b>	<b>ALL PROBES</b>	<b>0.1</b>	<b>1</b>	<b>10</b>	<b>100</b>	<b>1,000</b>	<b>10,000</b>	<b>cps</b>
<b>GM</b>	Thin window Alpha-Beta, Gamma, X-ray							
<b>P-15</b>	2" dia Pancake		.02	.2	2	20	200	mR/h
<b>P6-LB</b>	Low Background		.1	1	10	100	1,000	mR/h
<b>SCINTILLATION</b>	<b>SCINTILLATION</b>							
<b>PGS-3T</b>	Low Energy Gamma			.01	.1	1	10	mR/h
<b>PGS-3I</b>	Low / Mid Energy Gamma			.03	.3	3	30	mR/h
<b>BGS-2505</b>	Low Energy BGO Probe			.01	.1	1	10	mR/h



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