



## RDS-31 S/R

### Multi-purpose Survey Meter

The new RDS-31S/R Multi-purpose Survey Meter continues the line of RADOS survey meters offering modern design and approach to radiation monitoring.

RDS-31 is a small hand held, battery operated survey instrument using an energy compensated GM-tube as primary detector. Due to its versatile functions and durability it is suited for a wide range of applications in civil defense, industrial and laboratory use etc.

RDS-31 is featuring excellent ergonomics; light weight and easy to handle, with visual and audible alarms and internal vibrator. The large LCD with Energy Save Backlight is well visible even in sunny conditions due to the illumination control.

External probes of GMP-12 series, GMP-11/15 and Multirad LLR probes: TGS, Alpha 125 and Alpha Wound can be connected to RDS-31 by cable or by additional adapter extending the capabilities of the instrument. User protection while using external probe by measuring simultaneously instrument dose rate.

#### FEATURES

- H\*(10) ambient dose equivalent dose and dose rate
- existing GMP-series external detectors can be used with suitable adapters
- new ergonomic design
- large screen, configurable backlight with automatic illumination control
- high impact durable case construction, IP-67 immersion proof
- internal memory to store measurements
- flexible histogram functions
- firmware of instrument upgradable through cable link
- configurable short cut functions



health physics

A Mirion Technologies Division

Featuring:

**RADOS**

| TECHNICAL SPECIFICATIONS:            |   |
|--------------------------------------|---|
| <b>Radiological Characteristics</b>  | <ul style="list-style-type: none"> <li>radiation detected: gamma and X-rays, 48keV...3MeV. Alpha, Beta radiation with an external probe</li> <li>detectors: one energy-compensated GM tube, energy response according to ambient dose equivalent H*(10)</li> <li>dose rate measurement range: 0.01 μSv/h...0.1 Sv/h or 1 μrem/h...10 rem/h</li> <li>dose measurement range: 0.01 μSv...10 Sv or 1 μrem...1000 rem</li> <li>resolution: three significant digits or 0.01 μSv/h on dose rate and 0.01 μSv on dose ( 1 μrem/h on dose rate and 1 μrem on dose)</li> <li>calibration accuracy: ± 5%, <sup>137</sup>Cs , calibration direction and in the calibration field, temperature +20 °C (68°F)</li> <li>dose rate linearity: ± 15% ± least significant number 0.05 μSv/h...0.1 Sv/h (5 μrem/h to 10rem/h)</li> <li>variation of the response due to photon radiation energy (R<sub>E</sub>) and angle of incidence (R<sub>E, λ</sub>): 71% &lt;R<sub>E, A</sub> &lt; 160% (48 keV...3 MeV); ± 60°</li> </ul> |
| <b>Functional Characteristics</b>    | <ul style="list-style-type: none"> <li>two buttons to operate the instrument</li> <li>configurable units: Sv(h), R(/h), with external detector Gy(/h), cps, cpm, dpm and Bq</li> <li>flexible histogram functions ( dose rate, dose, diagnostic logging depending on configuration, time stamp, optional location control for mapping and repeating room measurement analysis)</li> <li>additional histogram analyzing capabilities on CSW-software</li> <li>real time clock function</li> <li>configurable audible, visual and vibration alarm</li> <li>RF-communication and USB-communication with suitable adapter</li> <li>customized LCD display with 5 digit 14-segment floating point area and special symbols for alarm, external probe, battery, RF-communication, vibration alarm, chirp and mute</li> </ul>  |
| <b>Electrical Characteristics</b>    | <ul style="list-style-type: none"> <li>power supply: 2 AA size batteries (alkaline or NiMH)</li> <li>contacts for external power and charging of NiMH battery (charging conditions +5... +35°C)</li> <li>operation time with fresh alkaline batteries more than 4 months at background radiation at +23°C, 8 h use/24h</li> <li>operation time with fully charged NiMH batteries more than 1 month at background radiation at +23°C, 8 h use/24h. At higher/lower temperatures the operation will be shorter.</li> </ul>  |
| <b>Mechanical Characteristics</b>    | <ul style="list-style-type: none"> <li>case high impact durable plastics reinforced with glass fibre</li> <li>ergonomic design, rubber grip and cushion around the case</li> <li>enclosure class IP67 (IEC 60529), water proof including battery compartment</li> <li>dimensions: 100 x 67 x 33 mm (3.93 x 2.63 x 1.29 in)</li> <li>weight: 175 g without batteries (0.385 lb), 220 g with batteries (0.485 lb)</li> <li>wrist/neck strap</li> <li>belt clip</li> </ul>   |
| <b>Environmental Characteristics</b> | <ul style="list-style-type: none"> <li>-25°C...+60°C (-40°F to 131°F), operating temperature</li> <li>-40°C...+70°C (-40°F to 158°F), storage temperature</li> <li>relative humidity: up to 85% at +35°C (95 °F)</li> <li>fulfills the RF-immunity levels of applicable standard</li> </ul>   |
| <b>Options</b>                       | <ul style="list-style-type: none"> <li>electrical cradle or mechanical cradle e.g. for easy vehicle fixing</li> <li>table top model</li> <li>pocket/belt clip/pouch</li> </ul>  |

Connection of GMP-12 series, GMP-11/15, TGS and Alpha external probes through a suitable cable/adapter.

*NOTE: SINCE NORMS, SPECIFICATIONS AND DESIGNS ARE SUBJECT TO OCCASIONAL CHANGE, PLEASE ASK FOR CONFIRMATION OF THE INFORMATION GIVEN IN THIS PUBLICATION*



www.mirion.com  
20996078\_RDS31\_EN\_B

Mirion Technologies (MGPI) Inc  
5000 Highlands Parkway  
Suite 150  
Smyrna Georgia 30082  
USA  
T +1.770.432.2744  
F +1.770.432.9179

Mirion Technologies (MGPI) SA  
BP 1  
F-13113 Lamanon  
France  
T +33 (0) 4 90 59 59 59  
F +33 (0) 4 90 59 55 18

Mirion Technologies (RADOS) Oy  
P.O. Box 506  
FIN-20101 Turku  
Finland  
T +358 2 4684 600  
F +358 2 4684 601

Mirion Technologies (RADOS) GmbH  
Ruhstrasse 49  
D-22761 Hamburg  
Germany  
T +49 40 85193 0  
F +49 40 85193 256