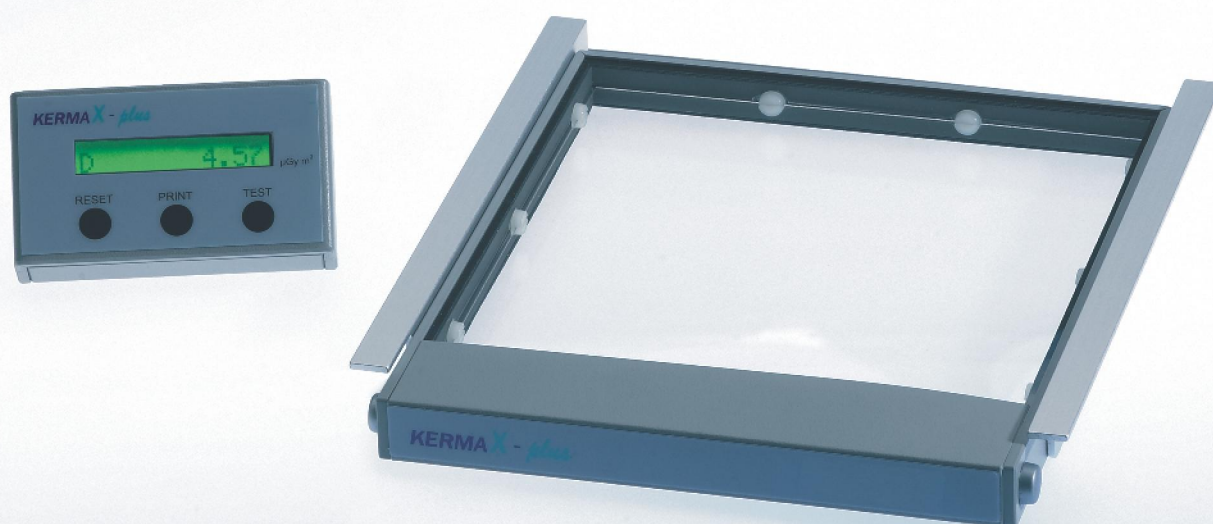


Patient Dose Monitoring and Quality Assurance
KermaX[®] plus SDP

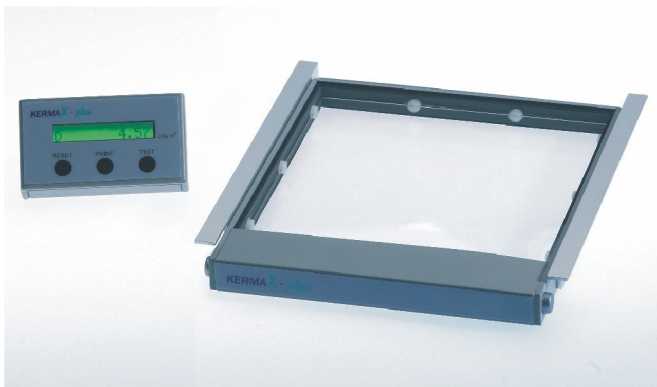


Our KermaX[®] plus SDP – is an ideal solution for a quick and convenient retrofit installation dedicated to measure DAP and DAP rate for patient dose monitoring.

- Rectangular, transparent ionization chamber with integrated electronics and an external Single Line Display Unit with a 10-digit internal background lighting LCD display;
- Measures DAP (μGym^2) and DAP rate ($\mu\text{Gym}^2/\text{s}$) simultaneously.
- Including a **RS 232 Interface** for a computer or printer interface.
- Suitable for measurements in pediatric applications due to its digital resolution of **0.01 μGym^2** .
- Easy installation due to cost effective and flexible cabling system based on telecommunication standard cables (**no high voltage cable is used**).
- Light transparency of $\geq 75 \%$.
- This measuring system fully complies with the following standards:
 - IEC 60580 “Dose area product meters”.
 - IEC 60601 “Medical Equipment - General requirements for basic safety and essential performance”

System Components

Measuring & Indication Unit



Compact measuring system consisting of a rectangular, transparent ionization chamber integrated electronics in connection with an external Single Line Display Unit with a 10-digit internal background lighting LC-Display, with test / reset and print buttons; Included is a RS 232 interface for connecting a printer or a PC (RIS / HIS) system.

Our quick and easy solution for cost-effective retrofit installations at undercouch tube systems.

Power Supply & Cabeling



- Power supply (external current supply)
EN-conformable 60601-1
- and AKP cable, 18 m (extension up to 48 m possible)
(connection measuring system - power supply)
Respect. Single Line Display Unit
- or
- AC / DC Converter

Mounting Accessories



- Adapter with accessory holder - distance between collimator rails:
176 mm - for all popular X-ray units (e.g. for **Siemens** X-ray units) or
170 mm - for all popular X-ray units (e.g. for **Philips** X-ray units)
- or
- 1 pair of rails, 176 mm (others on request)
- Optional (for the use with additional filters)
- 1 pair of extension rails
176 mm (e.g. for Siemens units) or
170 mm (e.g. for Philips units)

Upgrading Possibilites



- Interface for RIS / HIS connection with existing software.
- or
- Interface for Printer Setup:
 - Zebra LP 2844 Printer
 - Zebra LP 2824 Printer
 - Other printers available on request

KermaX® plus SDP |

Technical Specifications

Reproducibility:	< 1 % (at a constant pressure and temperature)
Energy dependence:	Better than ± 8 % related to 100 kV according to IEC 60580 from 40 to 150 kV
Dose Area Product Rate:	Minimum: 0,01 $\mu\text{Gym}^2/\text{s}$ Maximum: 3 000,00 $\mu\text{Gym}^2/\text{s}$
Maximal Measurable Dose Area Product:	99999999,99 μGym^2
Minimal Dose Resolution:	0,01 μGym^2
Linearity:	Better than ± 2 %
Active Area:	146 mm x 146 mm
Optical Transperency:	≥ 75 %
Voltage Range:	15 - 28 V DC
Cabling:	Cost effective low voltage cable based on telecommunication standards or network patch cable
Mechanical Adaption:	Can be mounted directly on the collimator by using the appropriate adaptor rails (distance 176 mm or 167 mm, others on Request)
Measuring Time:	Minimum 0.01 s
Attenuation Equivalent:	< 0.5 mm Al
Electrode Spacing:	4 mm
Chamber Voltage:	410 V ± 5 %
AC / DC Converter:	95.9 mm x 55.5 mm x 30.5 mm (L x W x H) Not suitable for installing in the collimator. Connection cable for KermaX plus: 650 mm long Connection cable (input voltage): 900 mm long Maximum current consumption: 1 A Input Voltage: 20 - 50 V DC 14 - 35 V AC When Using the AC / DC Converter it is absolutely essential that international standards and national laws are observed. NOT to be installed directly into the X-ray System.

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