EPD TruDose Electronic Dosimeter Specifications

Dose Range, IEC61526 Ed. 3 (Display & Measurement)

Hp(10)	Hp(0.07)

• **Effective Range of Dose:** 1.0 μSv to ≥ 10 Sv (0.1 mrem to ≥ 1000 rem)
• **Overload Indication:** 10 Sv/h to >50 Sv/h (1000 rem/h to >5000 rem/h)
• **Display Resolution:** 0.1 μSv to 10.00 Sv (0.01 mrem to 1000 rem), up to four decimal places
	• **Effective Range of Dose:**
	  - 500 μSv to 10 Sv , BG (50 mrem to 1000 rem, BG)
	  - 50 μSv to 10 Sv, G (5 mrem to 1000 rem, G)
	• **Overload Indication:** 10 Sv/h to >50 Sv/h (1000 rem/h to >5000 rem/h)
	• **Display Resolution:** 0.1 μSv to 10.00 Sv (0.01 mrem to 1000 rem), up to four decimal places

Dose Rate Range (Display & Measurement)

Hp(10)	Hp(0.07)
• **Effective Range of Dose Rate (IEC60846-1):** 1 μSv/h to 10 Sv/h (0.1 mrem/h to 1000 rem/h) • **Dose Rate Range of Dose (IEC61526 Ed.3):** 0.05 μSv/h to 10 Sv/h (0.005 mrem/h to 1000 rem/h) • **Display Resolution:** 0.1 μSv/h to 10.0 Sv/h (0.01 mrem/h to 1000 rem/h), up to three decimal places • **Overload Indication:** 10 Sv/h to >50 Sv/h (1000 rem/h to >5000 rem/h	• **Effective Range of Dose Rate (IEC60846-1):** 10 μSv/h to 10 Sv/h (1 mrem/h to 1000 rem/h) • **Dose Rate Range of Dose (IEC61526 Ed.3):** 1 μSv/h to 10 Sv/h (0.1 mrem/h to 1000 rem/h) • **Display Resolution:** 0.1 μSv/h to 10.0 Sv/h (0.01 mrem/h to 1000 rem/h), up to three decimal places • **Overload Indication:** 10 Sv/h to >50 Sv/h (1000 rem/h to >5000 rem/h)

On-axis Energy Response

Photon Hp(10) (Ref. ^{137}Cs)	Photon Hp(0.07) (Ref. ^{137}Cs)	Beta Hp(0.07) (Ref: ^{90}Sr)
±15% 16keV to 1.5MeV -15% to +50% 1.5MeV to 10MeV	±30% 20keV to 1.5MeV -15% to +50% 1.5MeV to 10MeV	±30% 200keV to 1.5MeV Detection of Pm-147 starts below 20cm distance

Combined Energy and Angular Response

Photon Hp(10) (Ref. ^{137}Cs)	Photon Hp(0.07) (Ref. ^{137}Cs)	Beta Hp(0.07) (Ref: ^{90}Sr)
-29% to +67% for 17keV to 6MeV, 0° to 60°	-29% to 67% for 24keV to 6MeV, 0° to 60°	-29% to 67%, 200keV to 1.5MeV, 0° to 45

Accuracy

Photon Hp(10) (Ref. ^{137}Cs)	Photon Hp(0.07) (Ref. ^{137}Cs)	Beta Hp(0.07) (Ref: ^{90}Sr)
±5%	±15%	±15%

Dose Rate Linearity

Photon Hp(10) (Ref. ^{137}Cs)	Photon Hp(0.07) (Ref. ^{137}Cs)	Beta Hp(0.07) (Ref: ^{90}Sr)
±10% Between 10Sv/h (1000rem/h) and 50Sv/h (5000 rem/h) accumulates dose at a rate >10Sv/h (>1000rem/h)		

Characteristic for Pulsed Radiation

Characteristic	Rated range	Relative response
Medical X-Ray, pulse width > 2ms, medical pulse mode		
Max pulse dose rate	0.05μSv/h to 10 Sv/h	+/-20% for pulse width >2ms (-60% at 10Sv/h in normal mode)
Max pulse dose	No limit	
Dose rate overload for dose measurement	10Sv/h to 1000Sv/h	Indication greater as at 10Sv/h
Industrial X-Ray, pulse width < 1μs		
Max pulse dose rate	No limit	
Max pulse dose	0.01μSv	
Dose overload	Each pulse > 0.01μSv and < 1μs (industrial pulse mode only)	

thermoscientific

EPD TruDose Specifications

Electrical, Mechanical, and Environmental:

Battery:

Power Supply	Single AA battery, 1.5V Alkaline or 3.6V Lithium Thionyl Chloride
Battery Life	1.5V Alkaline - 40 days continuous (110 days, assuming 8/24 hr shifts, display off after shift) 3.6V Lithium - 3.5 months continuous (9 months, assuming 8/24 hr shift, display off after shift)

Alarm:

Audible, Vibration, Visible Alarm	Audible at 97db(A) at 20cm (>80 dB(A) at 1m), Vibration alarm function, Ultra-bright flashing red LED

Communications:

Desktop/IR Reader	USB connection. Compatible with EPD TruDose Electronic Dosimeter and EPD Mk2 models
Bluetooth	Bluetooth Low Energy (BLE) up to 30 meters range from EPD to receiver

Physical Dimensions:

Weight	0.106kg (0.233 lbs) with lithium battery and clip
Dimensions	86mm x 63mm x 21mm (3.37 inches x 2.48 inches xx 0.83 inches)

Environmental:

Operating Temperature	-20℃ to +50℃
Humidity	20% to 90% RH, non-condensing
IP Rating	EPD TruDose (G) meets IP-67, EPD TruDose (BG) meets IP-65
Warranty	1 Year

Accessories and Options

EPD TruDose Desktop Reader
- Compatible with EPD TruDose and EPD Mk2 Series

EPD TruDose IR Reader
- Compatible with EPD TruDose Electronic Dosimeter and EPD Mk2 Series

Telemetry Accessories
- Telemetry Software

Please contact your Sales Representative for EPD TruDose Configuration information. Factory configurable options include:

- Case Color
- Customizable Battery Hatch
- Specification Label
- Battery Type
- Approval Label
- Function: Standard – Secure, 15% Gain, Telemetry + 10% gain, or custom
- Display & User Interface Settings
- Alarm Thresholds
- Alarm Configurations

EPD TruDose Electronic Dosimeter Ordering Information

EPD TruDose Electronic Dosimeter

Version	Without Telemetry	With Telemetry
Gamma	✓	✓
Beta-Gamma	✓	✓

Accessories

Part Number	Description
436001000	EPD TruDose Desktop Reader (Software not included)
436001001	EPD TruDose Desktop Reader (EasyEPD3 Software included)
436001100	EPD TruDose IrDA Reader (Software not included)
436001101	EPD TruDose IrDA Reader (EasyEPD3 Software included)
43100100113	Front Clip (Supplied with EPD)
43100100106	TruDose Lanyard (Supplied with EPD)

Find out more at **thermofisher.com/epdtrudose**

ThermoFisher
SCIENTIFIC