

thermo scientific



When worker safety is mission critical.

Thermo Scientific EPD TruDose
Electronic Dosimeter



ThermoFisher
SCIENTIFIC

For over 25 years, Thermo Scientific EPD's have set the standard for trusted radiological performance in electronic personal dosimetry. Building on that history, our next generation electronic personal dosimeter, the Thermo Scientific™ EPD TruDose™ Electronic Dosimeter, delivers the performance and reliability you have grown to trust with the modern features you expect.

Sensitive. Simple. Safe.

The Thermo Scientific EPD TruDose Electronic Dosimeter delivers unparalleled real-time dose reading improves your employees' safety and streamlines workplace efficiency by providing ultra-precise dosage information.



Uncompromised Radiological Performance

- Improved dose rate range
- Unprecedented sensitivity, at lower dose rates provides assurance in the accuracy of exposure
- Improved pulsed field detection
- Multi-detector technology measuring both beta and gamma (BG version) or neutron and gamma (NG version)
- IP65 (EPD TruDose BG) and IP67 (EPD TruDose G and NG) provides improved protection from dust and water
- Integrated electromagnetic shielding improves tolerance to electro-magnetic fields

Increased User Efficiency

- Integrated Bluetooth Low Energy (BLE) requires no additional module 
- Real time clock simplifies troubleshooting and event documentation
- Improved IrDA data transfer speeds enables increased throughput at checkpoints
- Added warning thresholds enable users to react before an alarm condition arises

Utilizing RadSight Access, a team of workers can be monitored and their dose tracked utilizing RadSight Live.



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

A wide range of options are available to meet your telemetry needs.

Telemetry

- Telemetry Software



EPD Wall Rack

- Provides convenient storage for Electronic Personal Dosimeters (EPDs).
- Each rack holds 10 EPDs
- Racks can be stacked side-by-side to hold any number of dosimeters

Simplified User Experience

- Easy to read-and-react graphical display
- Configurable, redundant and proactive messaging
- Simple menu structure

Measurement Display Layout

Chrome Left	Numeric Area	Units Area	Chrome Right
		Measurement Identity Area	

Example Dose Display



Example Rate Display



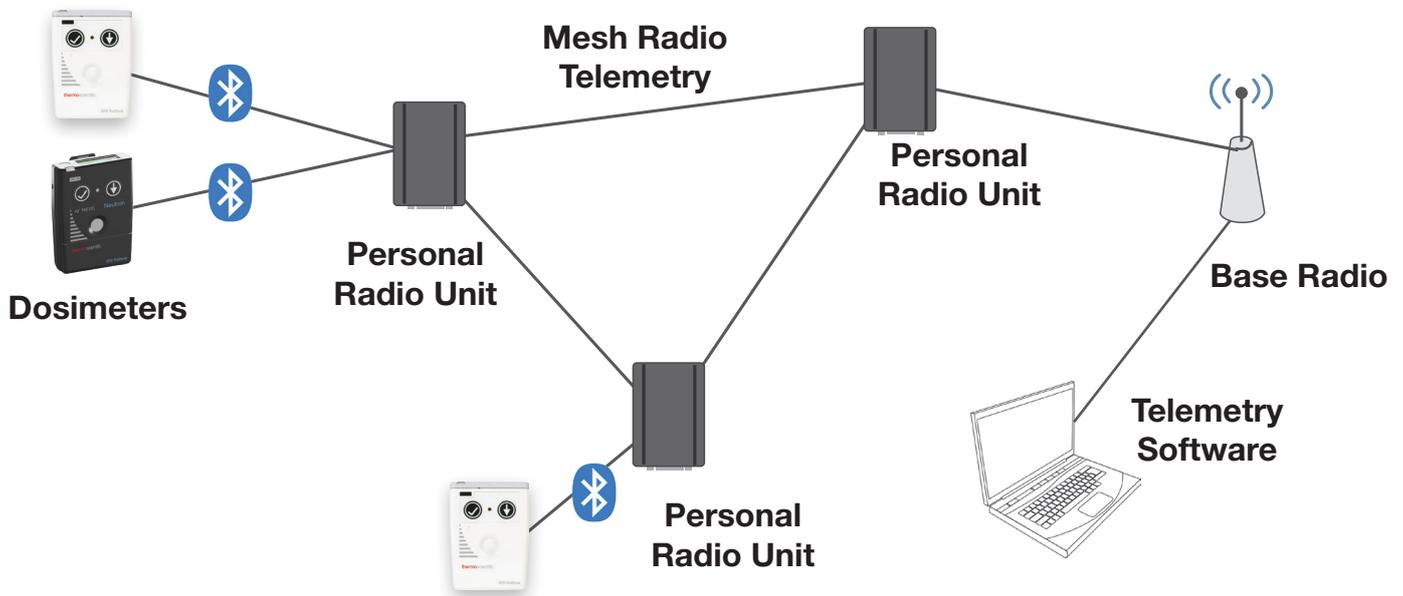
Wearing the EPD TruDose Electronic Dosimeter



Note that the buttons should be facing outwards.

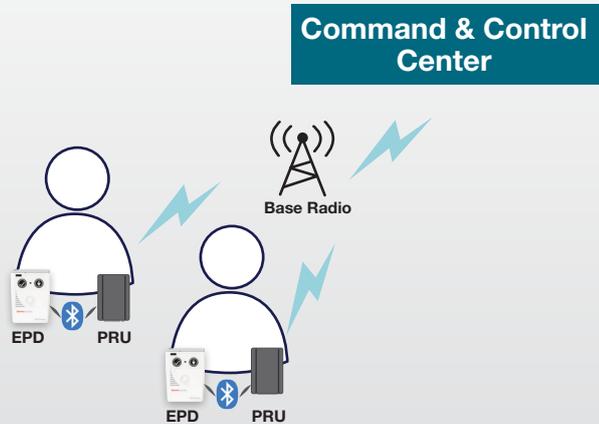
Bluetooth Low Energy Telemetry

- Integrated telemetry unit requires no additional module
- Real time protection in most critical areas of facility
- Transmitters can receive data from multiple units



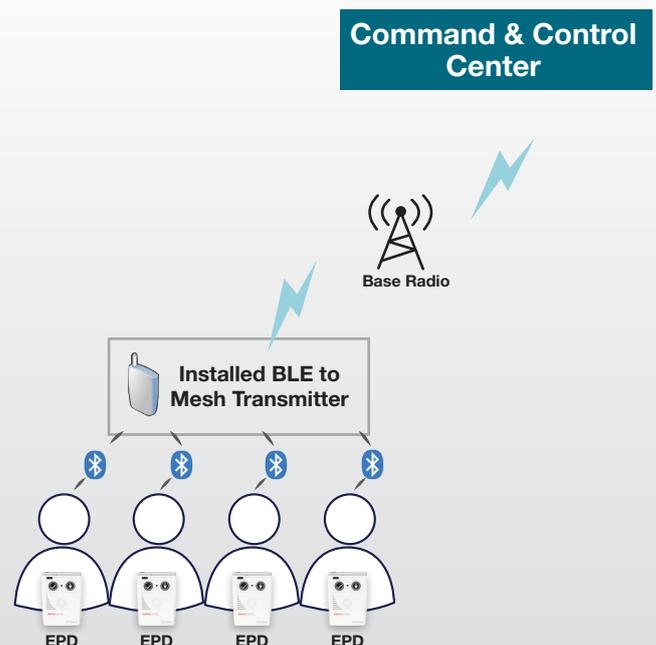
Option 1: Personal Radio Unit (PRU)

- Wear Personal Radio Unit (transmitter) on the body (pocket, belt)



Option 2: Mesh System

- Install network of local area transmitters



EPD TruDose Radiological, Measurement, Display, Storage, Electrical, Mechanical and Environmental Properties

Detector

EPD TruDose G (Gamma)	2-PIN Silicon Diodes
EPD TruDose BG (Beta/Gamma)	3-PIN Silicon Diodes
EPD TruDose NG (Neutron/Gamma)	3-PIN Silicon Diodes

Radiological

Hp(10)	Hp(07)
X, γ rays, (G, BG, NG) 16 keV to 10 MeV	X, γ rays, (G, BG) 20 keV to 10 MeV
Neutron (NG) Thermic to 20 MeV	β rays, (BG) 200 keV to 1.5 MeV (Averaged Beta Energy)

Display and Measurement

Measurement Dose Display and Storage Range	0 μ Sv to \geq 10 Sv (G, BG, NG)
Measurement Dose Rate Display and Storage Range	0 μ Sv/h to \geq 10 Sv/h (G, BG) 0 μ Sv/h to \geq 2 Sv/h (NG)
Dose Profile History	Stores up to 1792 records

Accuracy

G/BG/NG	G/BG	BG	NG
Photon Hp(10) (Ref. ^{137}Cs) $\pm 5\%$	Photon Hp(0.07) (Ref. ^{137}Cs) G $\pm 5\%$ / BG $\pm 10\%$	Beta Hp(0.07) (Ref. $^{90}\text{Sr}^{\text{a}}$) $\pm 15\%$	Neutron Hp(10) (Ref. $\text{AmBe}^{\text{b,c}}$) $\pm 15\%$

Battery

Power supply	Single AA battery, 1.5 V Alkaline, 1.2 V NiMH or 3.6 V Lithium Thionyl Chloride
Battery life	1.5 V Alkaline: 40 days for continues operation (110 days for 8/24 h shifts) 3.6 V Lithium: 3.5 months for continues operation (9 months for 8/24 h shifts)

Alarm

Audible, vibration, visible alarm	Audible at 97db(A) at 20cm (>80 dB(A) at 1m), vibration alarm function, red flashing LED
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Physical

Weight	B/BG: 106 g (3.8 oz.) with alkaline battery and clip NG: 114 g (4.0 oz.) with alkaline battery and clip
Size	86mm x 63mm x 21mm (3.37 inches x 2.48 inches x 0.83 inches)

Communications

Desktop/IR reader	USB connection. Compatible with EPD TruDose Electronic Dosimeter and EPD MK2 models
Bluetooth	Low Energy (BLE) up to 20 meters range from EPD to receiver

Environment

Operating temperature	-20°C to +50°C
Humidity	20% to 90% RH
IP rating	EPD TruDose (G, NG) meets IP-67, EPD TruDose (BG) meets IP-65

a) Sr-90 dose response at 0° is 95%, b) AmBe dose response at 0° is 129%, c) Cf-252 dose response at 0° is 100%

Accessories

Part number	Description
436001001	EPD TruDose Desktop Reader (EasyEPD3 Software included)
436001101	EPD TruDose IrDA Reader (EasyEPD3 Software included)
43100100113	Front clip
4360020	ER3 Reader - Wall mountable access control reader
4360021	OEM ER3 Reader - Access control reader for integration into other systems
43100100106	EPD TruDose lanyard
4350002	TruDose Test Adapter, Ba-133, 370 kBq
EPD/1/31540/000	WR-1 Wall Rack, holds 10 EPD's.

Customize your configuration

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

- Case color
- Specification label
- Approval label

User settable customizations

- Function: Standard – Secure, 15% Gain, Telemetry + 10% gain, or custom
- Display & user interface settings
- Dose and dose rate alarm thresholds
- Alarm configurations

Find out more at thermofisher.com/epdtrudose