EPD TruDose

Electronic Personal Dosimeter

personal monitoring radiation

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.

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.

Simplified User Experience

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

Label Recess
- Place for color coding populations of EPDs using COTS "dots"

Ultra Bright LED
- Visible from the top and the front of the EPD

LCD Display

Sounder

Navigate Button

Infrared Interface

Select Button

Beta Window
- Covers the β detector (EPD TruDose BG unit only)

Detector Marking
- Indicates EPD type

Battery Compartment
- Front load, secured with screws in the back

Integrated Telemetry

Measurement Display Layout

Chrome Left	Numeric Area	Units Area	Chrome Right
		Measurement Identity Area	

Example Dose Display

256.3 μSv Hp10
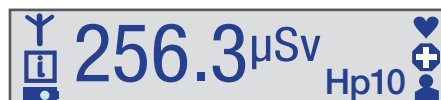
Example Rate Display

242.0 mrem/h Hp10
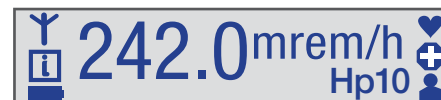
EPD TruDose

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

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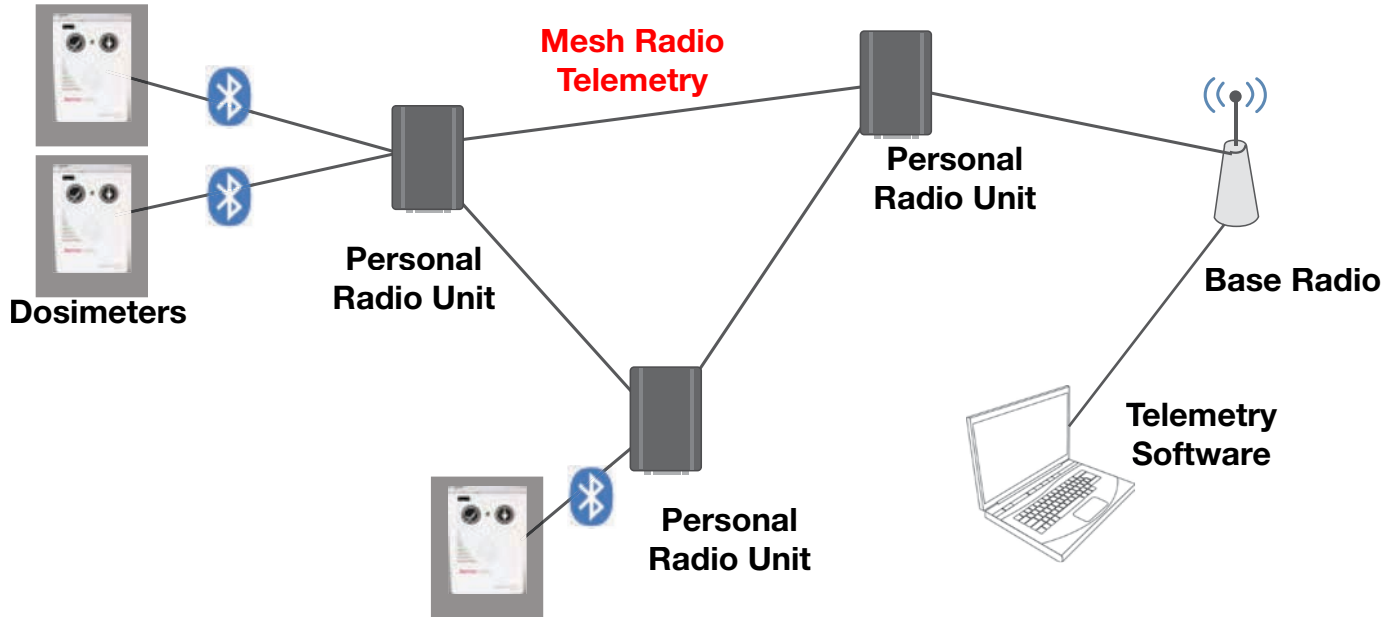
Telemetry
- Telemetry Software

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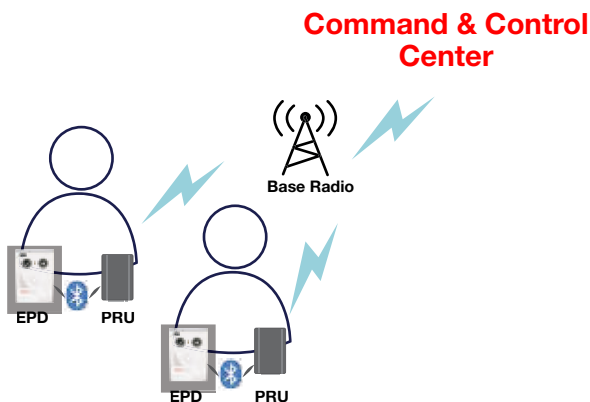- Racks can be stacked side-by-side to hold any number of dosimeters

EPD TruDose

Bluetooth Low Energy Telemetry

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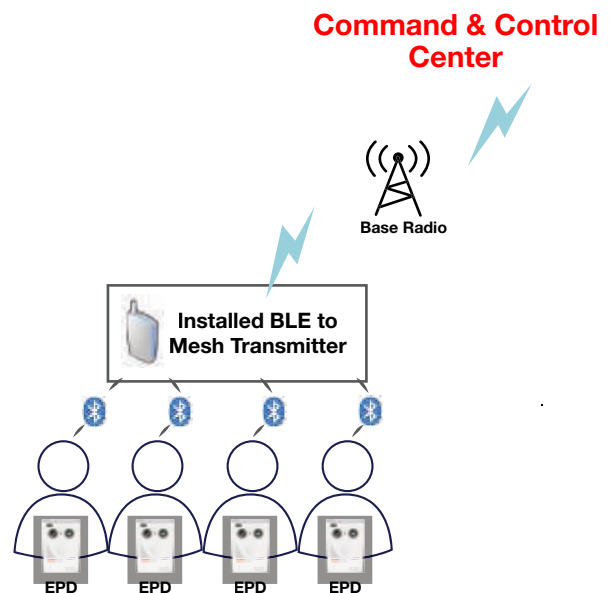- Transmitters can receive data from multiple units

Mesh Radio Telemetry

Dosimeters

Personal Radio Unit

Personal Radio Unit

Personal Radio Unit

Base Radio

Telemetry Software

Option 1: Personal Radio Unit (PRU)

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

Command & Control Center

Base Radio

EPD   PRU

EPD   PRU

Option 2: Mesh System

- **Install network of local area transmitters**

Command & Control Center

Base Radio

Installed BLE to Mesh Transmitter

EPD   EPD   EPD   EPD

EPD TruDose

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, $_v$ rays, (G, BG, NG) 16 keV to 10 MeV Neutron (NG) Thermic to 20 MeV	X, $_v$ rays, (G, BG) 20 keV to 10 MeV β rays, (BG) 200 keV to 1.5 MeV (Averaged Beta Energy)
Display and Measurement	
Measurement Dose Display and Storage Range	0 µSv to . 10 Sv (G, BG, NG)
Measurement Dose Rate Display and Storage Range	0 µSv /h to ≥ 10 Sv/h (G, BG) 0 µSv /h to ≥ 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)	Photon Hp(0.07) (Ref. [137]Cs)	Beta Hp(0.07) (Ref. [90]Sr[a])	Neutron Hp(10) (Ref. AmBe[b)c])
±5%	G ±5% / BG ±10%	±15%	±15%

Battery	
Power supply	Single AA battery, 1.5 V Alkaline, 1.2V 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
Physical	
Weight	114 g (4 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

Customize your configuration
- Function: Standard – Secure, 15% Gain, Telemetry + 10% gain, or custom
- Dose and dose rate alarm thresholds
- Alarm Configurations