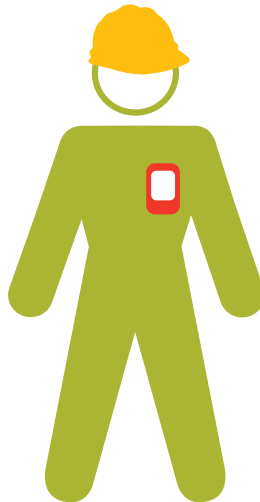


Our Extended Personal Electronic Dosimeter (PED) Family





Tracerco's Award Winning Radiation Monitors and Servicing business unit provides a range of products and services accredited to ISO9001:2008 and EN80079-34 international standards together with our laboratory in Malaysia having MS ISO/IEC 17025 accreditation. With items both for sale and hire and a repair, testing and re-calibration service, there's a solution for every radiation monitoring need. Our range of portable radiation monitors provide both intrinsically safe and standard instrumentation with an established track record for reliable operation in a wide range of environments. The calibration and repair service includes standard 3-5 day turnaround with an express option also available. As well as our own range of instruments our technicians are also trained to calibrate and repair other manufacturers' instruments.



Tracerco, part of Johnson Matthey Plc, is a world leading technology company that provides unique and specialised detection, diagnostic and measurement solutions.

Since its inception over 50 years ago, Tracerco has focused on innovation in detection and tracer technologies. Our scientists and engineers have been at the forefront of the development of many groundbreaking measurement, detection, analytical and diagnostic technologies.

Our business excellence is evidenced by the international recognition our products and services have received and we have over 3,000 customers worldwide who look to Tracerco for high quality products and continuous innovation. The majority of our people are in technical roles and are highly qualified with over 10% dedicated to

R&D. The R&D team covers a broad range of disciplines including advanced chemistry, physics, electronics, software and instrument design.

In addition to our central resources, Tracerco has an extensive network of 32 overseas regional offices, laboratories and calibration facilities which allow us to deliver local service to our global customers supporting our products and services anywhere in the world.

Tracerco™ Personal Electronic Dosimeter (PED) - A solution for every situation

Our latest product range for radiation monitoring is an extended family of PEDs that deliver exceptional performance across a wide range of environments and applications.

Tracerco has designed the PEDs to be the easiest personal radiation monitors on the market to use and understand. Everything on the devices has

been designed with the user in mind. The display system features radiation graph measurements and a simple diagram of a person who fills with colour, depending on the dose of radiation received. All of our PEDs include weather, shock and drop proof housings, a smooth clean design and simple to use software.



PED-IS

The PED-IS is an intrinsically safe (IS) personal dosimeter which is perfect for both radiation specialists and those who do not work with radiation on a daily basis. It is safe to use in potentially explosive environments and it is robust and reliable, making it ideal for challenging conditions.

The benefits of using the PED-IS are:

- It is intrinsically safe so there is no need for a hot work permit.
- The dosimeter has one of the largest memories on the market, which means it reduces the risk of radiation exposure data being overwritten when the memory is full.
- The dosimeter is easy to read with a large AMOLED display screen.
- Icons and one touch operation of the dosimeter means it is simple to use and there is no need to continually refer to the user manual.
- The dosimeter is very flexible as you can choose from 3 radiation measurement modes and four different radiation alarm settings.
- You can use the dosimeter for measuring radiation exposure in all weathers due to the ingress protection rating.
- You can wear the dosimeter several ways as the screen can be flipped.



The PED-IS is suitable for:

- Emergency Services & First Responders (CBRNe)
- Oil and Gas
- Nuclear
- Mining
- Medical & Life Sciences
- NDT.

PED Blue

The PED Blue is a high quality personal dosimeter, featuring the same design and features as the PED-IS, in a lighter weight, non-IS model. The device can be charged with a direct micro USB connection, giving greater flexibility and removing the need for a charging dock. The PED Blue can also be configured to use either 2 or 4 dose alarm levels, this is customisable through free of charge DoseVision™ software.

The benefits of using the PED Blue are:

- Robust and easy to use.
- Direct micro USB connection for greater flexibility.
- Large, clear, easy to read display.
- Lighter weight - suited to more applications.
- DoseVision™ software - supplied free of charge.
- IP67 rated.
- Simple one button operation.

The PED Blue is suitable for:

- Emergency Services & First Responders (CBRNe)
- Medical & Life Sciences
- Nuclear
- NDT
- Industrial
- Oil and Gas Safe Zones.



PED+

The PED+ can be used as both a PED and a handheld dose rate survey meter. The PED+ also incorporates a number of other additional features including, Bluetooth, GPS and pop-up message alarms.

Handheld mode

- Shows readings in dose rate (Sv or rem) and displays a live trend graph to give a real time visual depiction of measured activity.
- Measurement is corrected for use off body. The personal accumulated dose is paused.
- Dose rate data is logged during off body mode to allow data review using the free of charge DoseVision™ software.

Bluetooth

- Inbuilt Bluetooth module which is supported by an android mobile application - DoseVision™ Live.
- Allows up to 7 PED+ devices to be monitored live, with an overview of each connected device shown.

GPS Data Logging

- The PED+ allows location data to be logged to the device alongside dose and dose rate data and can be viewed using DoseVision™.

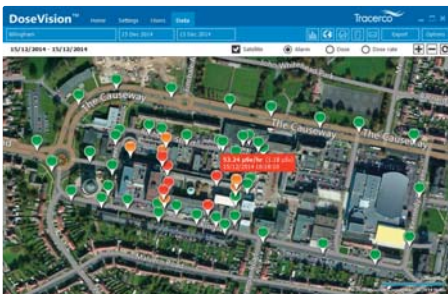


Pop-up Message Alarm

- Pop-up message display on alarm threshold giving the worker clear instructions.
- Reduces training burden and the need to remember procedures.

The PED+ is suitable for:

- NDT
- Emergency Services & First Responders (CBRNe)
- Border Controls
- Medical & Life Sciences
- Oil and Gas Safe Zones
- Nuclear.



PED Family Specification

Radiation detected	X-rays and gamma rays in range 33 keV to 1332 keV.
Detector	Single energy compensated Geiger Müller tube.
Dose rate range	Bar graph display 0-100 mSv/h. Digital numeric display 0-100 mSv/h.
Accumulated dose range	Dose "Man" display 0-10 Sv. Digital numeric display 0-10 Sv.
Peak radiation dose rate	Digital numeric display 0-100 mSv/h.
Battery	Rechargeable lithium ion. 300 hours run-time typical. Recharge via standard 5V micro USB connection. Can be charged from PC.
Memory	125,000 data point capacity. Serial non-volatile memory. 10 year data retention.
Units	Sieverts or Rem (may be selected in DoseVision™ software).
Operating temperature range	-20°C to 50°C.
Ingress protection rating	IP67 (dust tight and can withstand immersion in water at depth of 1m).
Hazardous area certification (PED-IS only)	ATEX EU directive 94/9/EC Safe for use in Explosive Atmosphere Zones 0, 1, and 2 ATEX Coding Ex II 1G Equipment code Ex ia IIC T4 Ga (-20°C < Ta < 50°C) ATEX Certificate No Baseefa 11ATEX0045 IECEx Certificate No. IECEx BAS 11.0027. FM approved for Class I Div I Groups ABCD Ta = 50°C and Class I Zone 0 IIC T4.
Low battery indication	On 8 hours available life left.
Humidity range	Up to 95%.
Case material	Shock, vibration and drop resistant polymers. PED-IS: Additional antistatic surface properties.
Standard compliance	BS EN 61526:2013 - "Radiation protection instrumentation - Measurement of personal dose equivalents Hp(10) and Hp(0.07) for X, gamma, neutron and beta radiations - Direct reading personal dose equivalent meters" EN55011:2009+A1:2010 - "Industrial, scientific and medical equipment. Radio-frequency disturbance characteristics. Limits and methods of measurement".

DoseVision™ Software and DoseVision™ Live

DoseVision™

DoseVision™, the free of charge software interface for the PED-IS, PED Blue and PED+ has been specifically designed and developed to be simple, interactive and intuitive to use. DoseVision™ allows users to set alarm levels, create reports, assign users to the PED and download and analyse data. Tracerco's PEDs have been designed to 'Keep Things Simple' and this is reflected in the software.

Benefits of the software include:

- View dose rate, dose and accumulated dose data.
- Highlight peak dose rates.
- Quick task data viewer.
- Data export option and report generation.
- Easily upgrade device firmware.
- Password protection option so that data and alarm levels can be maintained at administration level.

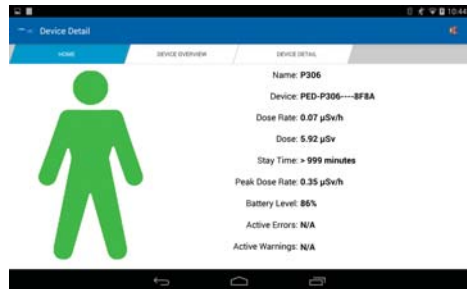
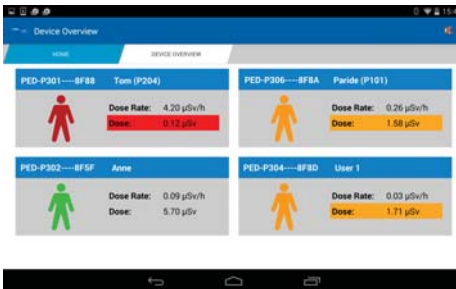
- Software and firmware updates available free of charge from our website.
- Simple management of PED users.
- GPS data logging when using PED+.

DoseVision™ Live

DoseVision™ Live is the new Android mobile application for use with the PED+. The app enables users to connect to up to 7 PED+ devices using the inbuilt Bluetooth module and monitor workers radiation dose in real time. The app also displays live status updates including battery life, stay time and peak rate.

Benefits of DoseVision™ Live include:

- Simple, Bluetooth connectivity.
- Live dose data.
- Can monitor up to 7 PED+ devices.
- Live status updates.



PED-IS, PED Blue and PED+ Matrix

	PED-IS	PED Blue	PED+
PEDs			
Dose rate, Accumulated Dose, Stay time and Peak Dose Rate	✓	✓	✓
Sv or Rem display units	✓	✓	✓
Extra Dose alarm option (4 instead of 2 as standard)	X	✓	✓
LED, Vibration and Audio alarm alerts	✓	✓	✓
Data logging	✓	✓	✓
Task specific measurements	✓	✓	✓
Low battery warning	✓	✓	✓
Activity sounder	✓	✓	✓
Multiple languages	✓	✓	✓
Hazardous area approved	✓	X	X
Charging and PC connection via dock	✓	X	X
Charging and PC connection direct via micro USB	X	✓	✓
Changeable Displays	X	✓	✓
Customisable on-screen messages for alarms	X	X	✓
Bluetooth connectivity	X	X	✓
Handheld survey meter mode	X	X	✓
Inbuilt GPS measurement and location data-logging	X	X	✓
Wireless charging via inductive charger	X	X	✓
DoseVision™ PC software			
Download and Reset accumulated data on PED	✓	✓	✓
Configure alarm levels	✓	✓	✓
Select number of dose alarms	X	✓	✓
Set PED date and time	✓	✓	✓
Multiple languages	✓	✓	✓
Password protection to restrict access to administrator functions	✓	✓	✓
Manage and create user profiles	✓	✓	✓
Generate graphs and dose reports	✓	✓	✓
Display location specific dose data on a map	X	X	✓
Enable/disable text based message alarms	X	X	✓
Customised text based message alarms	X	X	✓
DoseVision™ Live Android app			
Connect to up to 7 PED+ devices simultaneously	X	X	✓
Display dose, dose rate and alarm status for all connected devices	X	X	✓
Request device specific information such as battery level and stay time	X	X	✓
Visual indication of alarms status	X	X	✓
Audible indication of any alarms raised by connected devices	X	X	✓
Mute function for active alarms	X	X	✓

Radiation Monitor Accessories

Our Radiation Monitors can be supplied with accessories on request. We have a number of accessories available to assist with carrying, storing and using your monitors.

- Transit case
- Car charger (pictured)
- Lanyard
- Desktop Dock (supplied as standard with the PED-IS only)
- Portable Dock - PED-IS only (pictured)
- Travel Charger (pictured)
- Protective leather holder (pictured)
- Anti-static pouch (pictured)



Travel Charger



Portable Dock



Car charger



Protective leather holder



Anti-static pouch

Calibration, Hire, Repair

Tracerco provides a fast, efficient and professional calibration service for all types of radiation monitors. We have established monitor repair facilities where trained and experienced staff carry out quick and effective repairs. Tracerco also offer a wide range of monitoring instruments for hire.

For further details please contact:

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