occuity

PM1 Pachymeter

Ophthalmic Series

MAR-PM1-BRO - 002.0

PM1 Pachymeter

The first of Occuity's revolutionary handheld optical ophthalmic devices, the PM1 Pachymeter allows central corneal thickness measurements to be taken in seconds.

To take a measurement, the operator simply touches the screen to put the pachymeter in scanning mode and holds it up to the patient's eye. The PM1's advanced Precision Optical Technology provides feedback to help the operator to position the device correctly. Once aligned the PM1 captures data hundreds of times per second before calculating and displaying a precise CCT measurement.

There is no need to anaesthetise or touch the eye, reducing the risk of infection transmission and making the whole process quick and safe for both the operator and subject.

Measure **corneal thickness...**
in seconds

Non-contact
No need to anesthetise or touch the eye - improving patient experience

Handheld
Desktop capability, handheld utility

Easy to Operate
The PM1 requires no training

Reduced Chair Time
Results in just a few seconds

Safe
Significantly reduced risk of disease transmission and injury

Accurate
Measure corneal thickness accurately, reliably and repeatably

Cost Effective
Desktop performance, handheld pricing

Wireless Charging
Ready when you need it

No Consumables
No waste, no waiting

Features & Benefits

Non-contact

A great clinician and patient experience

The PM1's non-contact capabilities make it totally pain-free, requiring no anaesthetic drops and delivering a comfortable experience for both the clinician and the patient.

Accurate

Measure corneal thickness, accurately, reliably and repeatably

The PM1 delivers reliable, repeatable CCT measurements with a target accuracy of ± 10 microns.

Handheld

Desktop capability, handheld utility

Weighing 345g and measuring just 17.5cm in length, the PM1's compact, ergonomic design ensures it is comfortable to operate whilst offering convenient portability and storage.

Reduced Chair Time

Results in just a few seconds

As the PM1 is non-contacting, there is no need to wait for anaesthetic eye drops to take effect. This significantly reduces the overall time it takes to make a measurement.

Easy to Operate

Intuitive design means no training is required

The PM1's touchscreen interface has been thoughtfully designed making it easy and intuitive to use. Clinical staff and technicians can become proficient with just a few minutes of practice.

Safe

Reduced risk of disease transmission and injury

With its generous working distance, the PM1 never needs to touch the eye – significantly reducing the potential risk of cross infection and accidental damage to the cornea. In particular, the PM1's non-contact capability enhances COVID-19 safety.

Precision Optical System

The Occuity PM1 utilises confocal microscopy to project a diffraction-limited spot of light into the eye. An intensity peak is generated when the spot passes through and interacts with either the anterior or posterior cornea. By analysing the distance between the intensity peaks the PM1 can accurately calculate the thickness of the cornea.

To ensure precision, the PM1 takes 200 scans per second. Following these scans, it presents the measurement with an accompanying confidence percentage, indicating the reliability of the data. The operator then takes two additional measurements, before the PM1 displays an average measurement and its standard error.

Occuity's patented optical technology ensures that in addition to being accurate, the PM1 is also compact and very cost-effective, making it an advanced yet accessible tool in eye health diagnostics.

No Consumables

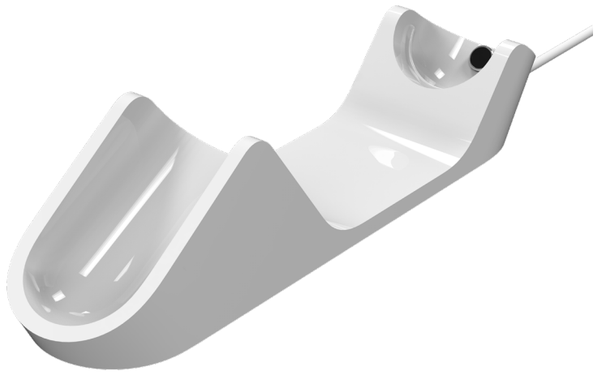
No waste, no waiting

Removing the need to contact the eye, removes the need for anaesthetic eye drops, waiting and cleaning times. This reduces costs, waste, downtime, and the risk of damaging equipment through cleaning. The PM1 was designed with sustainability in mind.

Wireless Charging

Ready when you need it

The Occuity PM1 will always be ready thanks to the innovative wireless charging cradle. Once placed back on the cradle, the battery will charge automatically. The cradle also contains a built-in reference artefact so the device can automatically perform a self-check when required giving confidence in its reliable operation.



Cost Effective

Desktop performance, handheld pricing

Enjoy the accurate measuring and non-contact capabilities of expensive optical desktop devices at a price point comparable to existing contacting ultrasound devices.

Clinically Proven

"The PM1 pachymeter shows excellent precision for CCT measurements across a range of corneal thicknesses in normal eyes and provides a safe and easy-to-use alternative to ultrasound pachymetry."

Ophthalmic and Physiological Optics
Journal of the College of Optometrists

View Clinical Trial

occuity

Watch Video

Visit the Occutiy website for more

The Occuity PM1 Pachymeter makes it easier and safer to measure central corneal thickness in just a few seconds.

Comparison

	Occuity PM1	Ultrasound Pachymeters
Technology	Optical	Ultrasound
Contact	Non-contact	Multiple contacts of the cornea
Total Measurement Time	Full measurement in seconds	Full process takes several minutes
Risk	Significantly reduced risk of disease transmission and injury	Risk of accidental corneal damage & infection transmission
Cleaning/ Disinfecting	Minimal cleaning required	Disinfecting is required between every patient
Consumables	None	Anaesthetic drops, cleansing wipes, replacement probes
Operators	Healthcare professionals	Specialist trained clinicians only
Training	Intuitive design with no training required	Specialist device and anaesthetic training required
Display	TFT touchscreen display	Generally basic LCD screens

occuity

Technical Specification*

Model	PM1
Device Type	Pachymeter
Overall dimensions	17.5 cm x 15 cm x 4.5 cm
Weight	345 g
Display	3.46” Colour LCD
Laser source	Group 1 (BS EN 15004-2:2007)
Measurement units	µm
CCT measurement range	300 µm to 800 µm
CCT measurement accuracy	± 10 µm
Scanning frequency	200 scans per second
Measurement time	< 10 s
Measurement resolution	1 µm
Battery	Li-ion . 7.4 V . 1050 mAhr
Charger	Input: 100-240 V at 50/60 Hz (Universal)
Charging Time	Up to 4 hours
Auto power-off when idle	20 minutes

About Occuity

Founded in 2019, Occuity is a UK-based medical technology company specialising in the research, design, and production of handheld non-contact optical instruments for use in healthcare, diagnostics, and monitoring.

Optometry & Ophthalmology

Occuity are developing a range of devices within our Ophthalmic series and our first device, the Occuity PM1, is the world’s first handheld, non-contact, optical pachymeter. Building upon the underlying technology in the PM1, our pipeline of future products will enable other measurements within the eye including axial length, pupillometry and keratometry for use in both human and veterinary optometry.

Disease Screening

Building upon our existing technology, Occuity’s disease screening products are planned to make it easier and cheaper to screen for diseases such as diabetes and Alzheimer’s in non-clinical settings such as high street opticians and care homes.

Disease Monitoring

Occuity plan to deliver the Occuity Indigo - the world’s first non-invasive, non-contact glucose meter which can determine blood glucose levels by measuring subtle changes within the anterior chamber of the eye.

Find Out More - www.occuity.com

occuity

Manufactured in England

Find Out More:

www.occuity.com/pm1

Contact Details

sales@occuity.com

www.occuity.com

+44 (0)118 350 0800

Address

Occuity Ltd

The Blade,

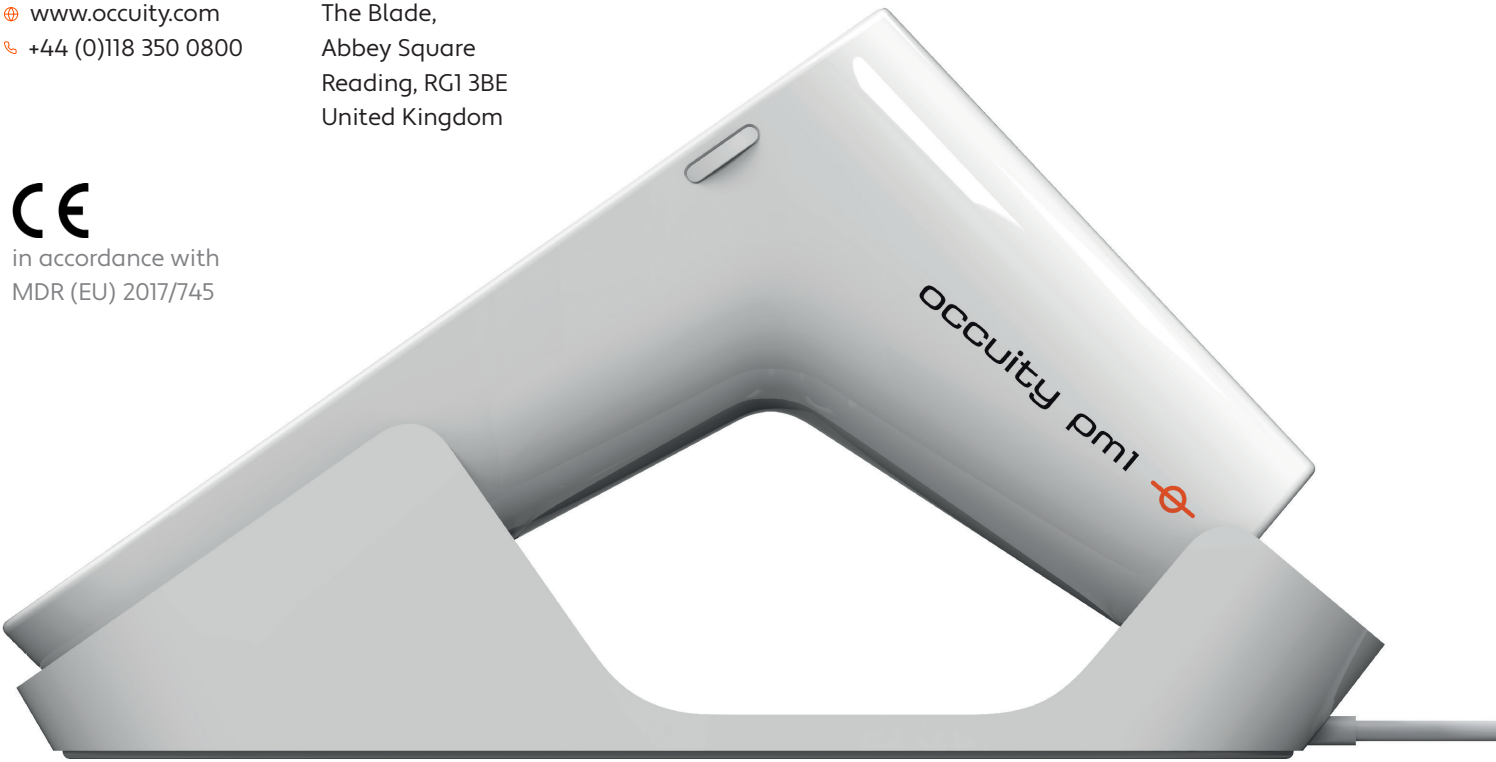
Abbey Square

Reading, RG1 3BE

United Kingdom

CE

in accordance with
MDR (EU) 2017/745



MAR-PM1-BRO - 002.0

Occuity Ltd. The Blade, Abbey Square, Reading, RG1 3BE

Product: PM1 Pachymeter

The availability of products and features may vary by country. Occuity reserves the right to change product specifications and design. All information is valid at the time of production (01/23).

EN ISO 13485:2016 Certified

©2024 Occuity Ltd. All Rights Reserved. All product names appearing on this document are trademarks or registered trademarks owned, licensed to, promoted or distributed by Occuity Ltd, its subsidiaries or affiliates.

Legal: 'Occuity', 'PM1' and the fiducial logo are registered trademarks of Occuity Ltd. They may not be reproduced without the written permission of Occuity Ltd.