

Keeler Tonometers

let's fight glaucoma

Keeler

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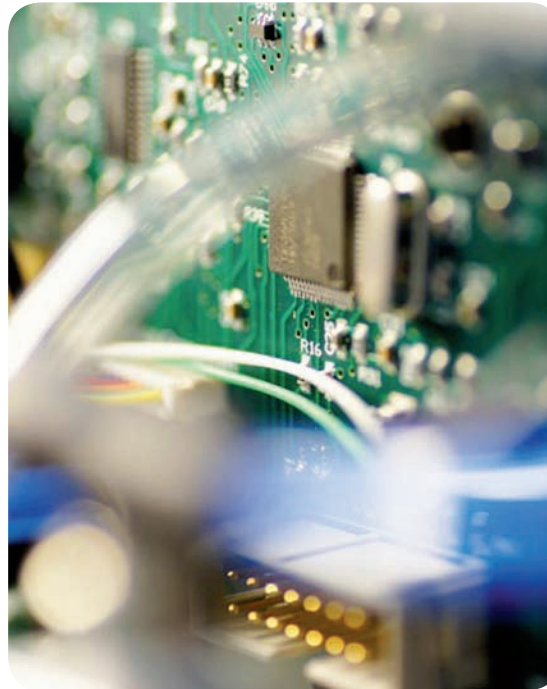
Keeler – Excellence in manufacturing experience and quality

For over 90 years Keeler has continued to innovate, design and manufacture world class ophthalmic instruments in our Windsor factory.

In 1986 the Pulsair Tonometer revolutionised non contact tonometry with its unique hand held and portable system bringing a new dimension to patient care and the management of space and time.

Pulsair and tonometry are synonymous – the 5th generation IntelliPuff hand held model combines contemporary style together with new technologies and the new Pulsair Desktop brings the Pulsair name to those requiring a chinrest desktop device.

Applanation Tonometry is a widely practiced and respected technique; the Keeler Applanation Tonometer (KAT) will match that level of respect with our exceptional build quality and manufacturing consistency.



Pulsair Tonometers - stylish and practical

Both Pulsair Desktop and Pulsair intelliPuff have exceptional patient visualisation; the slim profiles of the Pulsair optical mainframe allow the clinician to maintain visual contact with the patient at all times during the measurement process.

The Pulsair Desktop has a small and space saving footprint that combined with the elegant, slim optical mainframe allows it to blend seamlessly into the clinical environment. The openness of the design increases the confidence of both patient and clinician.

Pulsair intelliPuff brings versatility to tonometry; wall mounted or desk mounted the lightweight hand held optical mainframe allows the clinician to measure all patients with equal comfort and respect. The flexibility of use and space saving makes this instrument virtually unbeatable for performance and value.



Pulsair desktop



Pulsair intelliPuff



Comfort and speed

Less is more. Pulsair Desktop is uncomplicated and therefore quick to use for the novice and professional alike. Taking control of tonometry has never been easier or faster. Clear user controls and a colour video alignment screen combine to set a new standard in usability.



Hand held and wall mounted



Space saving flexibility - intelliPuff can be wall or desk mounted

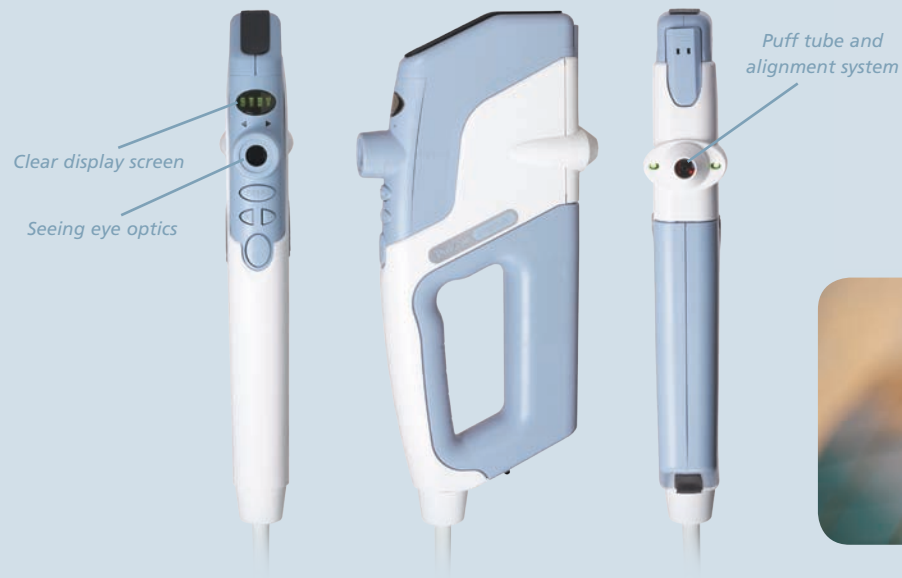
Being hand held, Pulsair intelliPuff avoids the need to position the patient in a chinrest removing an entire process from the patient journey – fast and easy to use while the patient is already seated in an examination chair, space and time under control.



Sophisticated technology

Keeler Pulsair tonometers use advanced optical and sensor technology for positional detection and puff control.

Pulsair Desktop and Pulsair intelliPuff have software controls to manage the measurement data; if two consecutive readings are within ± 1 mmHg of each other the Pulsair will inform the user that sufficient readings may have been taken for that eye, saving precious time and increasing patient comfort.



Engineering and design excellence

Pump, solenoid control valves, plenum chamber and optical mainframe are all designed to function optimally leading to efficient and fast measurement.

LED illumination provides a constant and reliable light source for the alignment camera and the positional detection systems.

Quietly cost effective, the Pulsair tonometers require no sterile consumables, printing is under your control so ongoing costs are managed.



Pulsair Specifications

Pulsair Desktop

Calibrated range	5mmHg to 50mmHg
Displayed accuracy	Display accuracy to 1 decimal place e.g. 12.3
Displayed scale	Single line 16 character alphanumeric display
Illumination system	LED infra red
Working distance	20mm
Dimensions	475 x 410 x 245mm (H x D x W)
Weight	16kg
Complies with	Electrical Safety (Medical) BS EN 60601-1:2006. Electromagnetic compatibility EN 60601-1-2:2007. Ophthalmic instruments - fundamental requirements and test methods ISO 15004-1:2006. Optical radiation hazard ISO 15004-2:2007
Power Supply Unit	Switch mode, (110 – 240V)+/- 10% multi plug type compliant to EN 60601-1 EN 61000-6-2, EN 61000-6-3
Power supply output	30 VA (12V DC 2.5A)
Frequency	50/60 Hz
Printer	Thermal line printer

Part Numbers:	2417-P-2000 Pulsair Desktop Tonometer
	3104-L-8201 Chinrest Papers
	2208-L-7008 Printer Paper

Pulsair intelliPuff

Calibration range	5mmHg to 50mmHg
Measurement scale	mmHg (millimetres of mercury)
Displayed accuracy	0.1mmHg
Display	4 character dot matrix scrolling
Firing system	Automatic and objective
Illumination system	LED infra red
Working distance	20mm
Mounting system	Table/desktop/wall
Base unit dimensions	260 x 215 x 220mm (H x D x W)
Base unit weight	2.465Kg
Handpiece dimensions	315 x 150 x 46mm (H x D x W)
Handpiece weight	0.890Kg
Umbilical cord length	2.0m
Printer	Thermal line printer

Part Numbers:	2414-P-2001 intelliPuff unit
	2414-L-7008 Printer paper roll

KAT - Keeler Applanation Tonometers

The Goldmann principle is considered to be the most prevalent method of tonometry as it is the most widely accepted method of determining the approximate intraocular pressure.

The Keeler manufactured applanation tonometers are designed and built to our exacting standards to give you the accuracy and quality you expect from a Keeler device.

The T type and R type KATs will be supplied with a reusable doubling prism, the calibration check bar and either the R type post or the T type aluminium guide plate for Slit Lamp use.

KATs - the gold standard of tonometry



T type guide plate



R type mounting post



KAT T type (Take-Away)



KAT R type (Fixed)



KAT T type on Slit Lamp



KAT R type on Slit Lamp

Robust and reliable

Our all metal parts, manufactured to a high precision engineering design will withstand the test of time and deliver reliable and repeatable results year after year.

To protect your investment when travelling or for when the instrument is not in use, purchase our high quality aluminium carrying case to ensure your tonometer will always be stored and protected.



KAT Specifications

KAT - Keeler Applanation Tonometer

Measurement force	By leverage weight
Installation: Keeler T type: for tower illumination Slit Lamps	Fitted to the guide plate on the optical axis for the microscope and illumination unit arm
Keeler R type: for tower illumination Slit Lamps	Mountable on a post fitted to the microscope optical body
Measurement range	0 - 80 mmHg (0 – 10.64 kPa)
Approximation of the impact force on the measurement head for a 0 to 58,84 mN measurement range	Standard divergence: $0.49 \text{ mN} \leq 3s \leq 1.5 \%$ of nominal value
Operating temperature range	from 10°C to 35°C
Measurement accuracy	$\leq 0.49 \text{ mN}$
Net weights: Keeler T type	0.41 kg (without accessories)
Keeler R type	0.69 kg (without accessories)

Part Numbers	2414-P-2030	KAT – Keeler Applanation Tonometer T type
	2414-P-2040	KAT – Keeler Applanation Tonometer R type
Accessories	3414-P-7000	KAT Aluminium carrying and storage case
	2414-P-5001	KAT doubling prism
	2414-P-5032	KAT T type guide plate
	2414-P-5042	KAT R type mounting post
	2414-P-5005	Calibration arm assembly





Complies with: Safety (Medical) EN 60601-1:1990 plus amendments A1:1993, A11:1993, A12:1993, A2:1995 and A13:1996. EN ISO 15004:1998, Clause 6.3 optical radiation hazard, Clause 7.3 environmental conditions. EN60601-1-2 for EMC.

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