Product Datasheet

QUART didoNEO R

X-ray Multi-Meter for Service and QA in R&F and Dental

The QUART didoNEO line of meters introduce a new approach to the market of diagnostic x-ray measurement:

- **The system features the lightest multi-functional base unit ever designed for for x-ray measurement.**
- **The didoNEO sports the smallest and thinnest multi-parameter detector available.**
- **Users can access a waveform preview on the unit's display in the field – without the need to access a PC or laptop.**
- **Up to 10.000 exposures are stored in the memory for future reference or reporting.**

Base Unit

The didoNEO's base unit and detector are both optimised in size and weight. They represent the most compact x-ray meter sensor and base unit in the industry.

The unit screen enables an exposure wave form preview – simply tilt the device to show. Zoom-in and out for detailed visual analysis of the exposure graph.

Detector

The compact detector design enables measurements at locations with limited space, for instance behind scatter radiation grids to determine the equipment attenuation factor. The small size also has a very low influence on fluoroscopy AEC.

The detector can be easily and efficiently positioned at dental panoramic x-ray equipment.

Parameters

- Dose.
- Dose-Width Product*
- Dose Rate Real-time / Maximum / Average / Half Exposure
- kV max. / kV eff. (PPV).
- Pulse / Pulse Rate.
- Exposure Time / Radiation Time.
- Direct-HVL.
- Total Filtration.

QUART NEOtec Software	
Compatibility	Windows 10 and above
Data Viewing Mode (2)	Waveform deep-analysis Parameter data overview
Software Modalities	Database, adaptable reporting

General Specifications	
Base Size	12 x 7 x 2 cm (L x W x H)
Base Weight	60 g incl. battery
Display Size	5.7 x 4.3 cm (H x W)
Display Resolution	320 x 240 pixel
Display Modes	Backlit/No light
Detector Size	6 x 1.8 x 0.7 cm (L x W x H)
Detector Weight	Negligible
Detector Cable Length	1.8 m
Memory	Last 10 exposures accessible on device
Power Supply	Rechargeable battery; 3 - 4 hours until fully recharged
Battery Time	Approx. 10 continuous operating hours
Auto-Off	After 10 min. of inactivity
Display Off	Back-Light Off after 2 min. of inactivity

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Specifications

Measurement	
Exposure Method	Single Exposure
Measurement Start	Auto
Measurement Stop	Auto; plus acoustic signal
Immediate Reset	Auto
Parameter Display	Less than 1 sec after last radiation detected plus up to 5 sec reaction-standby
Set-Up Requirements	None; Auto-Setting before / after filtration Auto-Setting for varying radiation qualities

Data Communication	
Data Storage Capacity	2GB (up to 20.000 exposures including waveforms, depending on exposure length)
Data Read-Out	Available as transfer feature to NEOtec software
Data Interface	Micro-USB2.0 (Micro B – USB A cable)
Data Format	Generic didoNEO format
Data Transfer	Export to Microsoft Excel for parameters and waveform

Dose	
Measurement Mode (2)	Auto-Setting for measurement before and after filtration Auto-Measurement of DWP** for fan-beams (Beam width <10 mm)
Dynamic Range	0 - 150 kV
Measurement Range	1 µGy - 1 Gy
Resolution	0.1 µGy
Uncertainty	± 5%

Dose Rate	
Dose Rate Modes (4)	Real-time after 1st second (refresh each 1/4 s) At half exposure time Average dose rate Maximum dose rate
Measurement Range	0.5 µGy/s - 1 Gy/s
Resolution	0.1 µGy/s
Uncertainty	± 5%

kV	
kV Modes (2)	Maximum kV (kVp) Effective kV (PPV)
Measurement Range	40 - 125 kV
Exposure Conditions	1.00 - 8.5 mm Al total filtration
Resolution	0.1 kV
Uncertainty	±6 % or considerably better at known medical radiation qualities

Time	
Time Modes (2)	Exposure Time (or Loading time, IEC 60601-2-54) Radiation Time
Measurement Range	0.2 ms - 296 s
Resolution	0.1 ms
Uncertainty	±0.7 ms

Pulses	
Pulse Modes (2)	Pulses Pulses per second
Measurement Range	1 - 65.000 0.1 - 250 Pulses/s
Resolution	1 Pulse
Uncertainty	1 Pulse

HVL	
Measurement Range	0.8 - 13.3 mm Al
Exposure Conditions	1 - 50 mm total filtration 40 - 150 kV
Resolution	0.1 mm Al
Uncertainty	±6 %

Total Filtration	
Measurement Range	1.0 - 8.5mm Al
Exposure Conditions	60 - 90kV
Resolution	0.1 mm Al
Uncertainty	±0.7 ms

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