

Model Cobia Flex Flexible X-ray QC

Part Number: 99-9905

Features

- Quickly Ascertain X-Ray Output Accuracy
- Large 320 x 240 Pixel Color Display
- Built-In mAs for Versatility
- Display Rotates for Ease of Positioning

Introduction

The Model Cobia Flex is a straightforward and simple-to-use instrument for checking that the output from an X-ray tube is correct. The measured values can be read directly from the large, easy-to-read display and can also be stored in the device to be read later.

The internal detector can measure dose, dose rate, kV, HVL, TF, and time. External probes can also be connected to make the Cobia Flex suit your specific needs. A built-in mAs is included, but can be deselected if not required.

The Cobia Flex has no position dependence, just place it under the beam and make sure the detector area is irradiated. There is no need to reset the device between your measurements, so you can stay in the control room until all your measurements are made. The practical log function makes it possible for you to read your measurements when you have the time.



Specifications

DISPLAY: Color, 320 x 240 pixel

MINIMUM EXPOSURE TIME: 0.1 ms

SENSITIVITY: 0.2 mA @ 50 kV, 50cm (3 mm Al)

POWER: external power supply / internal battery
(battery life 10 - 20 hours)

SIZE (L x W x H): 13.8 x 7.6 x 2.7 cm (5.4 x 3 x 1 in.)

WEIGHT: approximately 290 g (10.2 oz.)

PARAMETER	RANGE	ACCURACY
Tube Voltage	38 – 155 kVp	± 2%
Time	0 ms – 2000 sec 3 – 9999 pulses	± 1% or ± 0.33 ms -----
Dose	60 nGy–1700 Gy 7 µR/s – 200 kR	± 5% ± 5%
Dose Rate	2.5 µGy/s –175 mGy/s 0.3 mR/s – 20 R/s 17 mR/min – 1200 R/min 1 R/h – 70 kR/h	± 5% or ± 200 nGy/s ± 5% or ± 20 µR/s ± 5% or ± 1 mR/min ± 5% or ± 70 mR/h
HVL	1 .2 – 14 mm Al	± 10% or +/- 0.2 mm
Auto-Compensation	1.5 mm Al – 1.4 mm Cu	NA
Total Filtration	1.0 – 55 mm Al	±10 % or ±0.3 mm Al
Pulse frequency	1/6 – 260 Hz	±5 % or ±0.2 Hz
Dose/pulse	10 nGy/p – 1 Gy/p 1.1 µR/p – 120 R/p	±5 % ±5 %
Effective time	0 ms – 1999 s	±1 % or ±0.33 ms

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Note: specifications subject to change without notification. We are not responsible for errors or omissions.

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Accessories



Light Probe (PN: 99-9915)

The light probe is designed with the same spectral response as the human eye. It measures the brightness on monitors and film viewing boxes, along with the ambient light of the area for QA requirements of modern X-ray departments. The spectral response complies with the CIE curve $V(\lambda)$.



Dose Probe (PN: 99-9916)

Designed to perform very low dose rate measurements, this solid-state detector's minimalist cross-section minimizes interference with AEC (Automatic Exposure Control) on X-ray equipment. The compact size also enables it to fit into the table bucky. The fast response time makes it ideal for both pulsed and continuous fluoroscopy. The probe automatically identifies the connected Cobia instrument and automatically adjusts, requiring no input from the user.



Chamber Adapter (PN: 99-9925)

Provides users with the option to use up to five different tri-axial cable equipped ion chambers with their Cobia Flex instruments. Adapter cable required if ion chamber does not have LEMO type O connector. The device is optimized for use with CT and Mammography applications but may be used in other procedures.



CT Ion Chamber - 10 cm (PN: 99-9926)

A pencil-shaped air ionization chamber that measures and monitors the exposure output level of CT scanners in air or in a phantom. It measures the CT Dose Index, or CTDI, in accordance with IEC 61223-2-6. This device must be used with the chamber adapter (left).

Specifications

Ranges with Model Cobia Flex

DOSE LENGTH RATE: 0.8 mGycm/s to 8 Gycm/s

INACCURACY: $\pm 6\%$ or ± 0.08 mGycm/s

CONNECTOR TYPE: LEMO triaxial

CABLE: 2 m, low noise triaxial

ACTIVE VOLUME: 4.9 cm³

ACTIVE LENGTH: 100 mm

INNER DIAMETER: 8.0 mm

TYPICAL LEAKAGE: ± 4 fA

RADIATION QUALITY: 80 - 150 kV

SENSITIVITY: 400 nC/Gy or 3.5 nC/R