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ISO 9001

Model 90M9 mAs Sensor for the 9095/6 and 4085/6



DESCRIPTION:

The mAs sensor connects to the 4-pin DIN connector labeled **mAs Adapter** of the model 9095, 9096, 4085 or 4086. The interconnecting cable is a standard S-Video cable. The mAs sensor connects to the x-ray generator with safety-shrouded banana jacks. It is intended to be inserted in series with the x-ray generator return.

Spacing and isolation rated to withstand 1500 vac rms is provided between the generator and the 9095/6 or 4085/6. The sensor measures mA as the voltage across a 1 ohm resistor. These values are digitized with 20 bits of resolution (2A full-scale) and transferred to the 9095/6 or 4085/6 processor. The values are corrected for zero level, and then their absolute values recorded as a waveform with the same 76.8 μ s resolution as the kV waveform. The value of mAs is computed by summing mA values during the part of the kV waveform (requires kV sensor in beam) defined by the same thresholds that are applied to determine its width, generally 75% of kVp. Average mA is mAs divided by this width.

FEATURES:

- Automatic power control extends battery lifetime. Annual replacement is usually sufficient.
- Automatic zero.
- Measurement synchronized to kV waveform.
- .001 to 9999 mAs and 10 μ A to 2A dynamic range with no range switching.
- Measures absolute value (no rectifier drop and optimum noise rejection).
- mA-waveform available to an external PC using a spreadsheet.
- 2.33-kHz -3-dB bandwidth.

SPECIFICATIONS:

- Full-scale: 2000 mA or 9999 mAs
- mA accuracy: 0.2% of reading at dc plus resolution of +/-0.015 mA or 3-4 digits
- mAs accuracy (1-s pulse): 5 μ As or 0.2% of reading; resolution of 0.001 mAs.
- Input impedance: Fixed, resistive, 1.7 - 2.7 ohms. 1 ohm sense resistor plus fuse and wiring.
- Input protection: 2-A fuse. Over-voltage protection using 22-J varistor before the fuse and 17-V Zener diodes after the fuse.
- Absolute value of bi-polar 720 Hz waveform accurate to 2.5%.
- Bandwidth: 2.33 kHz, -3 dB.
- ON/OFF controlled from 9095/6 or 4085/6 control unit. (ON only when a kV function is active.)
- Power supplied by replaceable 9V battery