Product Documentation

Tentative

Tube N°

06-0172

X-Ray Tube

MTI-40-2-AG-500

P/N 915601.01

Documentation-No.:
DK-915601.01E

Original text: English

COMET

Revision record

Issue	*Date*	*Remarks*
0.1	09.11.05	Draft

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TABLE OF CONTENT

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1 Scope

This document is applicable to the following part:
X-ray Tube MTI-40-2-AG-500, Part number 915601.01

Definitions in this product documentation

A Note is a text that is only there for additional information.

A Caution is information indicating a danger that could damage or destroy equipment.

A Warning is information that indicates a danger that could potentially harm or kill persons.

2 Intended use / General Characteristics

The MTI is an industrial X-ray Tube in metal ceramic technology. Its intended use is in industrial applications for non destructive testing purposes. It is not to be used for medical applications.

3 Warnings

Introduction

Proper use and safe operation of X-ray tubes are the responsibility of the equipment manufacturer and user of such tubes. The manufacturer provides information on its products and associated hazards, but it assumes no responsibility for after-sale operating and safety practices. Limited life is an inherent characteristic of x-ray tubes. Take appropriate action through redundancy or other safeguards to protect personnel and property from tube failure.

The X-ray Tube emits x-ray. Please observe the local and international regulations!

Do not operate this tube except in accordance with safety-information and additional instructions provided by the original equipment manufacturer.

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COMET supplies the tube without any radiation protection. Appropriate shielding must be provided by the original equipment manufacturer in accordance to local regulations.

X-ray Tubes are operated at voltages high enough to kill persons through electrical shock. Appropriate isolation must be provided by the original equipment manufacturer.

The X-ray Tube contains Beryllium (tube window). At the end of useful life of the tube the Be-window must be disposed in accordance with your local regulations.

Fumes of Beryllium metal (or its compounds) as well as dust can be hazardous if inhaled.

During use, corrosion products may occur on the Be-window, but these should not be scraped off, machined or otherwise removed.

The X-ray Tube is not to be operated in air. Appropriate isolation must be provided by the original equipment manufacturer.

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4 Technical specifications

Tube Voltage	10 ... 40 kV
Tube Current	0 ... 50 µA
Continuous Tube Power	max. 2 W
X-ray window	Be
X-ray window thickness	0.5 mm
Target Material	Ag
Radiation angle	> 100°
Filament voltage	max. 1.3 V
Filament current	max. 1.0 A
Anode temperature	max. 100°C
Mounting orientation	any

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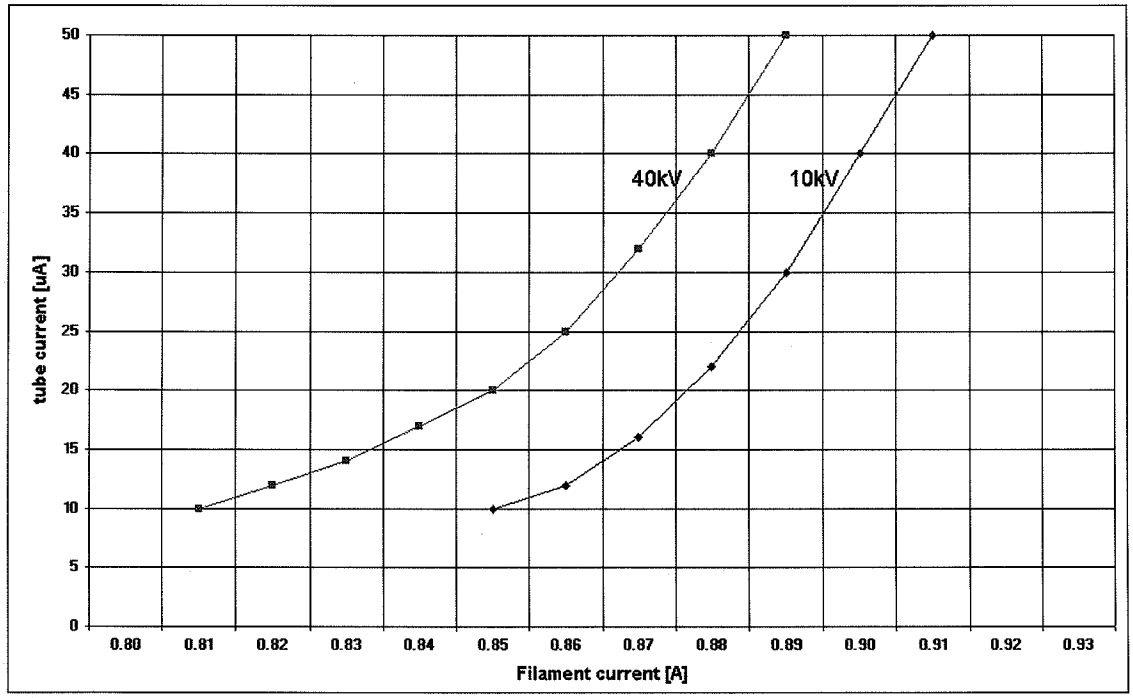
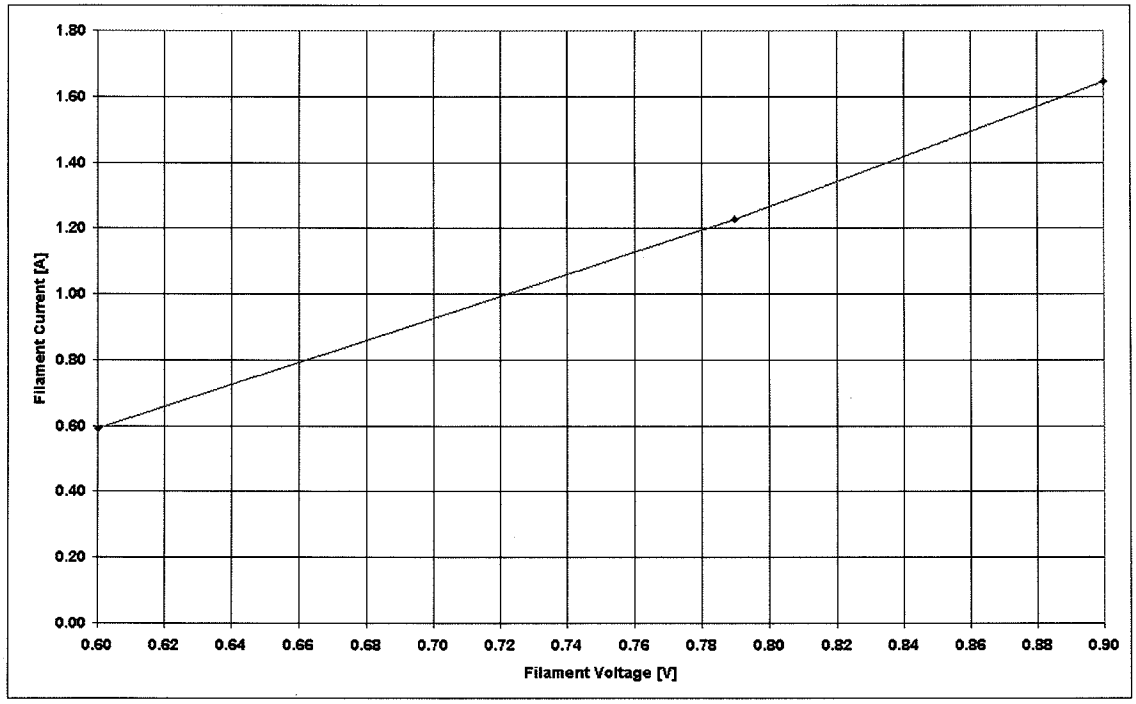
Tube emission characteristics (typical)



Filament characteristics (typical)



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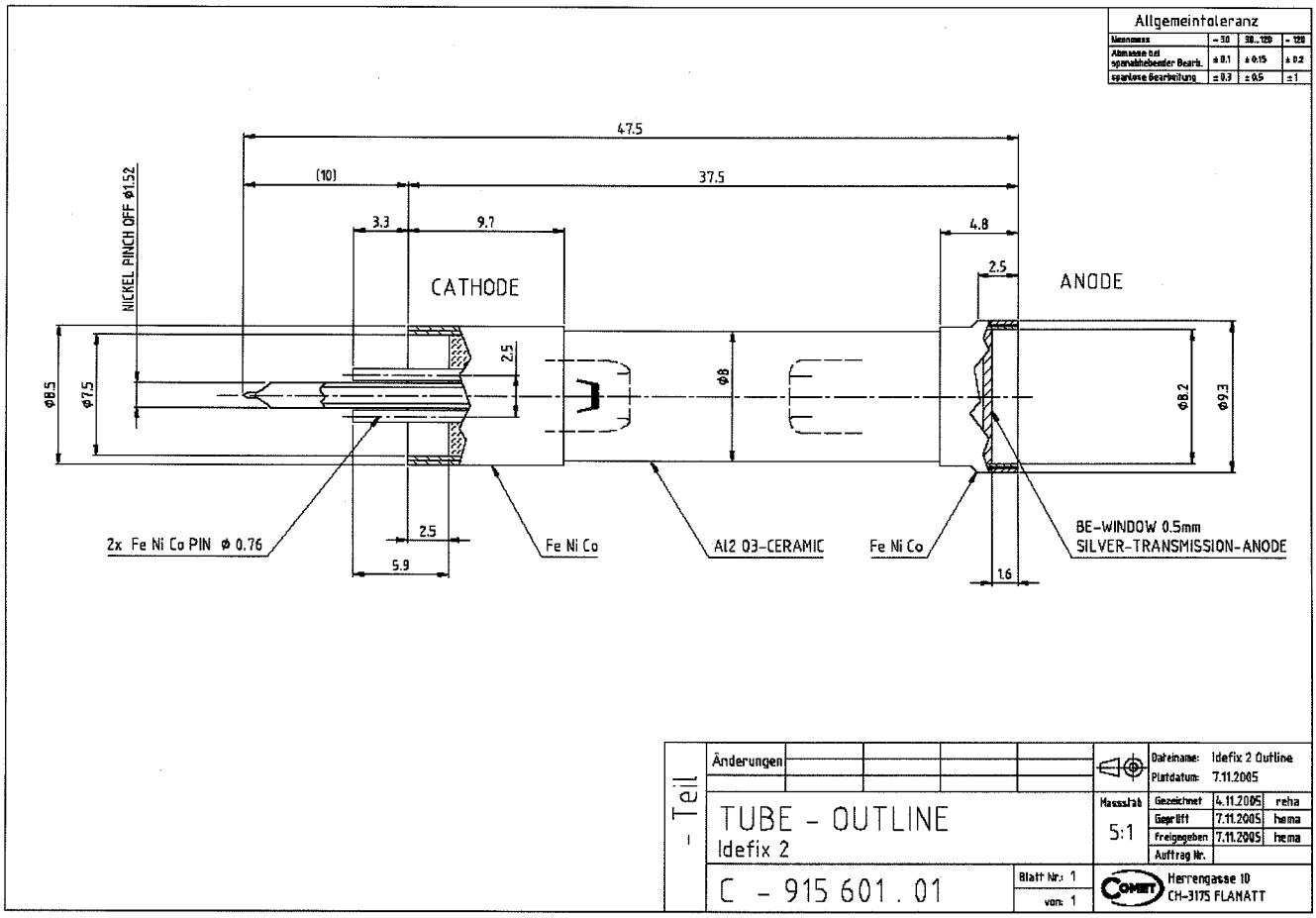
Mechanical Dimensions:



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5 Installation

The tube is shipped to the customer in a single package ready for assembly.

Warning

Before starting the assembly, take into account the following precautions to avoid personal injuries:

- **Read the operation manual**

Caution

The X-ray tube may only be installed by trained personnel.

6 Periodic maintenance

No periodic maintenance is required.

7 Disposal

Warning

The X-ray tube contains Beryllium (tube window). At the end of useful life of the tube the Be-window must be disposed in accordance with your local regulations.

Fumes of Beryllium metal (or its compounds) as well as dust can be hazardous if inhaled.

During use, corrosion products may occur on the Be-window, but these should not be scraped off, machined or otherwise removed.

Apart from that, this product contains no dangerous parts and can be disposed of as standard electrical waste; the metal parts can be treated as standard metal waste.

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