iXRS-MF

MesoFocus Series

Revolutionizing Non-Destructive Testing

The MesoFocus Series is ideal for inspecting parts with large differences in material strength or characteristics in a single component, in particular, additive manufactured parts, carbon fiber materials, and casting. It bridges the gap between open microfocus and minifocus X-ray technologies without compromising performance.

The MesoFocus technology allows users to detect features and conduct dimensional analysis down to 25 µm with a sealed X-ray tube. With its field of view, the MesoFocus X-ray tube reduces the number of images required to inspect a part resulting in a faster inspection process.

Unlike conventional microfocus tubes, the MesoFocus technology offers high stability due to minimal defocusing of the focal spot from thermal changes. This, and the absence of greasing O-rings and exchanging of filaments or targets result in fewer service interventions and an inherently higher uptime in your application.

The iXRS-MF modules provide cost-saving opportunities as they can eliminate the need for dual tube systems or two distinct cabinets with different X-ray tube technologies.

It All Comes Together

As the only manufacturer of both X-ray tubes and generators, Comet X-Ray simplifies your supply chain as your single point of contact.

We understand how vital it is that all the elements in an X-ray module work seamlessly together. All iXRS are functionally tested as a module before delivery to reduce integration and testing times. The test report guarantees your peace of mind.

A user-friendly interface gives you easy access to protocols to provide smoother workflows from installation to operation. When combined with easy access and control of key generator parameters it makes your processes swifter and more cost-efficient.

By connecting experience, technology, and the real-life challenges of the user's applications we are able to offer you a system that's built with your success in mind.

c•met
x-ray

Product Specifications

iVario MF	225/0.5
Voltage Range	10 - 225 kV
Adjustment Increments (minimum step)	≤ 0.1 V
Accuracy	± 1 % of max kV
Reproducibility (at constant temperature)	± 0.01 % of max kV
Long-Term Voltage Stability[1]	± 0.1 % of max kV
Temperature-Induced Drift	± 40 ppm/°C
Emission Current Range	5 mA
Adjustment Increments	≤ 0.01 mA
Absolute Accuracy	± 0.2 % of max mA
Reproducibility (at constant temperature)	± 0.02 mA
Long-Term Current Stability[1]	± 0.1 % of set mA
Temperature-Induced Drift	± 50 ppm/°C
Maximum Power	500 W
KV-Ramp-up and Ramp-down Time between two Working Points	< 300 ms
Interfaces	
High-Voltage Connector Type	R28
Data / Control	Ethernet / RS-232
Dimensions	
Dimensions (HxWxL)	578x579x709 mm
Weight	172 kg
Approvals	CE, MET-NRTL, NFC 74100

1 over 8h max. kV/power after 1h warm-up

General Information

For more information and instructions regarding operation and installation of iXRS X-ray modules, cooling, connection of the X-ray tube and radiation protection, please consult the iXRS operator manual.

iXRS Configuration

For your individual iXRS configuration, please consult:
xray.comet.tech/ixrs-configurator

Comet AG
3175 Flamatt
Switzerland
xray.comet.tech

Product Specifications

Nominal tube voltage MXR-225MF	225 kV
Continuous rating	50 W, 130 W, 200 W
Focal spot acc. ASTM E1165-12	FS 19, FS 15, FS 13
Filament current, max.	2.1 A
Filament voltage, typical	3 V
Inherent filtration	0.8 ± 0.1 mm Be
Target material	W
Target angle	20°
Radiation coverage	40° x 40°
Leakage radiation, max. at loading factors in 1 m distance	5 mSv/h (225kV; 0.89 mA)
Weight	9.6 kg
Terminal type	R24
Gapping spring-loaded HV-cable	2 rings visible (~7 mm)
Gapping non-spring-loaded HV-cable	5.5 - 6 mm
Grease quantity for HV-cable terminal	1.2 ml

Power Rating Diagrams

Power rating at max. filament current