



Installation Requirements
ZEISS Axio Observer 3/5/7,
Axio Observer 3/5/7 materials
Inverted Microscope



ZEISS Axio Observer 3/5/7, Axio Observer 3/5/7 materials

Original Manual

Carl Zeiss Microscopy GmbH
Carl-Zeiss-Promenade 10
07745 Jena
Germany
info.microscopy.de@zeiss.com
www.zeiss.com/microscopy



Carl Zeiss Microscopy GmbH
Carl-Zeiss-Promenade 10
07745 Jena
Germany

Document Name: Installation Requirements ZEISS Axio Observer 3/5/7, Axio Observer 3/5/7 materials

Order Number: 349500-8199-000

Revision: 1

Language: en-US

Effective from: 09/2024

© 2024 Without the prior written consent of ZEISS, this document or any part of it must neither be translated nor reproduced or transmitted in any form or by any means - including electronic or mechanic methods, by photocopying, recording or by any information or filing system. The right to make backup-copies for archiving purposes shall remain unaffected thereby. Any violations may be prosecuted as copyright infringements.

The use of general descriptive names, registered names, trademarks, etc. in this document does not imply that such names are exempt from the relevant intellectual property laws and regulations and therefore free for general use. This shall also apply if this is not specifically referred to. Software programs shall entirely remain the property of ZEISS. No program or subsequent upgrade thereof may be disclosed to any third party, copied or reproduced in any other form without the prior written consent of ZEISS, even if these copies or reproductions are destined for internal use at the customer's only, the only exception being one single back-up copy for archiving purposes.

Table of contents

1	About these Installation Requirements.....	4
1.1	Further Applicable Documents.....	4
2	Requirements	5
2.1	Environmental Requirements	5
2.1.1	Acoustic Noise	5
2.1.2	Air Conditioning and Quality	5
2.1.3	EMC Information.....	8
2.1.4	Vibration	8
2.2	Location Requirements.....	9
2.2.1	Space Requirements.....	9
2.3	Electrical Supplies	11
2.3.1	Overvoltage Category.....	11
2.3.2	UPS Requirements.....	13
2.4	Network Connectivity.....	13
2.4.1	ZEISS Predictive Service	14
2.5	Safety and Radiation Information	14
2.5.1	Biosafety Level of the Laboratory.....	14
2.6	Transport and Storage.....	15
2.6.1	Weight and Sizes of the Transported Goods.....	16
2.6.2	Weight and Sizes.....	16
2.7	Disposal	17
2.7.1	Disposal of Packaging Material.....	17
3	Applicable Standards and Regulations	18
4	Responsibility Checklist	19

1 About these Installation Requirements

This Installation Requirements (further called "document") describes the location requirements for the installation of a Axio Observer 3/5/7 and Axio Observer 3/5/7 materials, hereinafter referred to as "microscope".

It helps to determine a suitable location within facilities and to prepare the location before delivery of the microscope. The suitability of a location depends on various factors such as:

- Room size
- Floor stability
- Environmental conditions
- Availability of supplies

The room size should be able to accommodate the microscope as well as potential accessories and 3rd party systems that may be attached to the microscope. For servicing the equipment, adequate access space is also required. The selected location should conform with the correct environmental conditions to ensure the safe and ideal operation of the microscope and its application whilst still ensuring the safety and comfort of the operators. Environmental conditions are often influenced by surrounding installed systems or activities.

We can distinguish between:

- Vibrations
- Acoustic noise
- Room temperature
- Air quality

The customer is responsible for ensuring that the conditions specified in this document are fulfilled and that the required equipment is available before delivery and installation. A ZEISS service representative will gladly assist in examining the installation conditions and suitable measures.

1.1 Further Applicable Documents

Brochures and Certificates	For brochures, certificates (e.g. ISO, CSA, SEMI), and declarations of conformity (e.g. EU, UK) ask your ZEISS Sales & Service Partner.
Local and National Health and Safety Regulations	Observe local and national health and safety regulations for the location of installation and during the use of the microscope. Consult with your ZEISS Sales & Service Partner if these regulations are in conflict with the installation requirements of the microscope.
System and Third-Party Components, Accessories	Information about the individual components, enhancements, and accessories can be obtained from your ZEISS Sales & Service Partner. Also refer to the documentation of third-party manufacturers.

2 Requirements

The following sections describe each requirement in detail.

2.1 Environmental Requirements

Environmental effects such as acoustic noise, floor vibration and room temperature have a significant impact on the performance of the microscope and the ability to achieve the specified performance with particular regard to long term and sensitive workflows as well as equipment safety.

A site survey can be requested from your local ZEISS service representative prior to the installation.

2.1.1 Acoustic Noise

It is recommended that the microscope is installed and operated in a quiet room. Sound waves, e.g. vibration of the air caused by air-conditioning and other systems producing acoustic noise, will affect the microscope and may cause image distortion.

The following noise levels meet the specification of a quiet room and consider the potential resonance frequencies of damping tables.

Allowable noise level	
50 to 120 Hz	less than 55 dB (Z class)
120 to 200 Hz	less than 50 dB (Z class)
200 to 500 Hz	less than 55 dB (Z class)

2.1.2 Air Conditioning and Quality

The correct air conditioning of the proposed site for the microscope is critical for achieving high quality, stable and repeatable results as well as ensuring a suitable working environment for the users.

Many components of a microscope require stable ambient conditions to ensure that the optimal resolution of the system is achieved as well as stable results. The most common impact of instability is a focus drift of the image (e.g. during a time series).

For best operating conditions for the microscope:

- The conditions around the microscope (ambient) should remain at the recommended chosen ambient temperature and humidity 24 h per day and 7 days a week.
- Take note that many energy saving initiatives typically include reducing the air conditioning efficiency of buildings over night and over weekends which may affect your laboratory too.
- The actual ambient temperature should remain in the recommended range for best optical performance to ensure the optics of the microscope will achieve the specified resolution.
- To ensure stability of the results and reduce drift issues, the optimal temperature change gradients are indicated. The temperature stability requirements are far more stringent than the absolute ambient temperature and may require special attention if a high degree of focus stability is required.
- The air conditioning system must be of the correct size for the room dimensions, heat dissipated from the systems and number of people in the room. The air outlets and intakes must not be directed towards the microscope.
- For applications requiring a high degree of stability, we recommend the use of temperature and humidity monitoring devices as a reference to monitor the stability of the ambient temperature.

Where a site may not meet the required stable specifications, we recommend discussing with your ZEISS service representative on possible microscope related drift compensation software or hardware solutions that may help to reduce the effects of any temperature instability on the imaging results.

In the event of the room temperature changing from a given, stable value, it may take up to 3 hours for the microscope to stabilize again.

Optical Resolution Performance

Ambient temperature	22 °C
Range for best optical performance	± 3 °C
Reduced optical performance operation (out of range for best optical performance)	10 to 19 °C and 25 to 35 °C

Image and Data Stability

Recommended best temperature stability	± 1.0 °C
--	----------

General

Relative humidity	< 65 %
Microscope max. Heat Dissipation*	Min 150 W Max 1150 W Average ~500 W
Warm-up time	For long term experiments the usage of Definite Focus 3 is recommended. Without Definite Focus 3 it is suggested to warm up the microscope for ~2h.
Pollution degree [▶ 7]	2

*depends significantly on the configuration and settings of the microscope.

To ensure sufficient clean air circulation through the cooling systems, do not operate the microscope above the allowed altitude and below the allowed atmospheric pressure listed under Location Requirements.

Dust can cause erratic errors or possibly irreversible damage to electronic devices. Care should be taken that the site is as dust free as possible.

2.1.2.1 Pollution Degrees

Defines the design consideration of electronic components for the occurrence of conductive and non-conductive air borne particles that could damage high voltage electrical components. According to EN 61010-1: Safety requirements for electrical equipment for measurement, control, and laboratory use. Part 1: General requirements

Dust can cause erratic errors or possibly irreversibly damage to electronic devices. Care should be taken that the site is as dust free as possible. The pollution degree does not specify the number and size of airborne particles that should be measured but rather the location of where the product should be safely used. Air pollutants and air borne particulate matter limits are country and time of year specific to encompass acceptable industrial and possible pollen particulates.

Pollution Degree	Description
1	No pollution or only dry, nonconductive pollution occurs. The pollution has no influence. Typical for equipment used in clean rooms and sealed environments.
2	Only nonconductive pollution occurs. Occasionally, temporary conductivity caused by condensation is to be expected. Typical for equipment used in a standard office environment, laboratory environment, homes and test laboratories where air-conditioning ensures a minimal dust level.
3	Conductive pollution occurs, or dry nonconductive pollution occurs that becomes conductive due to condensation that is to be expected. Typical for equipment used in industrial non air-conditioned areas exposed to the outside environment on a regular basis.
4	The pollution generates persistent conductivity caused by conductive dust or by rain or snow. Typical for equipment used in the outside environment not sheltered from the weather at all.

2.1.3 EMC Information

The microscope is intended to be used in an industrial electromagnetic environment.

The microscope complies with the emission and immunity requirements as a CISPR 11 / EN 55011 / class B group 1 system according to IEC 61326-1. Emissions, which exceed the levels required by CISPR 11 / EN 55011, can occur when the microscope is connected to other devices.

External interferences such as electrostatic discharge can interrupt the function of the illumination units X-Cite XYLIS II and Viluma 9. This is not a defect. Correct function can be restored by restarting the illumination unit. There is no damage to the illumination unit. In this case it may help to remove the source of interference from the vicinity of the illumination unit.

External interferences such as conducted disturbances induced by RF fields, surges, or electrical fast transients (bursts) can interrupt the function of the X-Cite XYLIS II illumination unit. This is not a defect. Correct function can be restored by restarting the illumination unit. There is no damage to the illumination unit. In the case of conducted disturbances induced by RF fields, it may be helpful to remove the interference source from the immediate vicinity of the light source. In the case of conducted disturbances induced by surges or electrical fast transients (bursts), transient protection is a possible protective measure.

The following EMC user notice is for Korea only:

기종별	사용자안내문
B급기기 (가정용 방송통신기자재)	이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

2.1.4 Vibration

Vibrations can be caused e.g. by heavy-duty machinery installed on the same floor or even in the same building as well as transport facilities operated nearby. Depending on the floor stability and construction, even walking in the room or in the hallways may affect the image quality.

Allowable vibration values (under operating conditions on system table):

- **Less than Vibration Class VC-C, 12.5 μm/s (IEST RP 12 and ISO 10811)**

Reference for floor measurements:

- Please conform with the attenuation specifications of the proposed system table to ensure the VC-C specification is met on the table.
- For the NEWPORT Vision IsoStation series of damping tables recommended by ZEISS: Less than 63 μm/s for 0 to 4 Hz and less than 125 μm/s for 4 Hz to 1000 Hz
- These recommendations are based on an attenuation of -10 dB starting from 4 Hz and over -26 dB above 10 Hz. Low frequency vibrations (swaying) is recommended to be less than half of the 4 Hz limits.

Requirements for measuring vibrations:

- Three positions should be measured.
- The positions need to cover a triangle over the area where the microscope will be installed.
- At each position, measurements in X, Y and Z need to be taken.
- X is along the front of the microscope.

2.2 Location Requirements

The microscope must only be operated in closed rooms. It is recommended to install the microscope in a dimmed room where artificial illumination, sunlight or other light sources cannot interfere with image acquisition. The microscope should not be installed near radiators or windows with direct sunlight. The microscope must be placed securely on the table surface to prevent slipping and falling.

Compliance with the installation requirements of the microscope and the availability of the requested supplies is the responsibility of the customer and has to be readily available at the time of installation.

Installation site	Exclusively inside buildings
Altitude	Max. 2000 m above sea level
Atmospheric pressure	800 - 1060 hPa

- Do not place the microscope near windows with direct sunlight or radiator heating systems which could change the temperature of the microscope.
- Do not position power supplies or racks under the system table because the heat dissipated can cause instability of the microscope through the expansion of the steel table.
- Harmful gases and fumes that may be used on the microscope must be safely extracted from the microscope and site in accordance with local safety regulations.
- The microscope must not be set up in areas with potential danger by explosives.

2.2.1 Space Requirements

Recommended room size	Axio Observer 3: 1.0 m x 1.0 m x 1.0 m Axio Observer 5: 2.0 m x 2.0 m x 2.0 m Axio Observer 7: 2.0 m x 2.0 m x 2.0 m
Customer arranged computer workspace	Min. 0.8 m x 1.2 m x 0.76 m
Entrance	Min. 0.8 m wide
Hallways	Min. 1.2 m wide
Corners	Min. 1.2 m for boxes
Transport ways	Free of staircases
Power sockets	Should be no further than 1.5 m from the power supply entry socket of the microscope

- Allow for sufficient space depending on the size of the tables used on site.
- Electrical components must be at least 50 cm away from the wall and not near flammable objects.

The following layouts are recommended for optimal accessibility, airflow and stability, depending on the options purchased with the system. For possible changes in preferential layout, please discuss with your ZEISS Sales & Service Partner. The placing of the user table can vary depending on available space and cable lengths.

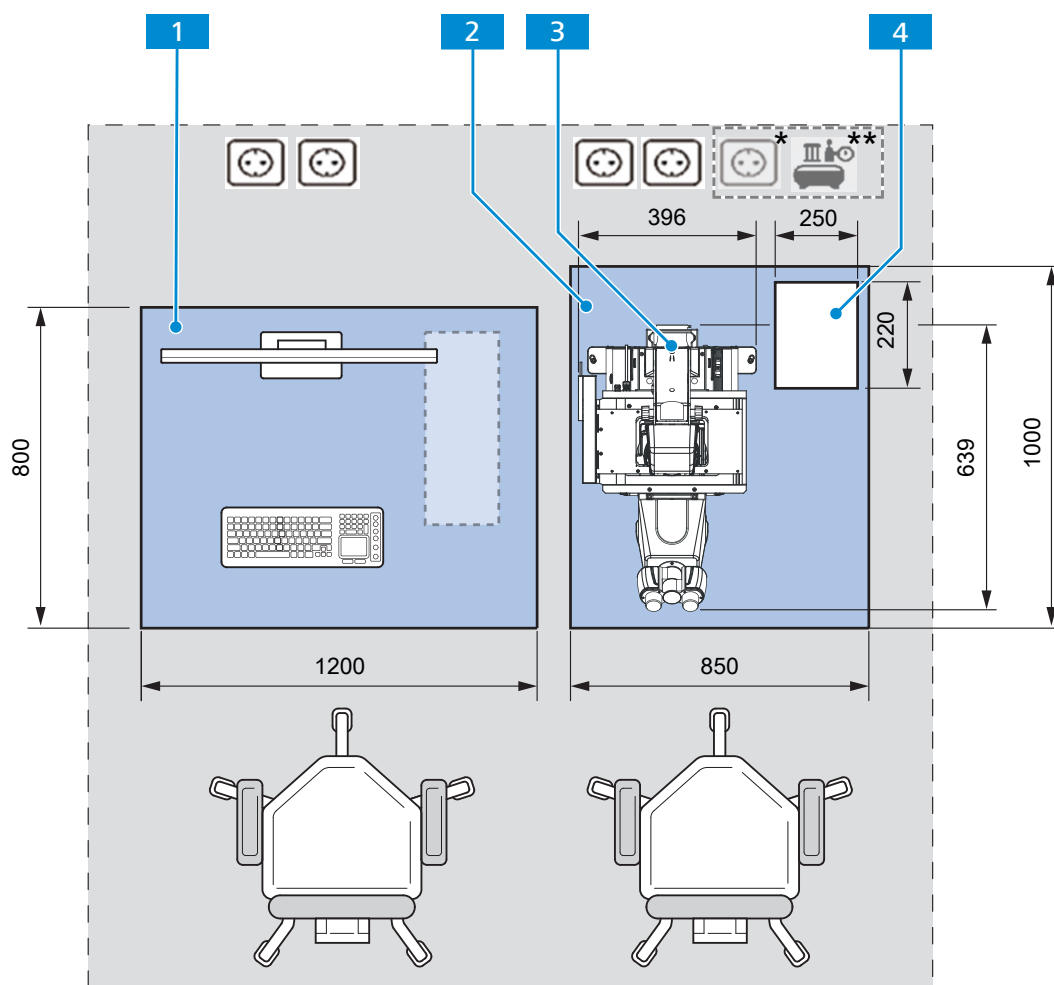


Fig. 1: Recommended arrangement (measurements in mm)

- | | | | |
|----------|----------------------------------|----------|-------------------------|
| 1 | Customer arranged computer table | 2 | Customer arranged table |
| 3 | Microscope stand | 4 | Controller |

* Every additional controller needed for optional components and configurations requires an additional power socket.

** Gas supplies may be required for optional components and configurations.

2.3 Electrical Supplies

The microscope must be properly installed with the power cords and supplied socket with protective ground contact securely connected.

The provided electrical connection must be in accordance with the applicable electrical codes for the country of installation. In order to avoid disturbance from other installed machines, you must use a separate power connection.

The Axio Observer 3, Axio Observer 3 materials, Axio Observer 5, Axio Observer 5 materials are connected to the mains supply with the provided mains cable.

The Axio Observer 7, Axio Observer 7 materials are delivered including an external power supply unit VP232-2, which is connected to the microscope. The VP-232-2 is connected to the power net with a mains cable.

- Do not extend or modify the supplied power cord.
- Do not connect electrical systems that are not authorized by ZEISS on the supplied power supply cord.

Nominal AC voltage	100 to 240 VAC \pm 10 % 200 - 1000 VA
Nominal frequency	50 - 60 Hz \pm 5 %
Main Power Plug	Local mains plug will be supplied.
Power consumption	max. 300 VA
Max. current	Axio Observer 3, Axio Observer 5: 100 – 127 VAC / 200 - 240 VAC / max. 300 VA; 3/1,5 A Axio Observer 7: 100 - 240 VAC; 2,3/1,0 A
Accessories mains power	Standard local 230 V or 120 V mains socket
Overvoltage Category [▶ 11]	II

2.3.1 Overvoltage Category

The IEC defined the term Overvoltage Category (sometimes referred to as Installation Category) to address transient voltages. Category IV devices can handle the largest transients relative to the normal working voltage. Category I devices can handle only small transients.

Voltage transients are defined as short duration surges of electrical energy. Repeatable transients are frequently caused by the operation of motors, generators, or the switching of reactive circuit components. Random transients, on the other hand, are often caused by lightning and electrostatic discharge. Ensure that the possibility of transient voltages on the mains line are minimal to prevent damage to the system.

Nominal Voltage (VAC)	Max. transient voltage in V		
	Category I	Category II	Category III
50	330	500	800
100	500	800	1500
150	800	1500	2500
300	1500	2500	4000
600	2500	4000	6000
1000	4000	6000	8000

Tab. 1: IEC Definitions of tolerated Transient Voltages for each Overvoltage Category

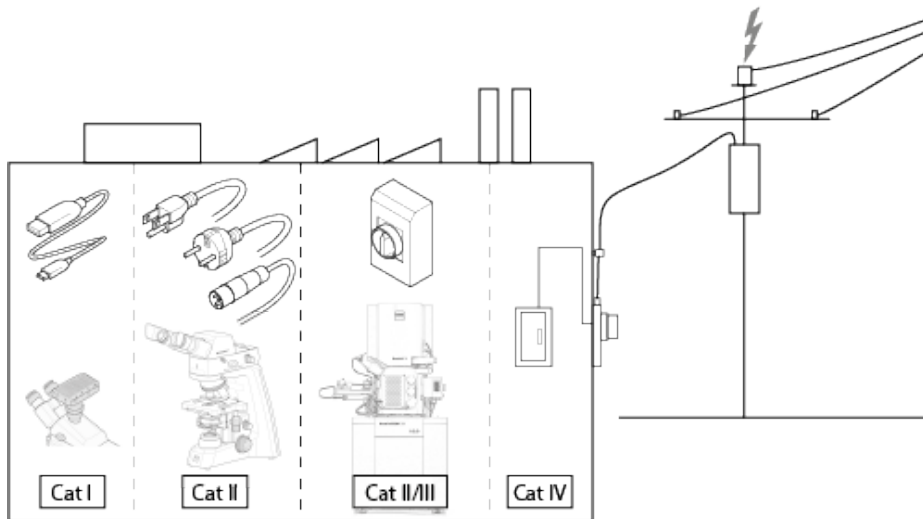


Fig. 2: Overvoltage Categories for plugs

Category	Description
I	For connection to circuits in which measures are taken to limit transient over-voltages to an appropriately low level. Examples: Protected electronic circuits.
II	Equipment intended to be supplied from the building wiring. Applies both to plug-connected equipment and to permanently connected equipment. Examples: Appliances, portable tools, and other household and similar loads. Measurement equipment intended to measure the voltage levels of these loads must be rated at this overvoltage category.
III	Equipment intended to form part of a building wiring installation and for cases where the reliability and the availability of the equipment is subject to special requirements. Examples: Switches in fixed installation and equipment for industrial use with permanent connection to the fixed installation; measurement equipment intended to measure the voltage levels of these fixed installations must be rated at this overvoltage category.
IV	Used at the origin of the installation. Examples: Electricity meters and primary overcurrent protection equipment.

Info

For further information on Overvoltage Categories refer to EN 60664-1.

2.3.2 UPS Requirements

If the site requires a UPS (Uninterruptible Power Supply), please ensure the KVA rating of the UPS meets the ratings of the microscope and all third-party items that may also be connected, e.g. water chiller, air compressor, sample prep equipment, EDS or WDS, etc.

This will ensure that the complete system will continue to function during a blackout or brownout long enough to allow the user to save any experiments and data and to shut off the system properly.

As battery performance deteriorates over time, always overestimate the time (typically 2x) you require for the UPS to maintain power in a blackout (long mains interruption) or brownout (short fluctuation of the mains supply) situation. The UPS only serves to bridge the time of a blackout or brownout until normal mains is restored. Please ensure to switch off the microscope before the batteries run low in a blackout.

UPS Batteries are a consumable item and will need to be replaced over time depending on charge cycles and usage. They are typically not covered under a ZEISS support contract, unless specified.

In areas where the mains supply is very unstable or not very clean, the most stable mode of UPS is the online mode, where the UPS constantly generates the output mains supply.

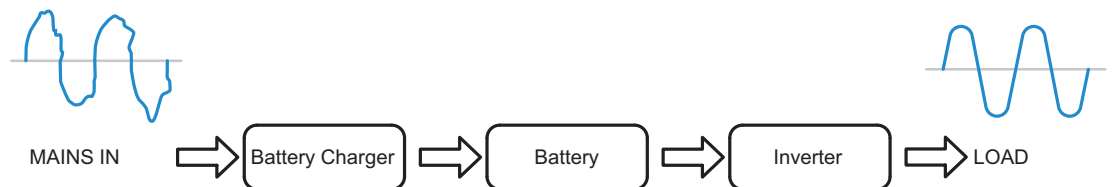


Fig. 3: Block diagram of online UPS

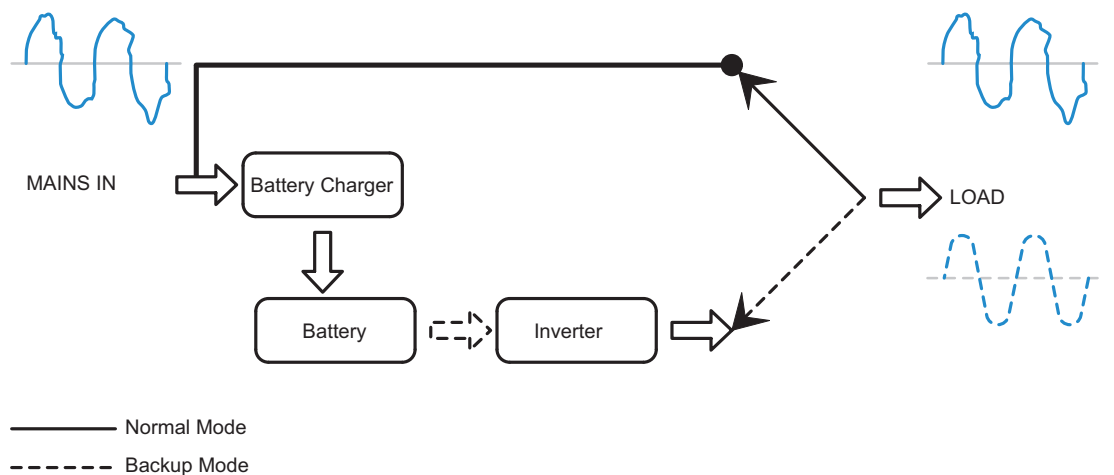


Fig. 4: Block diagram of offline UPS

2.4 Network Connectivity

In order to provide remote diagnostics, ZEISS recommends connecting the computer to the internet in a safe and secured method.

As a guideline, ask your ZEISS service representative about recommendations for data security policy on ZEISS Systems.

Cable type	CAT-6a
Connector type	RJ45 (IEC 60603-7 8P8C Modular connector)
Cable length	Site dependent – customer supplied. Not to exceed total length of 100 m.
Protocol	Ethernet 10BASE-T/100BASE-TX/1000BASE-T

2.4.1 ZEISS Predictive Service

ZEISS Predictive Service is used for condition monitoring by systematic retrieval of relevant instrument health information and its server based processing. The goal is to detect deviations in the instrument performance before they impair the user’s result or even result in unplanned downtime. For details, ask the ZEISS service representative about recommendations for data security policy on ZEISS Systems.

For predictive service, we require the above network connectivity and predictive service will operate under the parameters shown in the table below.

Ports	443
Protocols	HTTPS, secure websocket
URL of ZEISS server	predictive-service.zeiss.com
IP addresses	52.174.243.245
Connection security	TLS 1.2 with AES 256 bit
Supported proxy settings for installation	<ul style="list-style-type: none"> ▪ No authentication ▪ Basic authentication ▪ Digest authentication ▪ NTLM authentication
Available and patched local area network connected to ZEISS system PC	RJ 45 connector for LAN
Security patches and measures according to your local IT security standards	<p>e. g. antivirus software, installed and maintained by customer/operator</p> <p>For details, ask your ZEISS Sales & Service Partner about recommendations for data security policy on ZEISS Microscopy Systems.</p>

2.5 Safety and Radiation Information

2.5.1 Biosafety Level of the Laboratory

The customer should inform ZEISS of the biosafety level of the installation site. Access to the system, safety training, correct safety dress code and use of tools and test equipment needs to be clarified for specified laboratories (World Health Organisation Laboratory Biosafety Manual 3).

Biosafety Level	Description
1	Suitable for work with well-characterized agents which do not cause disease in healthy humans. In general, these agents should pose minimal potential hazard to laboratory personnel and the environment.
2	Laboratories maintain the same standard microbial practices as BSL-1 labs, but also includes enhanced measures due to the potential risk of the aforementioned microbes. Personnel working in BSL-2 labs are expected to take even greater care to prevent injuries such as cuts and other breaches of the skin, as well as ingestion and mucous membrane exposures.

Biosafety Level	Description
3	Laboratory typically includes work on microbes that are either indigenous or exotic, and can cause serious or potentially lethal disease through inhalation. Examples of microbes worked within a BSL-3 include yellow fever, West Nile virus, and the bacteria that causes tuberculosis.
4	Labs are rare. However, some do exist in a small number of places in the US and around the world. As the highest level of biological safety, a BSL-4 lab consists of work with highly dangerous and exotic microbes. Infections caused by these types of microbes are frequently fatal, since there are no available treatments or vaccines. Two examples of such microbes include Ebola and Marburg viruses.

Tab. 2: Biosafety Level



2.6 Transport and Storage

The following regulations must be observed before and during transport:

- Use devices (e.g. handles, fork lifts or hand pallet trucks) to transport the microscope safely to the installation room. The microscope may only be transported in air-suspended vehicles. Devices for transporting the microscope must be rated to handle its full weight and dimensions.
- Moving parts must be secured during transport to prevent them from slipping or tipping over.
- Avoid rocking the transport boxes back and forth.
- Note the weight information on the package and on the shipping document.
- Where possible, the original packaging must be used for shipping or transport.

Info

Detailed information on transport and storage is available from your ZEISS Sales & Service Partner.

Forklift and hand pallet truck

For on-site transport and unloading, a forklift and/or a hand pallet truck are necessary.

- Ensure all hallways and corners are wide enough to be passed by.
- Check the entrance to the building and to the final site for suitable ramps and compliant elevators that can match the weights of the microscope where necessary.
- Some components, such as the tables, are large, heavy or bulky and may require extra assistance to get the units into the allocated site.

Maximum shock resistance

- Do not drop or bump the boxes during movement or storage. Acceleration must not exceed 10 g.
- Evaluate packaging shock and tilting sensors on delivery and after internal transport.

Allowable temperature Allowable temperature during transportation to or between sites:

- Between -40 °C and 70 °C
- Relative humidity less than 75 % at 35 °C

Allowable temperature during storage at site:

- Between 10 °C and 40 °C
- Relative humidity less than 75 % at 40 °C

Info

24 hours before installation of the microscope it is required that the boxes are at recommended room temperature to avoid ingress of humidity, which is harmful to optical paths, and to ensure effective stability of the microscope during installation and testing.

2.6.1 Weight and Sizes of the Transported Goods

Below is an example of the transport boxes that may be delivered (depends on the system configuration):

Box	Approx. Length (mm)	Approx. Width (mm)	Approx. Height (mm)	Approx. Weight (kg)
Pallet box 1	1200	800	1000	90
Pallet box 2	800	600	1000	50
Box for accessories	1080	900	820 - 1000	10 - 30

2.6.2 Weight and Sizes

The table below gives some indication on the approximate weight and sizes of the unpacked items.

Main Components	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
Microscope stand	805	295	707	27 - 36

Info

The table for the system computer is provided by the customer. ZEISS recommends a table with the dimensions 1200 x 800 x 750 mm.

2.7 Disposal

The microscope and its components must not be disposed of as domestic waste or through municipal disposal companies.

If the microscope is resold, the seller shall be obliged to inform the buyer that the microscope must be disposed of in accordance with the regulations.

The customer is responsible for decontamination.

2.7.1 Disposal of Packaging Material

ZEISS prides itself on using mostly recyclable packaging material. Depending on the order, there may be very large wooden crates, electrostatic discharge (ESD) plastic coverings, cardboard boxes and other plastics and packaging material that need to be disposed after the installation.

Please discuss with your ZEISS Sales & Service Partner whether they can be disposed on site or otherwise.

Sustainability of the crates

Depending on the location of the site from the ZEISS production factory, the large wooden crates could be returned to the ZEISS for reuse. However, this decision will be based on logistical considerations such as carbon emission and costs to transport an empty crate.

3 Applicable Standards and Regulations

The Axio Observer 3/5/7 and Axio Observer 3/5/7 materials is a product for research purposes only. It conforms to current international standards as well as to harmonized standards of the applied EU directives.

The Axio Observer 3/5/7 and Axio Observer 3/5/7 materials complies with the following EU directives:

2011/65/EU and delegated directive (EU) 2015/863	Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), amended by Commission Delegated Directive (EU) 2015/863 of 31 March 2015
2012/19/EU	WEEE Directive
2014/30/EU	Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility
2014/35/EU	Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits
(EC) No 1907/2006	Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
EN IEC 61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements IEC 61010-1:2010 in consideration of CSA and UL directives

Not for therapeutic use, treatment, or medical diagnostic evidence. Not all products are available in every country. Observe all general and country-specific safety regulations as well as applicable environmental protection laws and regulations.

ZEISS conforms to the following management system standards: ISO 9001, ISO 13485, ISO 14001, and ISO 50001.

4 Responsibility Checklist

The following is a checklist summarizing the requirements from the preceding sections of this document. The customer should internally evaluate the proposed site to verify its compatibility with all the requirements presented in this document. A ZEISS service representative can assist with the checklist to evaluate which requirements are already met, and which requirements are yet to be completed. ZEISS can be requested to assist with the checking of the environmental conditions.

Environmental conditions in and around a system can change with time due to various changes to the building, new equipment being installed or other reasons. Should the environmental conditions change due to changes to the building or other potential external influence after a site inspection was done, the customer should notify ZEISS to potentially redo the environmental inspection.

Company name:

Address:

Contact person:

Requirements	Fulfillment				Comments
	Yes (Checked and complete)	Partially (Partially fulfilled)	No (Checked but not fulfilled)	N/A (not applicable)	
Environmental Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Acoustic noise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Electromagnetic Compatibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Magnetic Field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Vibration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Location Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Installation Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Space Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Air Conditioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Earthing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Mains Connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Network Connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Safety and Radiation Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ X-Ray	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
▪ Laser Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

Requirements	Fulfillment				Comments
	Yes (Checked and com- plete)	Partially (Partially fulfilled)	No (Checked but not ful- filled)	N/A (not appli- cable)	
<ul style="list-style-type: none"> Biosafety Level of the Laboratory 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Cooling Water Supply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<ul style="list-style-type: none"> Cooling liquid and/or chemicals 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Exhaust Line	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Gas Supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<ul style="list-style-type: none"> Compressed Air 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<ul style="list-style-type: none"> Nitrogen 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
<ul style="list-style-type: none"> Additional Gas 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
Transport, storage and floor load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

<input type="text"/>	<input type="text"/>	<input type="text"/>
Place, date	Name	Signature

The above signature conveys that the Installation Requirements have been read and understood. The customer further understands that some of these requirements are necessary to help assure the safety of personnel, or to prevent damage to the equipment or the facility. The customer further understands that some of the requirements must be fulfilled in order for the equipment to meet its full performance capabilities and for the equipment to be successfully installed.

Comments:

Carl Zeiss Microscopy GmbH
Carl-Zeiss-Promenade 10
07745 Jena
Germany

phone: +49 1803 33 63 34
fax: +49 3641 64 3439

info.microscopy.de@zeiss.com
www.zeiss.com/microscopy