

Prerequisite and confirmation for commissioning (VBI)

V 2.3

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Company	
Date of commissioning	
Contact person	
Contact	
Order number	

General

The prerequisite and confirmation for commissioning (VBI) is used for the preparation and advance information for commissioning by Janitza electronics GmbH. The costs and amount of time required are recorded separately in a quotation or order. The confirmation for correct electrical installation as well as the technical prerequisites for the installation of the software is needed before arrival and the start of the commissioning. If the estimated time required for fault-finding or to clarify the prerequisites/project structure is not sufficient, this time that is needed is invoiced separately. Please read and check the prerequisites carefully and confirm this with your signature and company stamp in the "Electrical installation", "Software installation" and "Network administration" sections. If you have any questions or want to clarify technical details in advance, you can reach us on the technical hotline +49 (0)6441 / 9642-22 or per e-mail at support@janitza.de.

You can find more information on our products, software and Firmware downloads at:
www.janitza.de

General information on the electrical installation of the Janitza measurement devices

Please check the prerequisites and confirm them at the end of this section.

1.01	<i>Access</i>	Check
All devices are fully functional (auxiliary voltage, connection, etc.) and freely accessible for the interface, connection and display.		<input type="checkbox"/>
1.02	<i>Interface</i>	Check
The bus connection between the devices and to the PC is correctly wired and functional. Information on the connection of the interfaces and wiring can be found in the associated operation manual.		<input type="checkbox"/>
1.03	<i>Wiring</i>	Check
A stub has not been formed on the RS485 interface (see graphic). This means all devices have been connected in series to the power analyser.		<input type="checkbox"/>
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid green; padding: 5px; text-align: center;"> <p>Correct</p> </div> <div style="border: 1px solid red; padding: 5px; text-align: center;"> <p>Incorrect</p> </div> <div style="border: 1px solid black; padding: 5px;"> <ul style="list-style-type: none"> Terminal strip in the cabinet. Device with RS485 interface. (without termination resistor) Device with RS485 interface. (with termination resistor on the device) </div> </div>		
1.04	<i>Bus cable</i>	Check
A bus cable has been used for the wiring of the RS485. The cable must be shielded and the wires (A&B) must be twisted with one another. We recommend the following bus cable: Li2YCY(TP)2x2x0.22)		<input type="checkbox"/>
1.05	<i>Master</i>	Check
The following structure has been adhered to in the bus lines: The master (UMG508/ UMG511/ UMG509/ UMG512/ UMG604/ UMG605/ UMG96RM-E/ ProData 2) is the first participant on the bus.		<input type="checkbox"/>

1.06	<i>RS485</i>	Check
<p>With UMG508 / UMG511 the requisite Profibus connector has been used for the RS485 interface. The Profibus connector is essential as the RS485 interface is connected to the internal termination resistor.</p> <p>https://www.janitza.de/d-sub-busstecker.html</p>		<input type="checkbox"/>
1.07	<i>Set-up plan</i>	Check
<p>A set-up plan of the bus connection of all participants has been transferred beforehand per e-mail/fax to the responsible technician (support@janitza.de).</p>		<input type="checkbox"/>
1.08	<i>Transformer setting</i>	Check
<p>The transformer settings are implemented by the customer. If the setting of the transformer is part of the commissioning (see specification sheet), a device list with name-related converter data must be transferred in advance to the responsible technician.</p>		<input type="checkbox"/>
1.09	<i>IP addresses</i>	Check
<p>The device names and IP addresses must be defined, documented and communicated to the responsible technician prior to the commissioning.</p> <p>https://share2.janitza.de/s/DHCOddhZqKMkNCd</p>		<input type="checkbox"/>
1.10	<i>Setting</i>	Check
<p>For measurement devices with an Ethernet connection, the IP addresses must be assigned. If the setting of the IP address is part of the commissioning (see specification sheet), a device list with the IP address, subnet mask and gateway must be given in advance to the responsible technician.</p>		<input type="checkbox"/>
1.11	<i>Termination resistor</i>	Check
<p>A termination resistor of 120 Ω must be placed at the beginning and end of a bus lines between A and B. Devices with Profibus connectors are switched to ON.</p>		<input type="checkbox"/>
1.12	<i>Connection</i>	Check
<p>After connecting the measurement devices, the following measurement values must be checked:</p> <ul style="list-style-type: none"> -The active power of the individual phases should be positive. If this is not the case, there is a supply input or a faulty connection (k and l miswired). -A right-hand rotation field must be available. -The CosPhi of the individual phases should be above a realistic value of 0.5 (reference value). If this is not the case, the phase assignments of the current and voltage measurement must be checked. The current and voltage connection must be assigned correctly to the phases. 		<input type="checkbox"/>

1.13	<i>Database</i>	Check
The MySQL / MSSQL database is installed and administered. Important: The management / maintenance of the database is not a component of the commissioning.		<input type="checkbox"/>



For the commissioning, it is important that a local responsible electrician / installer is present on site during the commissioning.

We hereby confirm that all of the above-mentioned points for the commissioning have been completed and observed.

<hr/>	<hr/>	 <hr/>
Contact person for the installation	Contact/phone	Signature/stamp

Software installation and network administration

The following points show the prerequisites and properties of the GridVis evaluation and configuration software (status vers. 7) from Janitza electronics GmbH.

2.01	<i>GridVis licence</i>
<p>In order to activate GridVis, an account is required on our Janitza licence server (https://license.janitza.de/). The account should be created <u>prior to the commissioning</u> by the person responsible. An activation code is required for the Professional, Service and Ultimate editions. The activation code can be purchased from Janitza electronics GmbH. Internet access is required for the activation. Further information at:</p> <p>https://www.janitza.de/</p>	

2.02	<i>System requirements</i>
<p>The GridVis evaluation and configuration software requires the following system requirements:</p> <ul style="list-style-type: none"> • Up-to-date processor architecture -Recommended: Intel Xeon (server suitable) • RAM: Min. 8 GB RAM (standard database) -Recommend: 16 GB (MySQL, MSSQL database) • Installation storage space: 2 GB • Measurement data storage space: Depending on the number of measurement data, storage depth and archiving period • 64-bit system (32BIT is no longer supported) • Recommended and optimized screen resolution min. 1280 x 960 pixels 	


2.03	<i>Project path</i>
<p>The project must NOT be placed on a network drive. Projects must each be placed locally on the client computers.</p>	

2.04	<i>Supported operating systems</i>
<p>The following operating systems are supported by the GridVis evaluation and configuration software:</p> <ul style="list-style-type: none"> • Microsoft Windows Server 2008 • Microsoft Windows Server 2012 • Microsoft Windows Server 2016 • Microsoft Windows Server 2019 • Microsoft Windows 8 • Microsoft Windows 10 	

2.05	<i>Supported web browsers</i>
<ul style="list-style-type: none"> • Google Chrome (current version) -recommended • Microsoft Edge • Firefox (current version) 	

2.06	<i>Memory reserves</i>
<p>The memory capacity required for archiving the data depends on the number of measurement devices. Approx. 500MB memory per year can be assumed for one measurement device. (Number of devices x 500 MB x years of archiving). A precise calculation can be carried out with the following Excel sheet: https://share2.janitza.de/s/a71RYpL8f1yhso8</p>	

2.07	<i>GridVis Basic</i>
<p>GridVis Basic is supplied with the Janitza database as standard. A maximum of 5 devices can be integrated in the software.</p>	

2.08	<i>Databases</i>
<ul style="list-style-type: none"> • MSSQL (recommended) <ul style="list-style-type: none"> - MSSQL 2014, 2016 and 2017 are supported. - Express versions aren't supported. • MySQL from (5.7.22) • JanDB – included in the scope of supply. 	
	<p>NOTE! JanDB does not run on network drives and does not provide multi-user support!</p>

2.09	<i>GridVis Basic</i>
<p>The installation/administration of database MySQL/MSSQL database is not a component of the commissioning.</p> <p>The following data must be provided to the person carrying out the commissioning:</p> <ul style="list-style-type: none"> • IP database • Port • Name of the database 	

2.10	<i>Database information</i>
<ul style="list-style-type: none"> • The database users require write and read rights. • The installation "dbcreator" rights are required to create the database. • The database structure is generated by GridVis when the project is created • Ownership rights are required to create a project • The "root" or "SA" user should not be used for GridVis projects • Access to the database with external programs must be made via REST-API. The database structure is not disclosed. <p>You can find more information at: https://share2.janitza.de/s/X96V1vTCRudbPOg</p>	

2.11	<i>Janitza standard database</i>
<ul style="list-style-type: none"> • The standard Janitza DB database can only be used locally. Multiple access is only possible locally (e.g. GridVis Service in the background and GridVis Professional on one computer) ! 	

2.12		GridVis editions			
Designation	Basic	Professional	Service	Ultimate	
Installation (GridVis Desktop)	1	3	5	5	
Installation (Service/virtual server)	0	0	2	2	
Number of devices	5	Unlimited	Unlimited	Unlimited	
Update period	Unlimited	1 year	1 year	1 year	
Telephone support	Unlimited	Unlimited	Unlimited	Unlimited	
Graphs	•	•	• *2	• *2	
Janitza DB / Derby database	•	•	•		
Manual reports	•	•	• *2	• *2	
Graphical programming	•	•	• *2	• *2	
Topology	•	•	• *2	• *2	
Database support MS-SQL / MySQL *1	--	•	•	•	
Automatic read-out	--	•	•	•	
Virtual device	--	•	•	•	
User management	--	•	•	•	
Time planning: Time periods	--	•	•	•	
CSV data import	--	•	•	•	
RCM report		•	•	•	
Time planning: Time periods	--	--	•	•	
PQ reports	--		•	•	
Automatic Excel export	--	--	•	•	
Generic Modbus (integration of external devices)	--	--	•	•	
Graphical programming modules (read/write Modbus)	--	--	• *2	• *2	
Automatic reports	--	--	• *2	• *2	
Online logging	--	--	•	•	
Service (background service)	--	--	•	•	
Alarm management	--	--	•	•	
REST interface	--	--	•	•	
GridVis-Energy web visualisation	--	--	--	•	
Item number	51.00.116	51.00.160	51.00.180	51.00.190	
<i>Item number</i> Update extension per year	--	51.00.161	51.00.181	51.00.191	
<i>Item number</i> Upgrade to next higher stage	--	51.00.162	51.00.182		

*1 SQL database is not included in the scope of supply
*2 This function is only available in conjunction with the GridVis® installation on the desktop

Number of devices: Max. number of simultaneously loaded devices (e.g. within the Basic version: a project with 5 devices or 5 projects with one device).
Update period: Time period in which new versions can be installed free of charge.
Automatic read-out: Device read-out in accordance with freely configurable time plans.
Online logging: Measurement data from devices without memory will be averaged in the GridVis® software.
Service: The GridVis® software runs in the background and is started automatically without user login on the computer and saves the data on the devices. GridVis® Enterprise is included in the package and is required for configuration and data processing.

2.13	<i>Installation directories</i>	
The installation directory can be freely selected locally.		

2.14	<i>Port information</i>	
<p>The following communication ports are required for the transfer of data between the measurement device and the software:</p> <ul style="list-style-type: none"> • HTTP 80 • FTP command port 21, (data port 1024, 1025, 1026, 1027) • Modbus/TCP 502 (4 ports) • Modbus RTU via Ethernet 8000 (1 port) • NTP 123 <p>The following communication ports can also be used:</p> <ul style="list-style-type: none"> • SNMP 161 • BaCnet 47808 		

2.15	<i>Automatic ring buffer read-out</i>	
At least a GridVis Service / Ultimate edition is recommended for automatic ring buffer read-out. The Service reads the devices automatically according to the time plans. The server must run 24/7 for this purpose.		

2.16	<i>GridVis Service / Ultimate information</i>	
<ul style="list-style-type: none"> • The Service / Ultimate edition includes at least one installation for the Desktop and one for the Service • Automatic ring buffer read-out and online read-out can be taken over by the Service • One Service instance supports the management of 400 measurement devices. • The takeover of measurement devices must take place via the web server. The Service is accessible under localhost:8080 with a web browser • The web server port can be changed during the installation • The Service is managed by Windows and does not need a user login. When a restart is carried out, the Service is restarted. 		

2.17	<i>Online read-out</i>	
The GridVis software provides a possibility for recording and archiving measurement values online. This function can be used for measurement devices without a ring buffer (memory), for example. The polling time is adjustable within limits from the GridVis version 7.2.4. The online read-out is available from the GridVis Service edition. The online read-out should be monitored continuously by the GridVis alarm management. The GridVis alarm management can generate an e-mail in the event of a communication failure. An SNMP server (e-mail server provided by the customer) is essential for this function.		

2.18	<i>Server client principle</i>	
Multiple access to a database depends on the database type. The standard JanDB database only supports local access. MySQL and MSSQL databases support multiple access. However, the read and write right must be assigned a GridVis Desktop instance or a GridVis Service instance.		
2.19	<i>NTP - time synchronisation</i>	
Measurement devices of type UMG604, UMG605, UMG508, UMG511, UMG509, UMG512 or UMG96RM-E are equipped with an NTP Client for time synchronisation. The following modes are supported by the devices:		
<ul style="list-style-type: none"> • Active (IP is addressed directly) • Listen (broadcast) 		
2.20	<i>Historical evaluation</i>	
Devices with a ring buffer (memory) are required for a historical evaluation (period evaluation). An alternative is the GridVis Service edition, online recording for archiving can be used here.		
2.21	<i>Modem read-out (UMTS)</i>	
A read-out of the ring buffers from measurement devices UMG605, UMG605, UMG508, UMG509, UMG512 and UMG96RM-E via UMTS are supported by the GridVis only in conjunction with an EasyGateway V50. Please let us advise you in advance about our technology.		



Administrative rights are needed for the installation during the commissioning. Internet access should be available for the GridVis activation. It is advisable to have a responsible person from the on-site IT department present during the commissioning to answer any questions directly

We hereby confirm that all of the above-mentioned information has been completed and observed by Janitza electronics GmbH.

Contact person from the IT department	Contact/phone	Signature/stamp

Special instructions for the electrical installation of the Janitza measurement devices

If commissioning includes a ProData (consumption pulse recording) or an Emax system (peak load management), the following points must be noted:

3.01	<i>ProData special instruction</i>
<p>The pulse values for the ProData (consumption data recording of water/heat amounts, etc.) must be known <u>before</u> the commissioning and must also be sent in advance to the responsible technician per e-mail.</p> <p>Example: PRODATA Digital input 1 = auxiliary building water meter = 1m³ per pulse Digital input 2 = main building heat meter = 1kWh per pulse etc.</p>	

3.02	<i>Emax special instruction (peak load optimisation)</i>
<p>The system is installed fully functional and completely wired. This includes:</p> <ul style="list-style-type: none"> a) For direct measurement <ul style="list-style-type: none"> - Connection of the voltage measurement - Connection of the current measurement - Connection of the supply voltage - Connection of the digital outputs to the switchgear (e.g. protection) - Connection of the reset pulse of the suppliers for synchronisation with the applicable measurement interval (in most cases, a 15-minute measurement interval) - Optional connection of the additional switching modules (FBM) for switching channels 1..64 b) For indirect measurement of quantity signals <ul style="list-style-type: none"> - Power pulses of the supplier on a digital input - Connection of the digital outputs to the switchgear (e.g. protection) - Connection of the reset pulse of the suppliers for synchronisation with the applicable measurement interval (in most cases, a 15-minute measurement interval) - Optional connection of the additional switching modules (FBM) for switching channels 1..64 <p>The following filled-out document is required for the commissioning: https://share2.janitza.de/s/IDddQVIUJ1DBVBa</p>	

Instruction

After the commissioning, the operating personnel should be given instruction on the GridVis evaluation and configuration software. The instruction should be given on the configured computer with access to all measurement points. The instruction includes the following topics:

- Software navigation
- Configuration of the measurement devices
- Evaluation of the historical data (graph, reports)
- Creation of the topology
- Administration of automatic read-out / time setting

Please enter all participants in the list:

The number of participants is used for the preparation. Date and signature are only required after the instruction.

	Participants	Date	Signature
1			
2			
3			
4			
5			
6			
7			

Contents of the commissioning (specification sheet)

The points marked with an “X” define the commissioning tasks. Tasks which are not part of the standard commissioning must also be recorded in the order. The number of measurement points to be integrated as well as the number of software instances to be installed must be defined before the commissioning.

Number of measurement points	
Number of GridVis Desktop instances	
Number of GridVis Service instances	

4.01	<i>Installation</i>	Contents
	Installing the latest GridVis software (creating a project, importing a project)	x

4.02	<i>Configuration</i>	Contents
	Integrating all Janitza measurement points in the GridVis software (connection configuration)	x

4.03	<i>Configuration</i>	Contents
	Configuring the device-specific application (pulse outputs, alarm outputs)	x

4.04	<i>Configuration</i>	Contents
	Configuring automatic read-out / online read-out	x

4.05	<i>Configuration</i>	Contents
	Software /Firmware update	x

4.06	<i>Instruction</i>	Contents
	Instruction on the GridVis software <ul style="list-style-type: none"> • Device management • Graph function • Creating topology 	x

4.07	<i>Configuration</i>	Contents
	Implementing all transformer settings	--
4.08	<i>Configuration</i>	Contents
	Assigning device addresses and IP addresses	--
4.09	<i>Installation</i>	Contents
	Emax (peak load optimisation) commissioning, configuration	--
4.10	<i>Configuration</i>	Contents
	Creating customer-specific topology	--
4.11	<i>Configuration</i>	Contents
	Integrating customer-specific Jasic programs	--
4.12	<i>Configuration</i>	Contents
	Fault-finding, support	--
4.13	<i>Configuration</i>	Contents
	Creating virtual measurement points	--



It is advisable to have the responsible local electrician / installer present during the commissioning in order to answer any questions directly. It would also be desirable if the operator of the system were present to receive instruction. To ensure the smooth running of the commissioning, all points should be completed. Fault-finding due to faulty wiring is charged according to the time incurred. We allow ourselves to charge an amount of 123,75 € for fault-finding (within the scope of our possibilities) for each hour or part thereof attended by the technician.



We would ask for the confirmed return of this document for the assignment of the commissioning. The signed VBI document is a prerequisite for commissioning by Janitza electronics GmbH. Our e-mail address: support @janitza.de

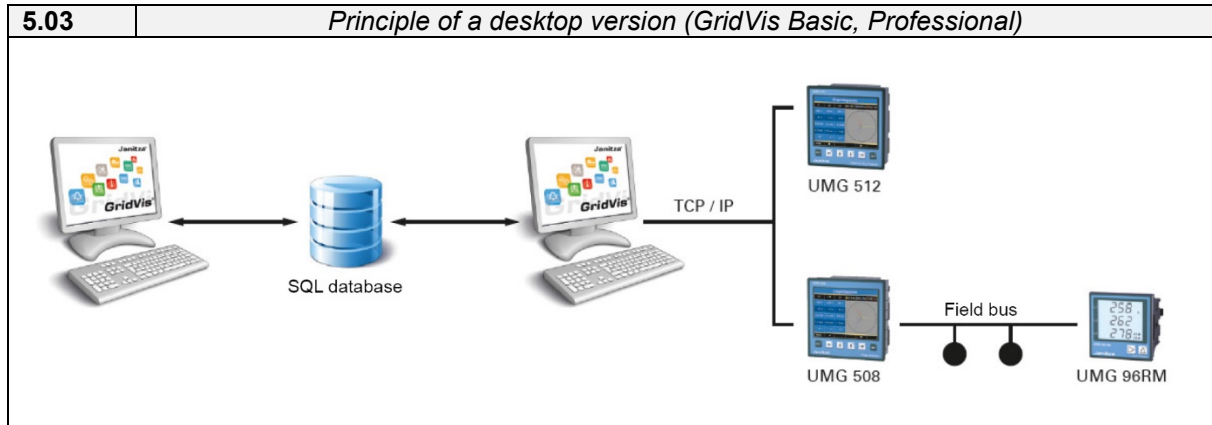
We hereby confirm that only all of the tasks marked above are part of the commissioning by Janitza electronics. Additionally marked tasks must also be recorded in the commissioning order.

_____	_____	_____
Customer	Contact/phone	Signature/stamp

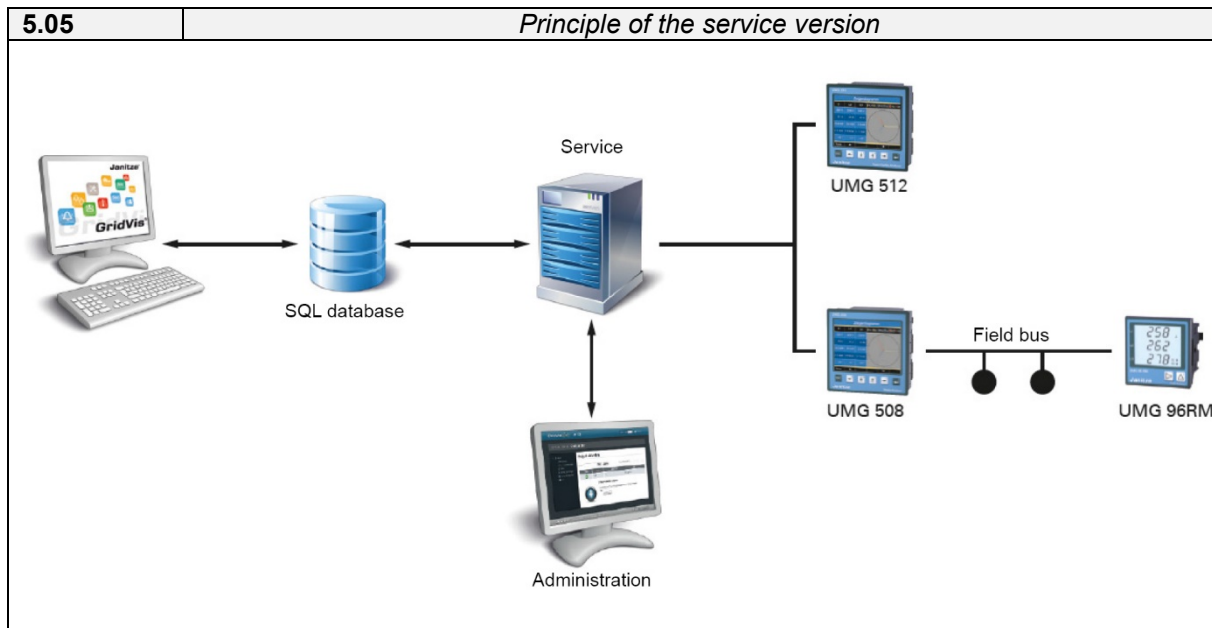
Variants of the software installation

5.01	<i>GridVis Basic</i>
	<ul style="list-style-type: none"> • Freely available licence. Download from the Janitza homepage. • Installation on desktop or notebook • Observe the requisite port enablement, in order to access the devices on the network, see above • No licensing necessary. • Max. 5 devices in total • Limited functional scope, see table above • Data transfer is manually initiated • Possible databases: <ul style="list-style-type: none"> ○ JanDB, database is automatically created in the project directory (freely selectable)

5.02	<i>GridVis Professional</i>
	<ul style="list-style-type: none"> • Download from the Janitza homepage. • License subject to a charge • Installation on: <ul style="list-style-type: none"> ○ Desktop or notebook ○ Also possible on server or VM > RDP • Observe the requisite port enablement, in order to access the devices on the network, see above • Licensing on our licence server • Updates 1 year free of charge, then subject to a charge • Unlimited number of devices simultaneously, max. 3 desktop installations • Expanded functional scope, see table above • Data transfer is initiated manually, or automatically if GridVis is running • Possible databases: <ul style="list-style-type: none"> ○ JanDB (recommended), database is automatically created in the project directory (freely selectable) ○ MySQL ○ MS-SQL • Requisite rights for the SQL databases, see above. • SQL databases can be located on the network • An SQL database is required for the user management



- | | |
|---|-----------------------------------|
| 5.04 | <i>GridVis Service / Ultimate</i> |
| <ul style="list-style-type: none"> • Download from the Janitza homepage. • License subject to a charge • 2 installations necessary: <ul style="list-style-type: none"> ○ Desktop version, program interface <ul style="list-style-type: none"> ▪ Desktop or notebook ▪ Also possible on server or VM > RDP ○ GridVis Service (automatic read-out, reporting, alarms) • Observe the requisite port enablement, in order to access the devices on the network, see above • Licensing on our licence server • Updates 1 year free of charge, then subject to a charge • Unlimited number of devices simultaneously, max. 5 desktop installations • Full functional scope, see table above, automatic read-out, reporting or alarms • Data transfer fully automatic via web service • Possible databases: <ul style="list-style-type: none"> ○ JanDB, not multi-user compatible ○ MySQL ○ MS-SQL • Requisite rights for the SQL databases, see above. • SQL databases can be located on the network • An SQL database is required for the user management | |

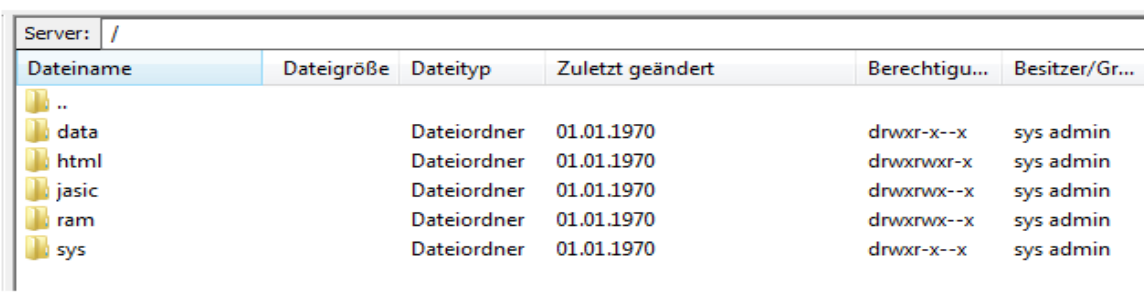


Restrictions with use of virtual machines:

6.01	Virtual machines and the GridVis licence system
<ul style="list-style-type: none"> • Virtual machines are dynamic systems that are not run directly on the computer hardware. Certain parameters can be changed dynamically depending on the requirements and therefore lead to problems within the GridVis licence system. <ul style="list-style-type: none"> ○ The licence of the GridVis software is no longer accepted and reverts to the "GridVis Basic" licence due to the new system parameters of the virtual machines. The GridVis software is only suitable for limited use within a virtual machine (e.g. VMware) • The licence system of the GridVis software checks the following parameters <ul style="list-style-type: none"> ○ CPU Key: HKLM\HARDWARE\DESCRIPTION\System\CentralProcessor\0 Values: "Identifier", "VendorIdentifier" ○ Machine Key: HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion Values: "ProductId", "CurrentVersion" ○ DISK Size of the root partition This value is defined by Java. Can be viewed in ErrorReport, "SystemInfo.xml" file filesystem\root\drive = hard drive name filesystem\root\totalspace = the value ○ MAC List of all MAC addresses (of the computer but only percentages) without a loopback and without a PointToPoint. • However, if the GridVis software is installed in a virtual machine, inform your administrator about the licence system. 	

System description UMG measurement device

7.01	<i>Operating system and web server</i>
	<ul style="list-style-type: none"> • All devices from the UMG 104, 604, 605, 508, 511, 509, 512 range are equipped with an operating system developed by Janitza, with a web server developed by Janitza. • All devices from the UMG 96RM range use Linux as an operating system. The web server with the UMG 96RM-E is based on a Linux-based in-house development. • All devices with an Ethernet interface can be protected with passwords at the following levels: <ul style="list-style-type: none"> ○ Configuration on the device itself or via the homepage ○ Access to the homepage via browser ○ The homepage structure

7.02	<i>File structure on the device</i>																																										
	 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Dateiname</th> <th style="text-align: left;">Dateigröße</th> <th style="text-align: left;">Dateityp</th> <th style="text-align: left;">Zuletzt geändert</th> <th style="text-align: left;">Berechtigu...</th> <th style="text-align: left;">Besitzer/Gr...</th> </tr> </thead> <tbody> <tr> <td>..</td> <td></td> <td>Dateiordner</td> <td>01.01.1970</td> <td>drwxr-x--x</td> <td>sys admin</td> </tr> <tr> <td>data</td> <td></td> <td>Dateiordner</td> <td>01.01.1970</td> <td>drwxrwxr-x</td> <td>sys admin</td> </tr> <tr> <td>html</td> <td></td> <td>Dateiordner</td> <td>01.01.1970</td> <td>drwxrwx--x</td> <td>sys admin</td> </tr> <tr> <td>jasic</td> <td></td> <td>Dateiordner</td> <td>01.01.1970</td> <td>drwxrwx--x</td> <td>sys admin</td> </tr> <tr> <td>ram</td> <td></td> <td>Dateiordner</td> <td>01.01.1970</td> <td>drwxrwx--x</td> <td>sys admin</td> </tr> <tr> <td>sys</td> <td></td> <td>Dateiordner</td> <td>01.01.1970</td> <td>drwxr-x--x</td> <td>sys admin</td> </tr> </tbody> </table> <p>data = storage of the measured values, binary html = website structure jasic = storage of programmed apps (e.g. master/slave web representation) ram = storage of parts of optional apps, for example sys = operating system</p>	Dateiname	Dateigröße	Dateityp	Zuletzt geändert	Berechtigu...	Besitzer/Gr...	..		Dateiordner	01.01.1970	drwxr-x--x	sys admin	data		Dateiordner	01.01.1970	drwxrwxr-x	sys admin	html		Dateiordner	01.01.1970	drwxrwx--x	sys admin	jasic		Dateiordner	01.01.1970	drwxrwx--x	sys admin	ram		Dateiordner	01.01.1970	drwxrwx--x	sys admin	sys		Dateiordner	01.01.1970	drwxr-x--x	sys admin
Dateiname	Dateigröße	Dateityp	Zuletzt geändert	Berechtigu...	Besitzer/Gr...																																						
..		Dateiordner	01.01.1970	drwxr-x--x	sys admin																																						
data		Dateiordner	01.01.1970	drwxrwxr-x	sys admin																																						
html		Dateiordner	01.01.1970	drwxrwx--x	sys admin																																						
jasic		Dateiordner	01.01.1970	drwxrwx--x	sys admin																																						
ram		Dateiordner	01.01.1970	drwxrwx--x	sys admin																																						
sys		Dateiordner	01.01.1970	drwxr-x--x	sys admin																																						