



**Gewässer
Umwelt
Schutz**
GmbH



GGW/AGW Glycol protector

Assembly instructions



Foreword

Always study this assembly instruction manual before installation and initial operation. This assembly instruction manual is part of the protector and should be stored close to the device.

Inhalt

- 3 Product overview
- 4 Notes on safe
- 6 Contents of delivery - GGW/AGW Glycol protec
- 7 Assembly instructions for - GGW/AGW Glycol protec
- 14 Circuit diagram of GGW/AGW Glycol protector switch box/control module
- 15 Connection plan
- 16 Service & maintenance, warning notices and leakages



Product overview

Special sizes:

- GGW/AGW Glycol protector, according to your requirements

Accessory options:

- Leaf protection grating
- Heating kit with heating mats and heating thermostat **HEITHER 3.0** (Heating requirements) for operation of heat pump
- Sensor for second circuit
- Platform to be set up in GGW/AGW Glycol protector
- Fault indicating module (via SMS, Fax oder E-Mail)

Material: GGW Glycol protector stainless 1.4301 in 1,5 mm or
AGW Glycol protector aluminum AlMg³

Process: welding according DIN EN ISO 9606-1

Notes on safety

Always read the manual before initial operation. It contains vital and important tips and references to avert danger to people as well as equipment. Disregarding the operating ma-

nual can lead to endangerment of individuals, the environment and damage to the unit. We reject liability for neglectful operation.

Please note:

- Keep this manual in close proximity to the unit.
- Setup and assembly of GGW/AGW Glycol protector and components to be carried out by qualified professionals only.
- Setup, connection and operation of GGW Glycol protector and components to be operated for its intended purpose according to this instruction as well as in accordance with local rules and regulations.
- The condensation pan must be earthed.
- Alterations and modifications to our product and its components are prohibited and can lead to failure or malfunction.
- Do not operate GGW/AGW Glycol protector and components in areas with a high risk of damage. Specified minimum clearances are to be observed.
- Safe operation of Protector and components can only be guaranteed for properly assembled devices and use as intended by the manufacturer. Safety systems may not be modified or bypassed.
- Do not operate damaged or faulty GGW/AGW Glycol protectors or components.
- Protectors and components require a minimum clearance to flammable, explosives, combustibles, aggressive substances or environments. Assembly, repair and service only to be carried out by authorised qualified professionals. Visual inspection and cleaning may be carried out by operator.
- Appropriate measures to be taken to avert danger to individuals while assembling, repairing, servicing or cleaning GGW/AGW Glycol protector.

Recycling

Disposal and packaging

All products are carefully packaged to withstand transport damage. Please recycle all packaging material according to your countries waste management guidelines.



Warranty

Warranty conditions are outlined in our „Allgemeine Geschäfts- und Lieferbedingungen“ (General terms and conditions). Please contact your local Distributor.

Description

The handling of material endangering water resources is regulated in the Federal water act and the German „Anlagenverordnung“ (AWSV). Our GGW Glycol protector is manufactured from high grade stainless steel or AGW Glycol protector out of aluminum fulfill these compliance with those regulations.

In the event of leakage, escaping oil and glycol (water hazard class one till three, according to legal requirements) will be prevented from escaping to the surrounding environment.

GGW/AGW Glycol protector with its integrated oil separator is designed to withstand the most extreme precipitation events ever recorded in Germany. It will safely drain the liquids away without spilling, thereby preventing overflow.

Contents of delivery *GGW/AGW Glycol protector*



*connecting screws 1/2",
3 per connection level*

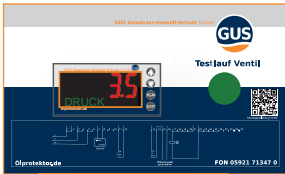


*screw nut 1/2",
3 per connection level*



*washer,
6 per connection level*

Assembly parts for pan according to drawing



*1 switch box (control module)
IP65 protected and UV-resistant*



1 safety valve with actuator



*1 pressure sensor 1/2"
(incl. 5 m cable)*



1 protective cover



*platforms,
either standard
or made to
your requirements*

Note:

Check delivery for completeness

Installation instruction GGW / AGW Glycol protector

When choosing the appropriate size make sure all water hazardous components can be fitted within the GGW/AGW Glycol protector. Make sure the oil separator is not covered by the unit and rain water can reach the pan.

Ensure a supporting structure able to support the weight of the 1.5 mm stainless steel device without deformation.

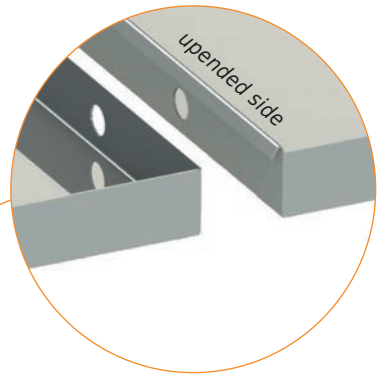
Note:

Installation to be carried out by 2 personnel. More complicated structures will be accompanied by a drawing. Make sure to align pan properly, resting firmly on the supporting structure.

Alignment

The supporting structure is to be aligned horizontally using a spirit level to ensure proper operation. Clean all surfaces before levelling.

Align first part of pan vertically with outer edge of supporting structure. Assembling the pans is illustrated in drawings. Note position of separators.



Assembly

Place second part of pan into first part as per drawing. Follow the same procedure with remaining parts. Make sure not to bend material.



Note:

Make sure pan is resting firmly on supporting structure and observe drying time of loctite.

Connecting

Connect all parts with connecting screws. Use loctite to secure threads. Place washer onto thread and put screw through drilled hole.

Put second washer onto protruding thread. Add more loctite and tighten screw nut by hand. Use same routine for remaining screws.

Use appropriate tool to tighten screws, achieving a watertight connection.

Platform

Apply an oil and water repellant sealing compound to the underside of the platform (e. g. Silicone). Position platform in protector.

Observe drawing. Seal exterior of platform with oil and water repellent material (e. g. Silicone)

Note:

If the pan is accidentally damaged when drilling, perform a pressure test for 24 hours to ensure leak tightness



Fastening

Make sure to connect the device with the platform and the separator to the supporting structure. Be aware that perforation can lead to leakage problems. We recommend a construction surrounding the pan. If you have to drill make sure to seal the hole properly. We can provide information on different fastening methods.

Pressure sensor test port

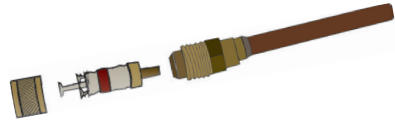
The cold water circuit needs to have a ½" internal threaded connection for the pressure sensor. Make sure the test port can be isolated from the circuit so you can replace the pressure sensor without having to drain the system.



incl. 5 m cable

We can supply you with a copper adapter which includes a Schrader-Valve to be soldered into place. Please take note to remove the Schrader-Valve during soldering.

Screw pressure sensor onto existing or newly attached test port. Pressure sensor to be tightened with max 30 NM to avoid damage. When connecting the pressure sensor, refer to connection diagramm (Page 14). A 5 m cable is included with the pressure sensor for $\frac{1}{2}$ " external thread-connection. Position the two wires according to connection plan.



Safety valve with actuator

Choose one of three actuator positions on valve body. Positioning of actuator determines position of pan. When installing the valve observe direction of flow indicated by arrow on valve. Screw valve onto welded cone at drainage point of GGW Glycol protector.



To allow condensation to be drained, a second $\frac{3}{4}$ " connection can be used. Make sure to provide a bleeding function, thereby eliminating the risk of the separator running dry. Electrical connections to be made according to connection plan.

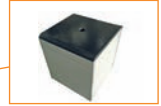


A cover is provided for every valve. Make sure to install it when running the device in an outside area.

Switch box/controlle module



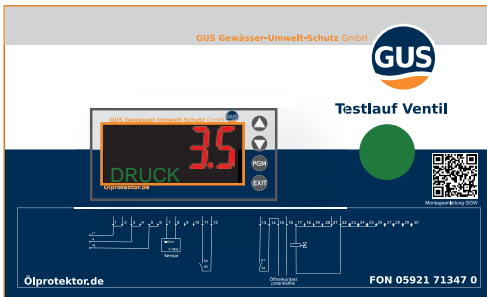
pressure sensor



platform



*protective cover
(per safety valve)*



*switch box (controlle module)
IP65 protected and UV resistant*

The control module is monitoring the Glycol pressure. It is IP65 protected and UV resistant and includes a microprocessor, relays, terminal blocks and complete internal wiring. It is fitted with a push-button to check operation. Pressure fluctuations are monitored and assessed. The valve will be closed in case of leakage. The red signal indicates the current pressure.

Correct operation is indicated by a green **„Druck“** (pressure) sign.

The LED display ticker **„Druckabfall“** (pressure drop) indicates a leak. The green push-button will close the valves for an operational check.

Operation

Different levels of configuration are accessed via key combinations. The User-level is sufficient for device operation.

All other configuration levels are secured with a PIN. Activate User-level by pushing PGM-Key twice. Arrow-key will move cursor to parameter to be adjusted.

Parameters available:

DRUCK (Pressure):
Operating pressure

Choose the parameter using the arrow keys. Press PGM key to activate and change settings with the arrow keys. This setting will be saved automatically after ten seconds. Pressing the PGM key will fast track the procedure.

DRUCK (Pressure)
is the consigned operating pressure.

Note:

Warning!

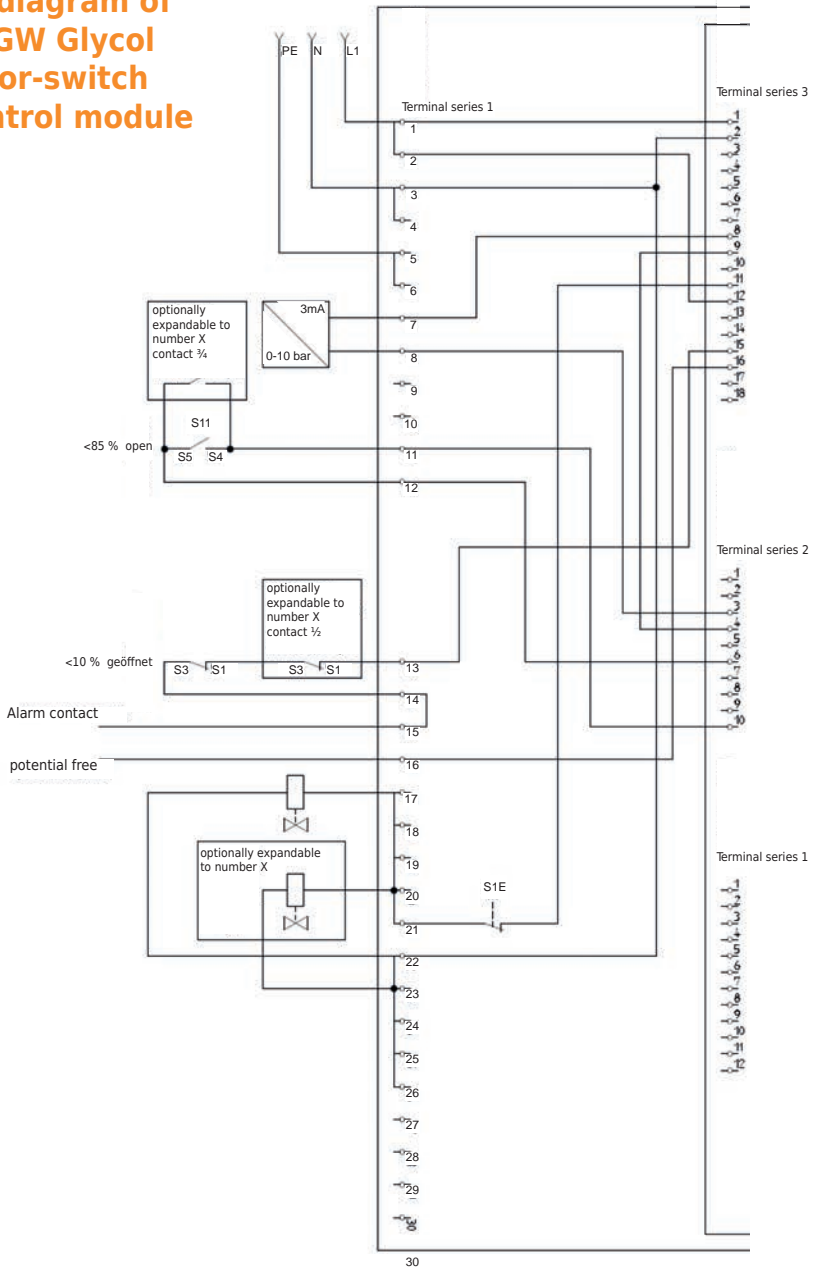
An alert will be send to GLT when valves are completely closed. The control module requires a 230 V supply. Follow connection plan.

All pressure alarms have to be reset. A reset is only possible once correct operating pressure has been restored.

Press „F“/„Exit“-key for two seconds „Ventilsignal“ (Valve signal) appears in Display. A defect valve will also trigger „Ventilsignal“ in Display.

The system distinguishes between Glycol protector errors and errors triggered by loss of pressure.

Circuit diagram of GGW/AGW Glycol protector-switch box/control module



Connection plan

Recommendations for cable routing:

Supply cable for switch box	NXM 3 x 1,5 ²
Control cable for pressure sensor switch box	Oelflex 2 x 0,75 ² (abgeschirmt)
Supply cable for valve switch box	Oelflex 2 x 1,5 ²
Control cable for valve switch box	Oelflex 4 x 1,5 ²

Connection Voltage supply switch box (1.5 mm²)

Ph	Terminal L 1
N	blue terminal strip
PE	green terminal strip

Connect pressure sensor (0.8 mm²)

Terminal block switch box	Terminal block pressure sensor
Terminal 7	Terminal 1 (white)
Terminal 8	Terminal 2 (brown)

Connecting valves (1.5 mm²)

Terminal block switch box	Terminal block valves
Terminal 17	Terminal 1 (brown)
Terminal 23	Terminal 2 (blue)
Terminal 11	Terminal S4 (4)
Terminal 12	Terminal S5 (5)
Terminal 13	Terminal S1 (1)
Terminal 14	Terminal S3 (3)

Note:

Make sure the display is clearly visible when mounting the control module. For any questions regarding assembly, implementation or service please contact our **service telephone at: +49 5921 71347-0.**

UV-resistant if exposed to sun light

Service & maintenance, warning notes und leakage

Service & maintenance

When servicing the unit in regular intervals, always check and clean the GGW/AGW Glycol protector. Leaves and other contaminants can compromise the oil separator's performance.

The oil separator can be rinsed via the water drainage. Within the scope of the maintenance, please press the green button for the control of the valve for 10 seconds in order to remove deposits in the valve and to check the functioning of the fault signaling device.

If there are any water-polluting substances in the GGW/AGW Glycol protector you have to shut down the system immediately and inform your refrigeration and climate expert.

The water-polluting substances are to be disposed of professionally.

Warning notes

Please note that different detergents dissolve oil in water. The GGW/AGW glycol protector must be rinsed with water until no detergent is left in the GGW/AGW glycol protector if such cleaning has been used.

Avoid bi-metal corrosion by keeping other metal parts separate from GGW/AGW Glycol protector.

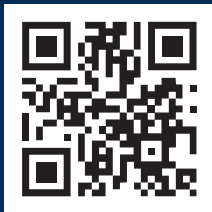
Leakage

Check the GGW/AGW Glycol protector if a leakage is detected. Collected water of the GGW/AGW Glycol protector must be disposed properly. For this purpose a $\frac{3}{4}$ " connection can be screwed on the drain and the process can be opened by acknowledging the error message. Alternative: Open the valve manually with the supplied manual drive.

Note:

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