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GREISINGER

Member of GHM GROUP

Installation and Operating Manual

Alarm- and protection device
Leak-water detector

GEWAS 191 AN / N

CE

☞ Please read these instructions carefully before use!

☞ Please consider the safety instructions!

☞ Please keep for future reference!

Made in Germany

WEEE-Reg.-Nr. DE 93889386

GHMGROUP
Specialists by Competence.

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1 Intended use

The GEWAS 191 N / AN is an alarm and protection device. The solenoid valve is to be mounted tight between a water tap with ¾" thread and the machine hose.
If a water film is detected at the sensor, the valve will be closed and the unit warns with an intense signal tone.
The GEWAS 191 AN also switches off the device (e.g. washing machine, dish washer) connected to the control device.

To be able to operate safely the device has to be checked for its correct function at regular basis. (please refer to Operating and maintenance advices of this document).

Operation is only allowed with the defined scope of supply or with original accessory for this device.

Application range:

- Alarm and protection device for prevention of water damage
- Observation of devices and machines with water-connection

Another or a further use is considered as not being in compliance with the intended use.
The operator of the device is liable for any resulting damage or harm.

Follow the installation description, when connecting to water supply.

2 General Note

Read this document carefully and get used to the operation of the device before you use it. Keep this document within easy reach near the device for consulting in case of doubt.

3 Scope of supply

1 x control device GEWAS 191 N or GEWAS 191 AN
1 x water sensor GWF-1S
1 x solenoid GMV 191 / 12VDC with integrated sieve sealing

solenoid valve
with integrated sieve sealing-ring

GEWAS control unit

water sensor

4 Safety

4.1 Safety signs and symbols

Warnings are labelled in this document with the followings signs:

Caution! This symbol warns of imminent danger, death, serious injuries and significant damage to property at non-observance.

Note! This symbol point out processes which can indirectly influence operation or provoke unforeseen reactions at non-observance.

4.2 Safety requirements

This device has been designed and tested in accordance with the safety regulations for electronic devices. However, its trouble-free operation and reliability cannot be guaranteed unless the standard safety measures and special safety advises given in this manual will be adhered to when using the device.

1. Trouble-free operation and reliability of the device can only be guaranteed if the device is not subjected to any other climatic conditions than those stated under "specification".
2. Do not modify the device and do not operate with other components than allowed for this device
3. Make sure to observe the standard regulations and safety instructions for electric, heavy and weak current plants, in particular the national safety regulations (e.g. VDE0100).
4. 

When there is a risk whatsoever involved in running it, the device has to be switched off immediately and to be marked accordingly to avoid re-starting it.
Operator safety may be a risk when the device:
   - has visible damages
   - is not working as specified
   - has been stored under unsuitable conditions for a longer time.

   In case of doubt, please return device to manufacturer for repair or maintenance.
5. 

Warning: Do not use this product as safety or emergency stop devices, or in any other application were failure of the product could result in personal injury or material damage.
Failure to comply with these instructions could result in death or serious injury and material damage.
6. 

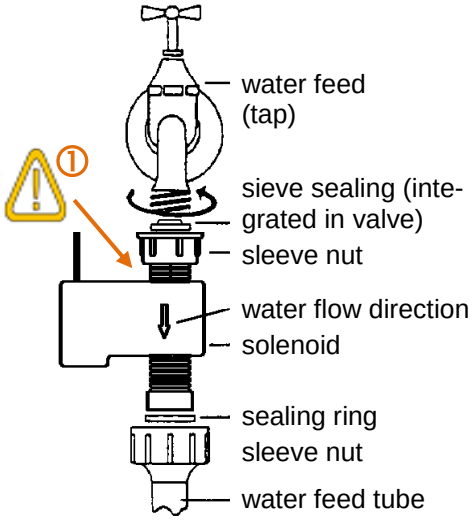
Due to the operation on water net there is the risk of electrical hazard in case of erroneous water installation. The device therefore is only allowed to be operated with suitable means of protection (e.g. residual current circuit-breaker with current <= 30mA)
7. 

The integrated mains socket is protected against touch, however, in unfortunate constellation there may be the risk of electrical hazard, e.g. when having kids in household, using a wire or a metal device, narrow enough. The device therefore is only allowed to be operated with suitable means of protection (e.g. child protection accessory and residual current circuit-breaker with current <= 30mA)
8. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
   Children shall not play with the appliance.
   Cleaning and user maintenance shall not be made by children without supervision.

5 Installation and commissioning

5.1 Installation of the solenoid valve

- Lock water feed lines.
- Insert sieve sealing ring.
  Please take care having clean sealing surfaces.
- Connect solenoid with sleeve nut to the water feed by means of a right-hand turn.
- Check leak tightness by turning on the water supply.
  → In case of leakage repeat the process above.
- Screw water connection tube onto the outlet of the solenoid valve (use sealing ring or make sure that the tube itself is properly sealed!).



If the installation has been carried out correctly the sleeve nut can be tightened by hand. In case of leakage check if sealing has been inserted and if all sealing surfaces are clean; also check if the installation has been carried out correctly. If necessary repeat installation process.

Hint for commissioning: The solenoid will not be opened unless it has been connected to the activated control device.

Please ensure that the connection to the water feed are completely tight !!
A water leakage on this position can´t be stoped by the solenoid!

Do not apply turning force at housing, while mounted at tap - upper valve connection could be unscrewed and therefore getting untight !

5.2 Installation of the control unit and the water sensor

- Make a rule to read the operating and maintenance advices before starting up the device.
- Place water sensor at desired position and fix it, if necessary.
  Note: Choose best position for the water sensor, that both metal electrodes come into contact with water as early and reliable as possible! (Keep an eye on floor unevenness).Protect against unintended shifting, e.g. by using a screw or mounting tape.
- Please take care that the sensor electrodes do not touch any metallic surfaces, this may cause errors.
- Connect water sensor to the control unit.
- Open water feed line unless you have already done so.
- Plug in control device into a socket outlet with earthing contact.
  => Device is now active, the solenoid is open.
- Check water connection tubes for leakage.
- Connect device which is to be switched off in case of alarm to the socket outlet with earthing contact of the control device.

! Well done, your GEWAS device is now ready for use !

6 Function

If the water film at the water sensor exceeds 0.5 mm the control device automatically triggers an audible alarm and switches off the solenoid.
The GEWAS 191 AN also switches off the device connected to the control device.

To remove the alarm disconnect control device for a short time.
Note: The alarm will also be activated if the water sensor has been disconnected.

7 Alarm und operating signals

audible alarm at 1s interval:	alarm condition
audible alarm, short signal every 10s:	solenoid is not connected or defective
solenoid continuously switches on and of	insufficient power supply
audible alarm at 2.5s interval	insufficient power supply.

8 What to do in case of alarm

- The control device can only be switched off by disconnecting it.
- Seek and eliminate error causes.
- Possible error causes:
  - A water film is located at the water sensor.
  - The contacts of the water sensor are bypassed (e.g. via a metal surface)
  - The water sensor has been disconnected or is defective.
- Reconnect the control device.

9 Operating and maintenance advices

1 For reliable operation of the GEWAS the monitored liquid has to have a minimum conductivity of at least 50 µS/cm. Liquids with lower conductivity (e.g. deionised/demineralised water) a reliable detection is not possible.

2 The solenoid is servo-controlled; i.e. the pressure at the infeed side of the solenoid needs to exceed the outlet side pressure by at least 50 kPa (0.5 bar). This condition is fulfilled if the water feed line is open and the water can flow freely at the solenoid outlet. Unless this condition has been fulfilled the solenoid cannot open. In such a case remedy fault cause (e.g. activate water infeed of the device connected), disconnect control device and reconnect again.

3 When dead the solenoid will always be closed. In order to guarantee the required sealing properties, you have to make sure that there are no foreign objects (stones, sand etc.) in the solenoid line. We, therefore, recommend to clean the sieve insert of the solenoid regularly.

4 In order to ensure long-time and trouble-free operation of the device, the functioning of the device has to be checked at regular intervals (as is the case with any safety device). To do so produce an alarm at least once a month by short-circuiting both water sensor contacts by means of a metal object (e.g. spoon, knife, etc.). Disconnect device and reconnect the device.
The solenoid has to react with a clearly audible "clack" sound. This is to make sure that even if the water is calcareous and even if it is not regularly operated the solenoid is fully operational regardless of the calcareous deposits.

5 The control device should not operate without solenoid connected!
If the function of the solenoid is not required the solenoid must still be connected to the control device. The connection of the solenoid to the water feed is not essential then.

6 The device has to be treated and handled carefully in accordance with the above specifications (do not throw, bump against, etc.). Protect from soiling.

7 

!!! Do NOT use the GEWAS in a humid environment !!!

10 Decommissioning, reshipment and disposal

10.1 Decommissioning

Always disconnect the device before from its supply before decommission (e.g. at fuse). Valid general safety requirements shall be observed.
Please also make sure that connected Loads are disconnected also and are in a safe state.

10.2 Reshipment and disposal

All devices returned to the manufacturer have to be free of any residual of measuring media and other hazardous substances.
Measuring residuals at housing or sensor may be a risk for persons or environment

Use an adequate transport package for reshipment, especially for fully functional devices.
Please make sure that the device is protected in the package by enough packing materials.
Add the completed reshipment form of the GHM website
http://www.ghm-messtechnik.de/downloads/ghm-formulare.html.

The device must not be disposed in the unsorted municipal waste! Send the device directly to us (sufficiently stamped), considering the above if it should be disposed.
We will dispose the device appropriate and environmentally sound.

11 Specification

Power supply: 220 - 240V, 50/60Hz (control unit)

Power consumption: approx. 3 W

Sensor input: Connection for water sensor with max. 10 m cable length

Control output: by socket outlet in device housing (only for GEWAS 191 AN)
(*at GEWAS 191N the outlet is direct connected to the plug)*

Switching voltage: equivalent to supply voltage

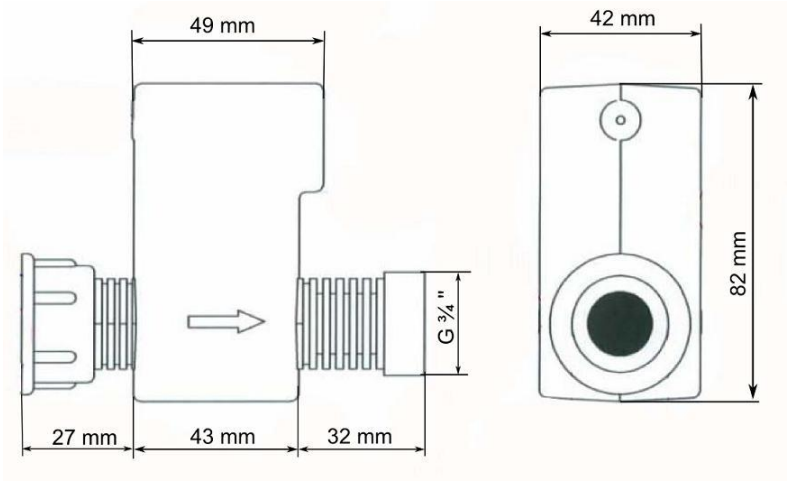
Switching current: max. 16A (ohmic load)

Solenoid valve: max. working pressure: 600 kPa (6 bar) servo controlled
pressure difference infeed/outfeed >50 kPa (0,5 bar)

Working temperature: 0 to 50 °C

Dimensions:

control unit: 110 x 65 x 45 mm (L x W x H)
solenoid valve: 82 x 102 x 42 mm (L x W x H)



Directives and standards: The instruments confirm to following European Directives:

2014/30/EU - EMC Directive
2014/35 EU - Low Voltage directive
2011/65/EU - RoHS

Applied harmonized standards:

EN 61326-1 : 2013	emissions level: class B
	emi immunity according to table 2
	Additional fault: <1 %
EN 60335-1 : 2012	protection IP20
	pollution degree 2

Other approvals:
The solenoid valves are in accordance with the Regulation (EU) 1183/2012 and 1935/2004. The solenoid valves are according to the requirements of the KTW recommendation, the KTW-Leitlinie of the German Umweltbundesamt (Bgesundhbl. 2005) and the DVGW-worksheet W270.