

Alarm- and protection device Leak-water detector

Operating Manual

GEWAS 181 A



WEEE-Reg.-Nr. DE93889386

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1 Intended use

The GEWAS 181 A with solenoid valve of brass is an alarm and protection device. The solenoid valve is intended the direct installation in tubes.

If a water film is detected at the sensor, the valve will be closed and the unit warns with an intense signal tone.

Application range:

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

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 unit GEWAS 181A with switchable socket
1	x	water sensor GWF-1S
1	x	solenoid valve GMV ½" H (rigid attached on device)
1	x	sieve sealing-ring

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. 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).
3.  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.

DANGER

4.  **Warning:** Do not use this product as safety or emergency stop devices, or in any other application where 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.

DANGER

5 Components



solenoid valve with sieve sealing-ring



GEWAS control unit



adapter plug with switchable protective contact socket



water sensor

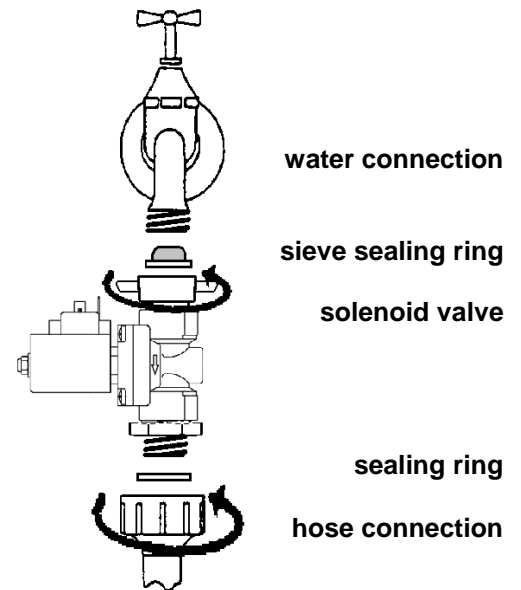
6 Installation and commissioning

6.1 Installation of the solenoid valve

- Lock water feed lines.
- Insert sieve sealing ring.
Please take care having clean sealing surfaces.
- Screw solenoid valve via turn able connecting nut on the water supply. Keep the solenoid valve in desired position.
- 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 existing sealing ring or make sure that the tube itself is properly sealed!).

The brushing can be hand tightened if the installation was carried out correctly. In case of leakage check weather sealing ring has been inserted correctly or all sealing surfaces are clean, also check weather installation has been carried out correctly. Repeat installation process if.

Hint for commissioning: The solenoid valve will only be opened if the control unit device has been turned on.



6.2 Installation of the control unit and the water sensor

- Make a rule to read the operating and maintenance advices before starting up the device.
- Use bail to hang the device on desired place, align the device. Remove the protective film from the adhesive tape at the device's back and press on the device for locating the device.
- Place the water sensor and fixate it when needed.
Please take care that the sensor electrodes do not touch any metallic surfaces, this may cause errors.
- Connect water sensor to the control unit.
- When not already done turn on water supply for the solenoid valve.
- Plug the control unit's adapter plug into a socket outlet with protective contact.
- Turn on the control unit via power switch and pressing service button at the same time.
→ A red LED indicates the device is operating and the solenoid valve has opened.
- Check water connection tubes for leakage.
- Connect washing machine resp. dishwasher to the protective contact socket of the control unit.
- **FUNCTION TEST:** Check the alarm function via bypassing the water sensor electrodes (e.g. via touching both electrodes).
→ The device will now start its alarm; the solenoid valve will be closed. Turn off and on the control unit.

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

7 Function

When a water film at the water sensor exceeds 0.5 mm, the control unit will automatically initiate an audible alarm, will be closing the solenoid valve and will turn off the device connected to the power sockets of the device.

To remove the alarm the control unit has to be turned off.

When the water sensor is disconnected from the device, the alarm will also be initiated.

8 Operating elements

Switch „POWER“

Position 0: GEWAS-control unit is switched off, protective contact socket is powered off, solenoid valve is closed

Position 1: GEWAS-control unit is switched off, monitoring is active, water can flow.
protective contact socket is powered except there is an alarm condition

Button „SERVICE“



In normal operation (no alarm) the valve is operated in a low power mode.

In case of calcification or similar soiling the valve may be locked in position. With the SERVICE button the operation current can be raised for a short time, which helps a blocked low power valve to operate regular again.

9 What to do in case of alarm

- Turn off the possibly connected device and the GEWAS control unit (POWER to „0“).
- 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.
- Turn on the GEWAS control unit (POWER to „1“) and press service button at the same time.
- Turn on the connected device (if necessary).

10 Operating and maintenance advices

- 1  **Please Note: When the control unit is turned off, the power socket could be electrically live, and for that, a connected device is turned on!**
Attention: Before turning off the control unit, for turning off the alarm, the device connected to the GEWAS 181A (e.g. Washing machine, dish washer, etc.) should be turned off, because it will be turned on when you deactivate the control unit device.
- 2 The solenoid valve is servo controlled. This means that the pressure on the water inlet must be at least 0.5 bar higher than the pressure on the water outlet. This will be circumstance when the water flows out of the outlet with opened water supply. When this condition is not fulfilled, the solenoid valve will not be able to open.
- 3 Pressing the SERVICE button on turning on the device is not required. This is for deactivating the internal power saving circuit in order to raise the pull-in power of the solenoid valve to about 4-times. This is to prevent that in the course of time calcification of the solenoid valve make it opening difficulty resp. inhibit opening.
- 4 It may happen that the solenoid valve closes and does not open again after a short electrical power outage. In this case you have to turn the control unit off and on again → the solenoid valve will open again.
- 5 In order to ensure long-time and trouble-free operation the device has to be checked regularly (like its usual with any safety device). Therefore the sensor contacts of the water sensor have to be bypassed (by a spoon, knife, etc.) at least every month. When doing so the solenoid valve should react with an audible .clack.. This is for making sure that, even with calcareous water and not regularly operated, the solenoid valve is fully operational regardless of the calcareous deposits.
- 6 The solenoid valve is operated with an internal power saving circuit. The total power consumption at permanent operation will only be 4 W. It is normal that the solenoid valve is warming up (the magnetic head to approx. 50°C and the brass housing will get hand-hot).
- 7 In order to ensure tightness in perpetuity, foreign substances (like stones, sand, etc.) must be kept away from the tube of solenoid valve. Therefore clean the screen of the solenoid valve from time to time
- 8 The device has to be treated and handled carefully in accordance with the above specification (do not throw, do not bump into sth. etc.).
- 9  **!!! Do NOT use the GEWAS in a humid environment !!!**
- 10 Keep the magnetic head dry! Water may destroy the magnetic head!
Pay attention that the water tap is tight in order to prevent that no water drops onto the solenoid valve resp. the magnetic head.

11 Specification

Power supply:	220/240V, 50/60Hz (control unit)
Power consumption:	approx. 2.5 W (control unit, approx. 6W incl. solenoid valve)
Control output:	via power socket in the adapter plug with grounding contact
Switching voltage:	equivalent to supply voltage
Switching current:	max. 16A (ohmic load)
Solenoid valve:	1/2" brass-solenoid valve with 3/4" screw connection hand assembly
Working pressure:	10 bar, servo controlled (pressure difference inlet/outlet >0,5 bar)
Operating voltage:	200 VDC resp. 100 VDC in power saving mode
Working temperature:	0 to 50 °C
Dimension:	
control unit:	110 x 65 x 45 mm (L x W x H)
solenoid valve:	approx. 82 x 88 x 72 mm
EMC:	The device are corresponding to the essential protection ratings established in the Regulations of the Council for the Approximation of Legislation for the member countries regarding electromagnetic compatibility (2004/108/EG).

12 Disposal instructions

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