

Alarm- and Protectiondevice Water monitor

as off version V2.1

Operating Manual

GEWAS 181 A - 1/2" / - 3/4" / - 1



Made in
Germany

WEEE-Reg.-Nr. DE93889386

Index

1	INTENDED USE	2
2	GENERAL NOTE	2
3	OPERATING AND MAINTENANCE ADVICES.....	2
4	SAFETY REQUIREMENTS	3
5	INSTALLATION AND COMMISSIONING	3
5.1	INSTALLATION OF THE SOLENOID VALVE	3
5.2	INSTALLATION OF THE CONTROLLING DEVICE AND THE WATER SENSOR	3
6	FUNCTION	4
7	WHAT TO DO IN CASE OF ALARM.....	4
8	SCOPE OF SUPPLY.....	4
9	SPECIFICATION.....	4
10	RESHIPMENT AND DISPOSAL	4

1 Intended use

The GEWAS 181 A - 1/2" / - 3/4" / - 1 with solenoid valve of brass is an alarm and protection device. The solenoid valve is intended the direct installation in tubes.

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 Operating and maintenance advices

1. **Please Note: When the controlling device is turned off, the power socket could be electrically live, and for that, a connected device is turned on!**
Attention: Before turning off the controlling device, 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 controlling 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. When this condition happens eliminate the errors (e.g. activate the water inlet of the connected device) and turn on controlling device again.
3. The solenoid valve is always closed when no voltage is attached. 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.
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 controlling device 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 2 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. Pressing the start 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.
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.

4 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 can not 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 the device to manufacturer for repair or maintenance.
4. **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

5 Installation and commissioning

5.1 Installation of the solenoid valve

- Lock water feed lines.
- Insert sealing ring. Please take care having clean sealing surfaces.
- Screw solenoid valve via turnable 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 necessary. Hint for commissioning: The solenoid valve will only be opened if the controlling device has been turned on.

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

5.2 Installation of the controlling device and the water sensor

- Make it a rule to read the operating and maintenance advises 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 controlling device.
- When not already done turn on water supply for the solenoid valve.
- Plug the controlling device's adapter plug into a socket outlet with earthing contact.
- Turn on the controlling device via power switch and pressing start 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 grounding contact socket outlet of the controlling device
- 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 controlling device.

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

6 Function

When a water film at the water sensor exceeds 0.5 mm, the controlling device 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 controlling device has to be turned off. When the water sensor is disconnected from the device, the alarm will also be initiated (GEWAS 181 or GEWAS 182).

7 What to do in case of alarm

- Turn off controlling device and possibly connected device
- 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 controlling device and press start button at the same time.
- Turn on the connected device (if necessary).

8 Scope of supply

1	x	controlling device GEWAS 181 A
1	x	water sensor GWF-1S
1	x	solenoid valve GMV 1/2", GMV 3/4" resp. GMV 1" (responding to type - attached on device)

9 Specification

Power supply:	220/240V 50/60Hz (controlling device)
Power consumption:	approx. 3 W
Control output:	via power socket in the adapter plug with grounding contact.
Switching voltage:	equivalent to supply voltage
Switching current:	max. 16A (ohm resistive load)
Solenoid valve:	1/2", 3/4" resp 1" brass-solenoid valve with female screw thread on both sides for building in pipes.
Flow rate:	GMV1/2" approx 20 l/min, GMV3/4" approx. 91.5 l/min, GMV1" approx. 141.5 l/min
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:	controlling device: 110 x 65 x 45 mm (L x W x H)
solenoid valve:	GMV1/2" approx. 55 x 68 x 88mm, GMV3/4" approx. 80 x 72 x 98mm, GMV1" approx. 93 x 80 x 114mm
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 (89/336 EWG).

10 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.