

water leak protect

brief description

The new **water leak protect** system gives you a high level of protection against water floods.

This new developed leakage protection system is using motion detectors and sensors and works on the 868 MHz ISM band.

The shut-off valve is normally in the **closed position** and opens only after receiving a wireless opening signal from a motion detector or other sensors.

The continuously working pressure sensor detects small leakages even the dripping tap.

aquastop and flow sensors guarantee water supply for the dishwasher and washing machine without a person present.

The flow sensor detects the opening of the water supply valve for dishwashers, washing machines, hygienic water circulation, side by side refrigerator, outdoor faucets etc. and send a wireless signals for opening / closing of the shut-off valve.

The **water leak protect** system is the best insurance against water floods in your home.

Technical advantages of the system

- Reduction of open times of shut-off valve to the times water is needed
- Reduction of time in which a water leakage can occur in the piping system controlled by the water leak protection system
- Alarm is triggered in case the pressure sensor detects a pressure drop or the water sensor detects water and the shut-off valve will stay closed or will be closed
- Leakages will be detected immediately, also the dripping faucet
- Wireless transmission, 868 MHz ISM band
- No pre-selected opening times or flow rate
- System works full automatically

Functional characteristics

The shut-off valve is in the **closed position** and will open and shut on wireless signals.

The motion detector detects the presence of a person and sends a wireless signal to the control unit, the shut-off valve opens. Once the motion detector does not detect a person any longer, it sends a wireless closing signal.

The aquastop sensor detects the magnetic field of the solenoid valve mounted on the dishwasher or washing machine and the transmitter sends a wireless opening signal to the control unit to open the shut-off valve. After the solenoid valve is closed, a wireless closing signal is sent to close the shut off valve.

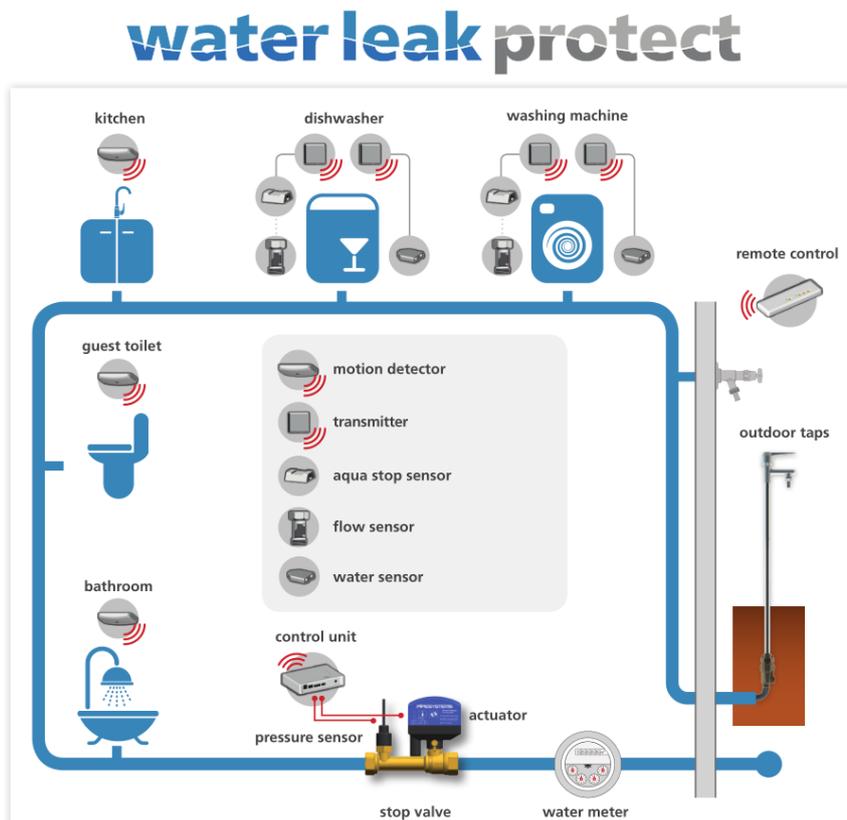
The flow sensor detects opening and closing of the water supply valve for dishwashers, washing machines, hygienic water circulation, waterline connected side by side refrigerator, outdoor faucets etc. and sends a wireless signal for opening / closing of the shut-off valve.

The transmitter of the water sensor sends a signal to the control unit to close the shut-off valve and trigger an alarm when water is detected.

The remote control is used for opening the shut-off valve for outdoor faucets, taps and hydrants.

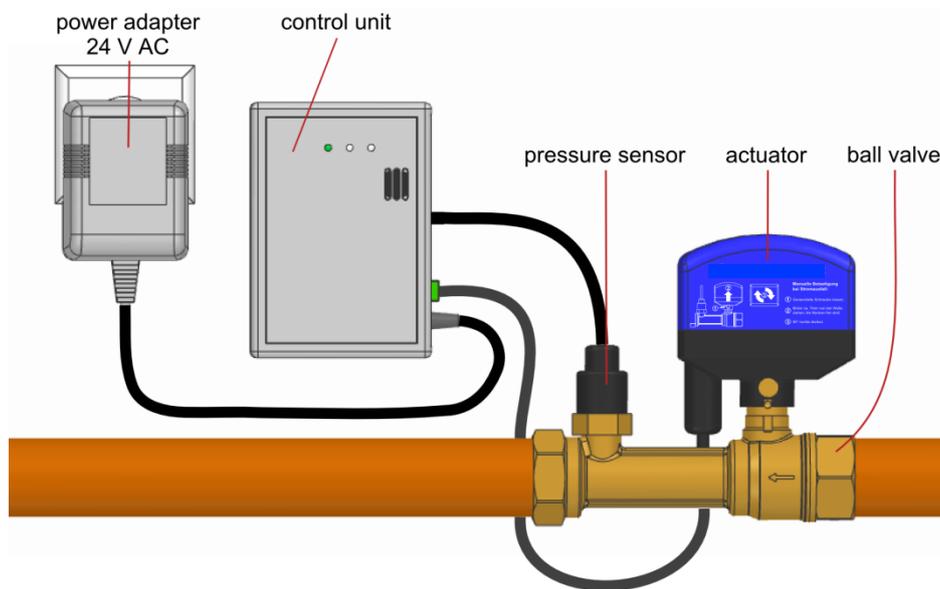
The pressure sensor constantly checks the pressure in the system and keeps the shut-off valve closed when a pressure drop is detected and triggers a beep and light signal.

The alarm condition can be stopped by pressing the red reset key on the control unit.



Components of system

Shut-off valve, control unit and pressure sensor



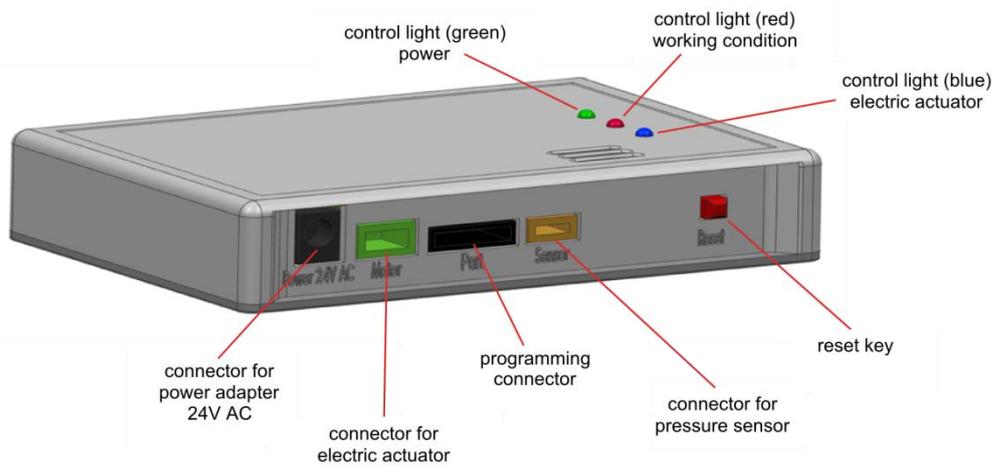
Shut-off valve with actuator

- Actuator opens / closes valve

Pressure sensor

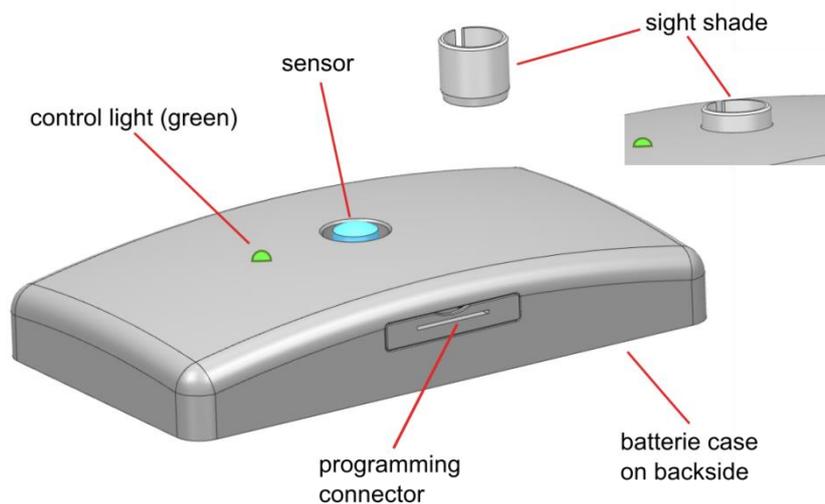
- The pressure sensor continuously checks the line pressure during the time when no sensor requires water and when the shut-off valve is closed
- The control unit checks the line pressure and triggers an alarm in case of a pressure drop / leakage
- If the alarm is triggered the shut-off valve will be closed and an audio and light signal is triggered
- The alarm condition can be cancelled by pressing the red reset key on the control unit and the system will go back into normal working condition

Control unit



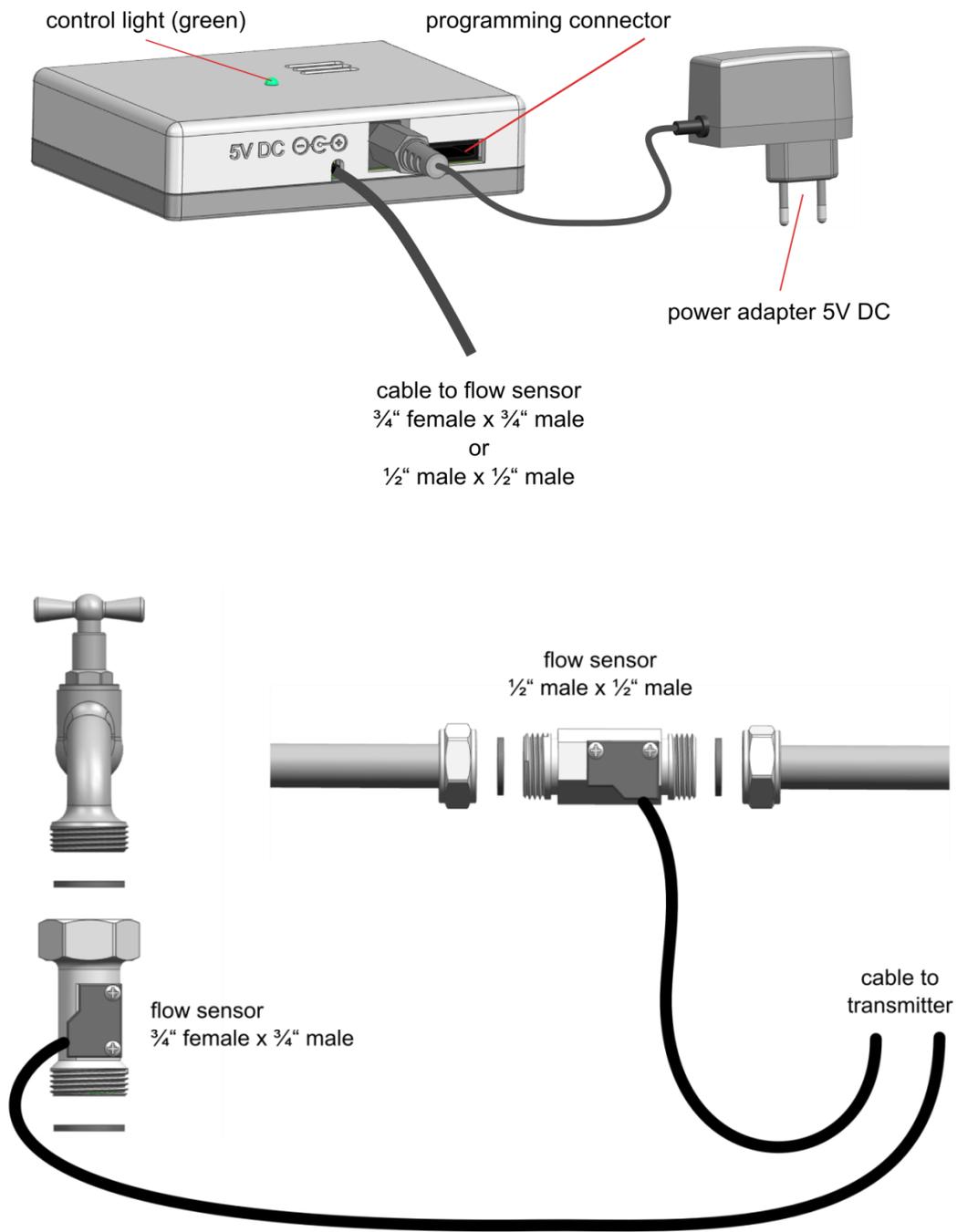
The control unit receives the wireless signals from the sensors and reacts upon these signals. The actuator controlled by the control unit opens /closes the shut-off valve. The control unit continuously checks via the pressure sensor the line pressure and in case of a pressure drop the shut-off valve is closed and the alarm triggers an audio and light signal.

Motion detector



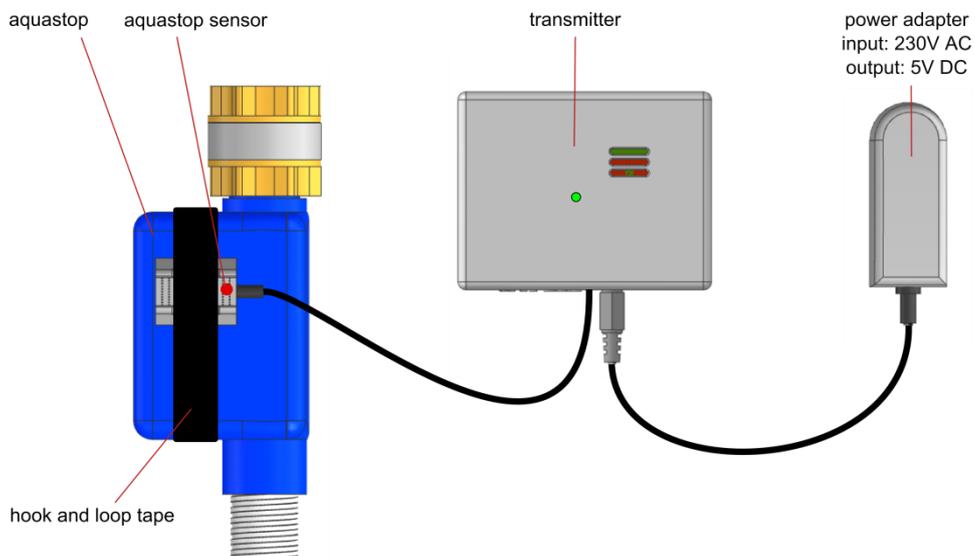
- The motion detector detects the presence of a person in the area controlled and sends a wireless signal to the control unit to open the shut-off valve.
- If the motion detector does not detect a person any longer in the controlled area a wireless closing signal will be sent after the “follow-up” time of 10, 20 or 30 minutes has expired.

Flow sensor with transmitter



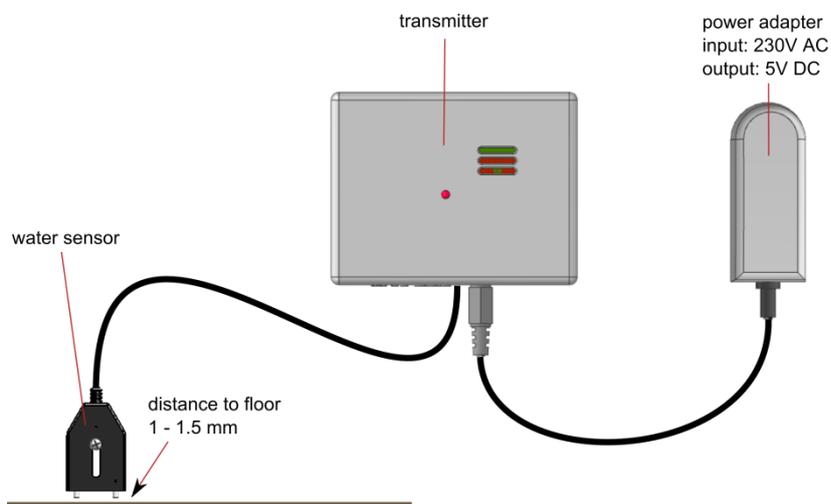
The flow sensor detects opening and closing of the water supply valve for dishwashers, washing machines, hygienic water circulation, waterline connected side by side refrigerator, outdoor faucets etc. and sends a wireless signal for opening / closing of the shut-off valve.

Aquastop sensor with transmitter for washing machine and dishwasher



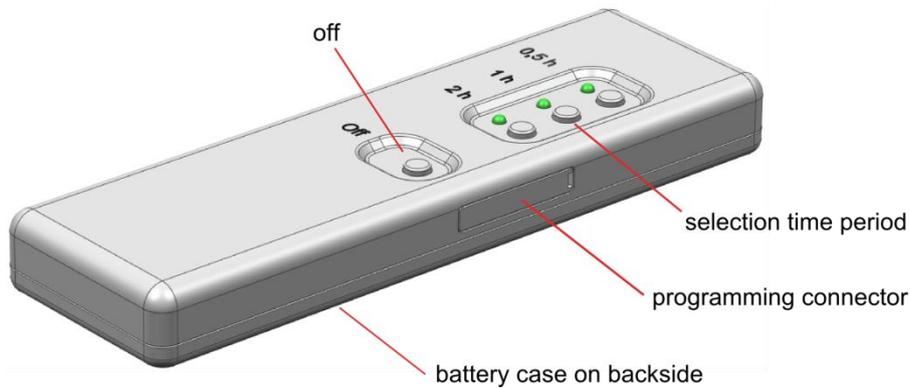
- The sensor mounted on the aquastop valve detects the magnetic field the aquastop solenoid valve is generating when the machine requires water and sends a wireless signal to the control unit to open the shut-off valve. After the solenoid valve has been closed a wireless signal is sent to the control unit to close the shut-off valve.

Water sensor with transmitter



- The water sensor transmitter sends a wireless signal to the control unit to close the shut-off valve when water is detected. The alarm is triggered, the shut-off valve closes and an audio as well as light signal is started.

Remote control



- For outdoor taps and hydrants as well as for filling large bath tubs, whirlpools, swimming pools or other large containers with water the use of the remote control is required.
- With the remote control you can choose the time for which you require water by pressing 1 of the 3 buttons.
- You can choose between 0.5 h, 1 h and 2h time period.
- After the selected time period has expired the remote control sends a wireless signal to close the shut-off valve.

Wireless transmission

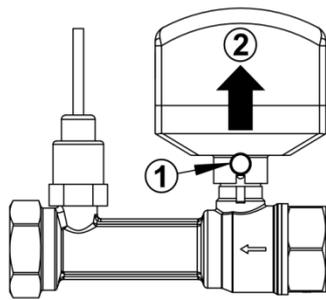
Our system is using the 868 MHz ISM band. The signals are transmitted on a straight line in all directions. The installed transmission power is sufficient for normal homes. Metal sheets or very thick armored concrete can disturb the wireless transmission and can reduce the range of the wireless transmission.

Electricity consumption

Control unit	24 V AC	< 1 W	
Actuator	24 V AC	7 W	only when operating
Flow sensor	5 V DC	< 1 W	
Water sensor	5 V DC	< 1 W	
Aquastop sensor	5 V DC	< 1 W	
Motion detector	3 Batteries 1.5V AAA	< 0.00005 W	
Remote control	3 Batteries 1.5V AAA	< 0.00005 W	

Manual override

Please follow the instructions printed on the cover of the actuator.



Manual operation in case of power blackout

- ① Loosen knurled screw.
- ② Lift actuator approx. 7 mm from ball valve so that the 2 protruding knobs on the neck of the ball valve are clear for 90° right turn.
- ③ 90° right turn.

Power blackout

In case water is required during a power blackout the shut-off valve can be operated manually (see manual override instruction printed on cover of actuator). Please consider that the system in this manual override open condition does not protect against leakage. Please put the system back into normal working condition after the power is back.