

the **dynamics** of water



wsd[®]
water safety detection

water safety

plain



Law requirements on drinking water are getting stricter, mainly caused by several outbreaks of Legionnaire's Disease throughout the world. The risk of growth of Legionella, the bacterium that causes Legionnaire's Disease, increases when drinking water is stagnant for longer periods. In a booster system a leaking membrane tank or an incorrectly adjusted booster system can be a potential threat to the quality of drinking water. Especially in rooms with an average ambient temperature above 25 °C the risk is elevated.



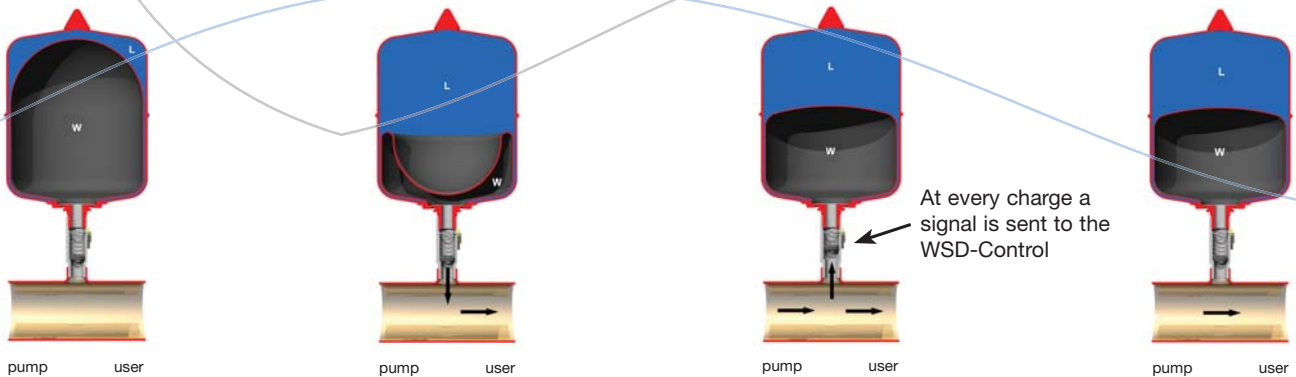
Easy Control for Every Situation

To control water quality in booster systems, DP-Pumps has developed the WSD, which detects the refreshment of water by registering the filling and consequently, the draining, of the membrane tank and the average ambient temperature in the pump room. Furthermore the WSD detects periods of water-standstill of 24, 96 or 168 hours. If during this period the refreshment of water in the membrane tank is not sufficient* and/or the average ambient temperature in twenty-four hours is above 25 °C, the WSD switches two potential free contacts. With these contacts, an alarm may be sent to the Building Management System or an acoustic or optical alarm can be generated. Optionally, the booster system may be switched off through its control panel. By means of a reset button on the WSD-Control module, the signal can be cancelled.

* The Dutch regulations state that the membranetank must be filled and emptied 30 times per 24 hours. Check local regulations.

WSD detection (wsd[®])

and effective



Easy Installation

The WSD consists of three components:

- The control module WSD-Control, supplied in a waterproof housing (IP 55)
- A bronze WSD-Sensor
- A PT1000 temperature sensor (optional).

The control module can be mounted on a wall or on the control panel of the booster system. Simply plug it in a regular 220V socket and it is operational.

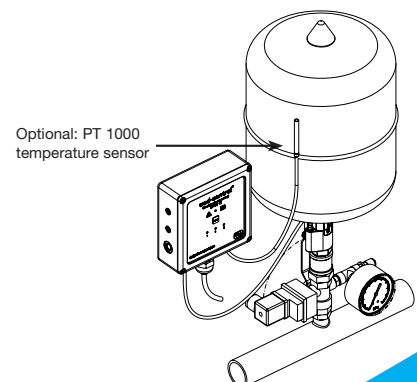
The WSD-Sensor must be installed between the discharge header and membrane tank and can be installed on almost any booster system. The optional temperature sensor is fitted on the membrane tank.

Advantages of the WSD

- The WSD signals the circumstances under which the Legionella bacteria could thrive and sustain themselves
- When an alarm is generated, this might also be an indication of a technical failure or an incorrectly adjusted installation

WSD-Control® *	
Power supply	1 x 230 V
Alarm out	2 potential free changeover contacts
Material housing	ABS V0
Housing	IP55
Dimensions	130 x 130 x 51 mm
WSD-Sensor®	
Connection	G ¾"
Material housing	Bronze
Magnet	ABS covered
Spring	Stainless steel
Reed contact cord length	1.5 m
WSD Temperature sensor	
Type	PT 1000
Cord length	2.5 m

*If not integrated in DP control or Megacontrol



In Holland, regulations on drinking water are quite strict after a large epidemic of Legionnaire's disease (also known as Veterans' disease) in 1999. 32 People died. These regulations made us, being market leader in the field of booster systems, develop the WSD.



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