Difference between Water Spot Detection and WLD Zone Detection

There are two principles for detecting water in remote locations - Spot Detection or Water Leak Detection based on Sensing cable. They cost different amounts of money (hardware & installation), but also give different results. Let's take a closer look.

Traditional water spot (flood) detectors are inexpensive, easy to install, and popular in many industries. They typically use 2 or 4 pins, and water is detected when those pins are connected. The problem is that there must be a continuous layer of water to detect the presence of water.

The spot water detectors should be installed with care and precision, at lower surface levels. In the real world, there is a high probability of a very late alarm. You will be alerted when everything is already flooded, just because a detector was placed where the water is coming from at the end of a flood disaster. We call this type of late warning a "**swimming invitation**", not an early warning.

Businesses and industries where the detection and control of water and other liquids is critical know from experience the importance of early warning with the first few drops of water. The first few minutes are critical to preventing ultimate damage.
Final damage is not the cleaning service and drying out of the building, but the company being out of business, damaged (unreliable) servers, etc.

	Spot water (flood)	**Sensing cable water**

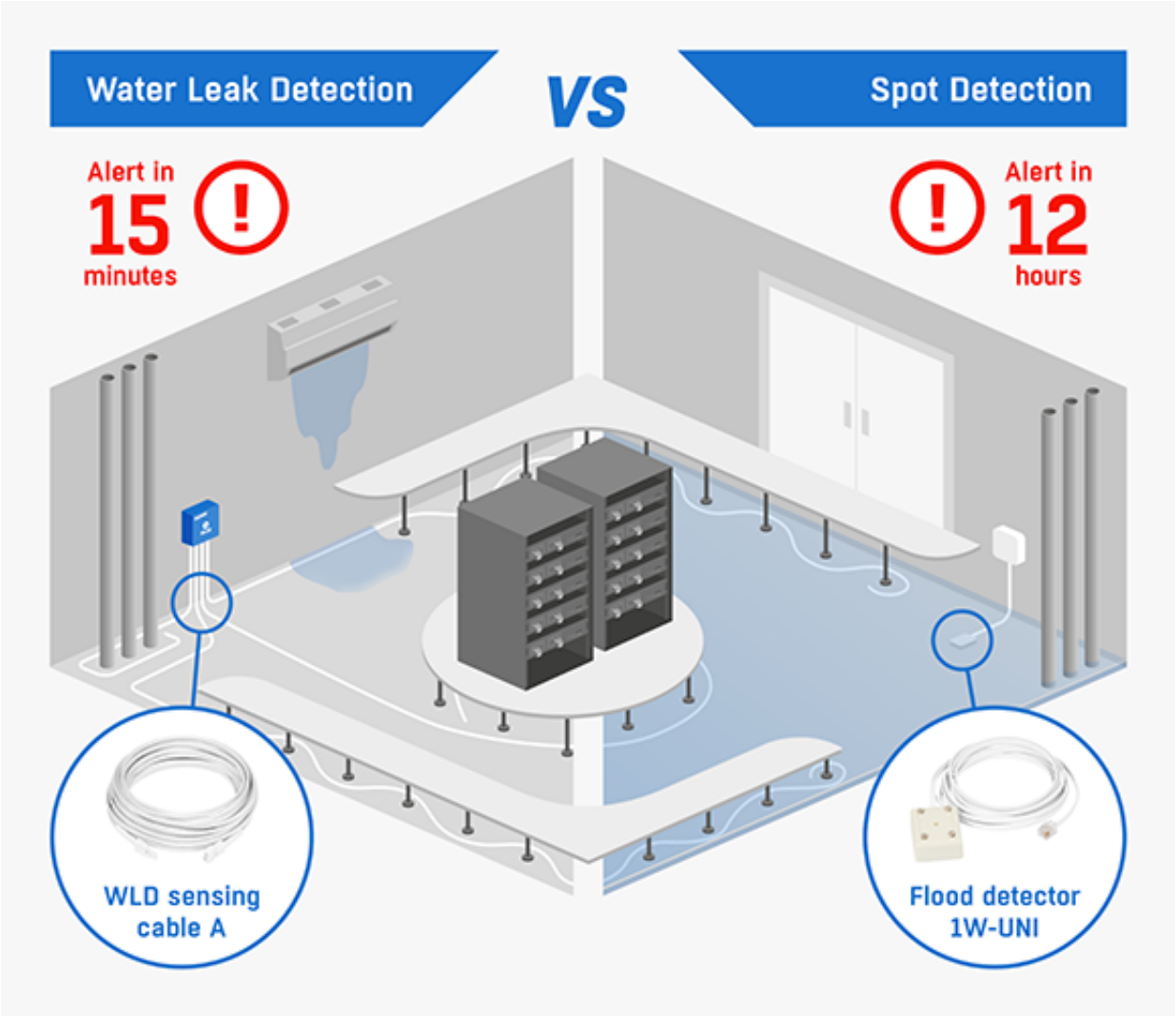
	detection	leak detection
System cost	Up to ?100	From ?400
Installation time	5 min	1 hour / zone
What is detected	Water layer (2mm min) on 2 contacts	First drops of water along the entire length of the sensing cable
Late alert (swimming invitation)	Highly likely	Unlikely
False alarm probability	Unlikely	Unlikely
Early warning	Unlikely	Highly likely

Water spot (flood) detection

Flood detectors only detect water in one location and must be completely flooded. This means that you will not be alerted immediately when a water pipe breaks, but only when the area is significantly flooded. Therefore, it is not the ideal solution for data centers etc. where you need to be alerted before the water reaches your IT infrastructure.
Only the use of the water detection cable ensures this.

Using the Water spot detection:

- Easy to use detector
- High risk of improper installation
- Swimming invitation alerts only



Sensing cable water leak detection

Using Water Leak Detection with a sensing cable you can detect the first drops anywhere in the monitored room/area. This **early warning** can prevent significant damage to IT or other infrastructure. Water Leak Detection with sensing cable is recommended in **IT, data centers, engineering and medical environments**, or anywhere where water damage would be very costly.
A sensing cable can be installed under raised floors in data centers, wrapped around pipes, run along walls, etc. Custom solutions are available for any requirement.

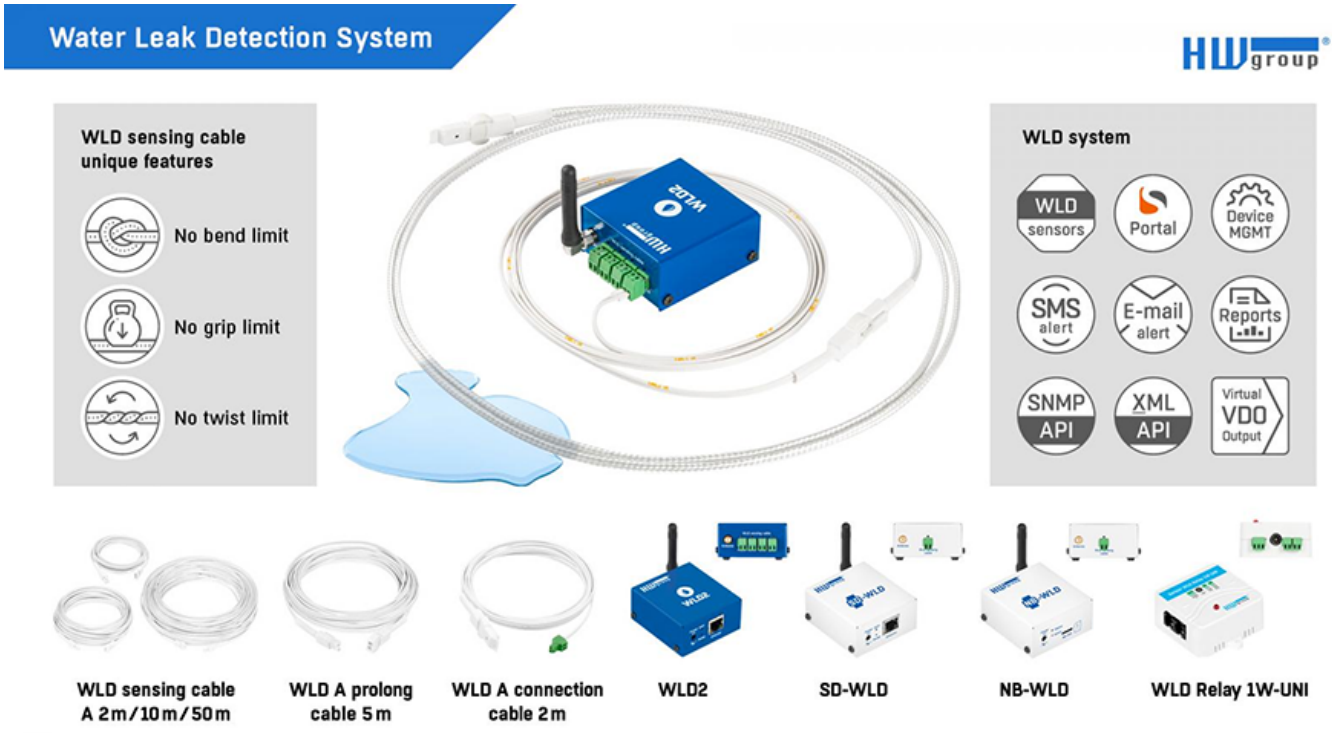
Using the WLD sensing cable:

- Placement of the sensing cable must be considered

- WLD system is reliable (no false alarms)
- WLD system is capable of alarm
- Detects the first drops of water along the entire length of the sensing cable
- Sensing zone can be easily covered by combination of sensing & non-sensing cable

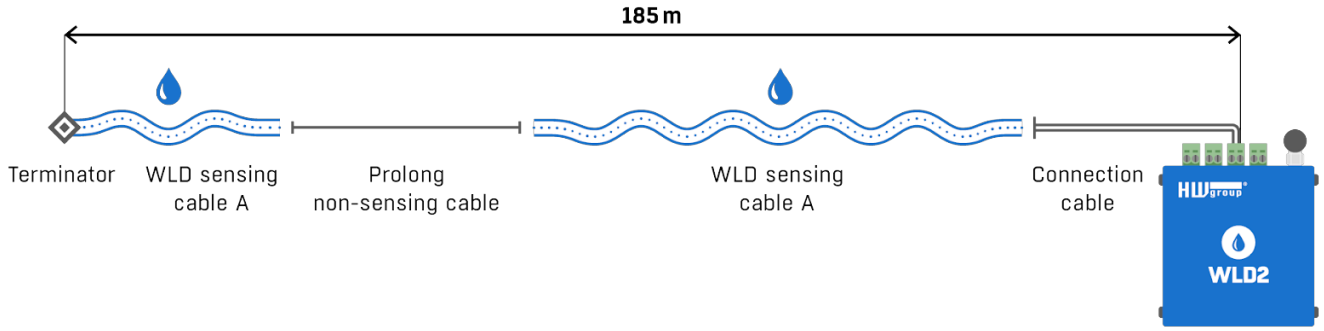
WLD system

The real early warning is exactly why having a water leak detection system in place, although much more expensive, is preferred by many. HW group's remote monitoring ecosystem includes several devices based on the unique sensing cable that detects even a few drops of water.

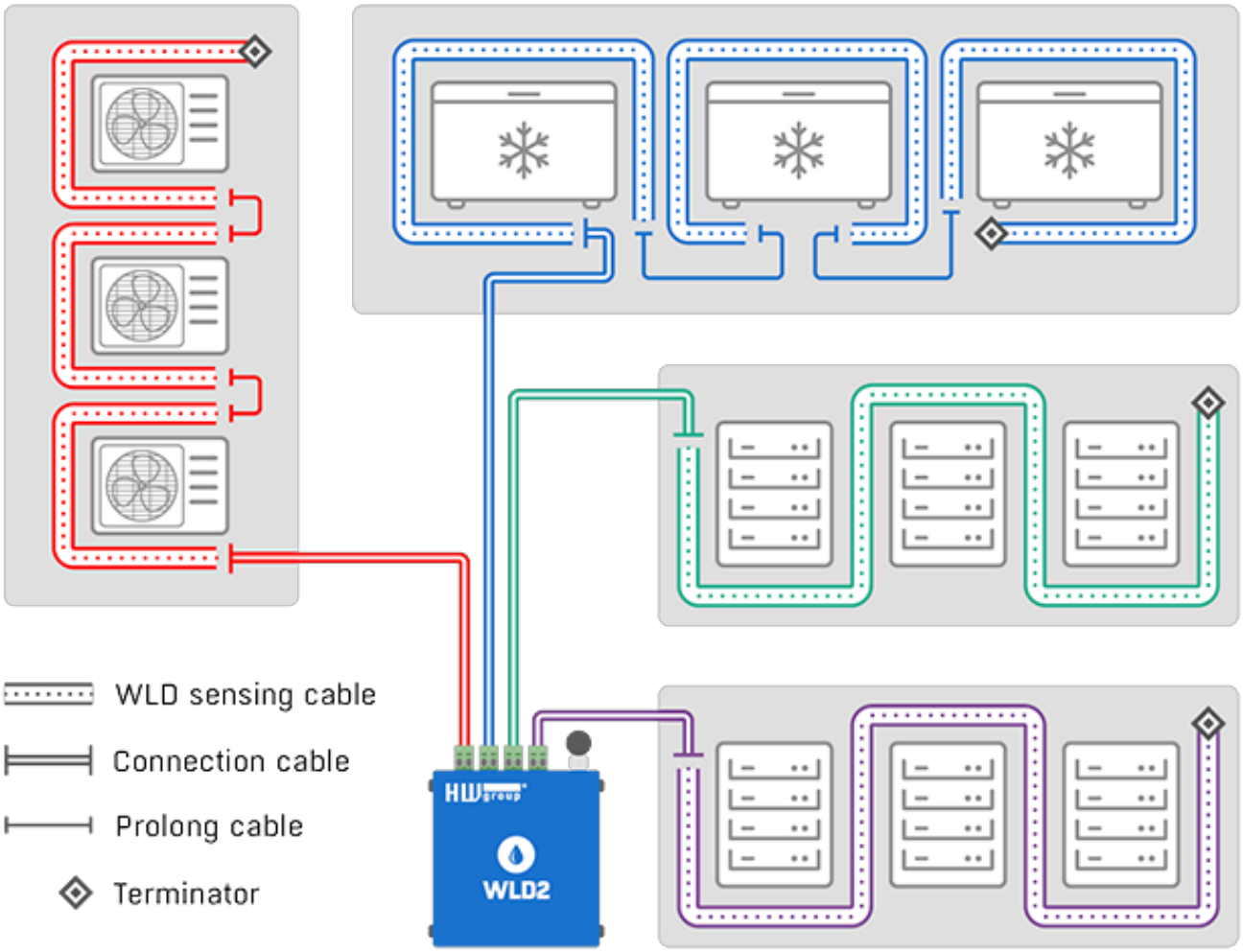


The WLD system works with zones, where each cable, installed even after construction or equipment setup, creates a conductive liquid monitoring zone.

WLD zone(s)



With such a zone, which could be up to 185 meters away from the monitoring device, one could create an effective detection situation by placing the sensing cable right next to the water sources in any type of site, be it a data center, industrial or manufacturing facility, or a warehouse.



With the much faster response to any water presence, this could mean preventing a disaster rather than arriving on site when the damage is already skyrocketing. With the WLD system, what you're buying is time and robust, easy installation within any

existing infrastructure.