

# Wedeco OptiDetect

UV QUARTZ SLEEVE BREAKAGE DETECTION FOR COMPLIANT  
AND SAFE WATER TREATMENT OPERATIONS

The Wedeco OptiDetect is a quartz sleeve breakage detection system that notifies you within one second of a glass rupture inside a UV reactor. Whether in operation, or in stand-by mode, this alerts you to take immediate action to prevent further damage to your UV system and other equipment. It equally avoids the imminent danger of shards or materials flowing through the pipework.

With Wedeco OptiDetect, you get round-the-clock quartz sleeve breakage safety and smooth operation.



## Assure compliance to disinfection regulations

OptiDetect conforms to the WIMES\* and DWI\*\* specifications which require that lamp failure is distinguished from lamp breakage, to ensure damaged lamps are detected in the UV system.



## Improve process resiliency

Triggered by the water entering the quartz sleeve, OptiDetect sends an alert message within one second of a breakage. You are guaranteed to receive a notification on the UV system's HMI or SCADA system so you can take immediate action.

OptiDetect is a separate control loop independent from the UV system's electrical cabinet. This allows for the reactor to be completely shut down or for maintenance work to be done on the electrical cabinets, and still keep the system protected.



## Install safely and easily

Whether it is a new installation or an existing Wedeco UV system, and regardless of lamp orientation, OptiDetect can be easily set up without affecting other parts of the system. The disinfection certification or approval of the reactor remains unchanged.

And even at zero-flow conditions, OptiDetect gives an instant alert in the event of a quartz sleeve breakage.



## Guarantee service satisfaction

With Xylem's worldwide presence and its vast experience in UV system installations all over the world, you can be assured of quick service turn-around times and spare part deliveries.

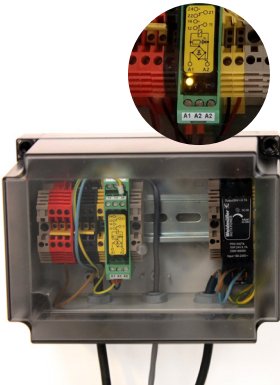


With our know-how in applications and processes, we can provide support all the way from solution design to project execution and post-installation services. Get in touch with your Xylem local office or any of our global partners and experience Xylem's unparalleled service.

\* Water Industry Mechanical and Electrical Specification (July 2014)

\*\* Drinking Water Inspectorate (August 2016)

# Wedeco OptiDetect QUARTZ SLEEVE BREAKAGE DETECTION SYSTEM

## OptiDetect system parts

<b>Control box</b> Has an integrated power supply and safety relay. The controller indicates status through the relay LED.	Electrical standards	BS EN 61439-1 (2011) BS EN 61439-2 (2011) IP67 rated	
	Communication	Two volt-free digital low non-latching outputs that switches to high in alarm state, when system is triggered, and changes from open circuit to short circuit.	
	Common outputs	Two independent digital alarm outputs rated at 12 to 250 volt AC or DC	
	Dimensions and weight	180 x 130 x 150 mm 0.7 kg	
<b>Manifold</b> Connects each quartz module to the electromechanical pressure switch.  Its pneumatic input with a one-way control valve prevents other quartz sleeves from pressurizing when pressure occurs to one module.	Materials of construction	Aluminium body Stainless steel fittings	
	Integrated alarm actuator	Electromechanical pressure switch	
	Alarm pressure	0.7 bar	
	Pressure rating	20 bar	
	Dimensions	260 x 40 x 40 mm	
<b>Headpiece of UV lamp module</b> Modified to allow pneumatic pipeline to be connected for pressure monitoring.	Materials of construction	Stainless steel	
	Dimensions	36 mm and 48 mm	

## OptiDetect schematics

