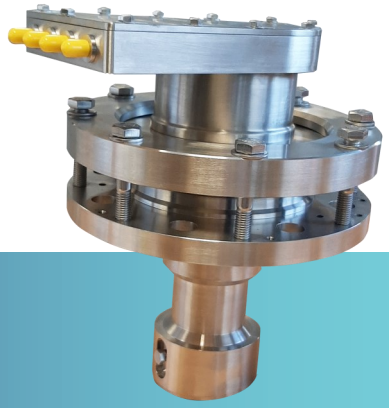
Optical Level Sensor OLS

The most accurate, reliable and robust LiDAR optical level sensor



The OLS level sensor accurately determines the water level of a swimming pool, sump or cistern in harsh environments. Non-intrusive, it is based on the principle of laser measurement by time-of-flight. It embodies the most accurate, reliable and robust LiDAR level sensors for New Constructions & Installed Bases.

AVANTAGES

> Compact and non-intrusive

> Accurate, reliable and robust

> Low maintenance

> Low operational costs

> Eye safe

MEASUREMENT PRINCIPLE ARCYS

ARCYS has developed the OLS level sensor to measure, in a non-intrusive way, **the water level of basins in harsh environments** due to the proven measurement method of « time of flight » by laser emission (LiDAR).

L'OLS mesure le temps entre l'émission laser et le retour du signal à travers le capteur optique après réflexion, afin de déterminer le niveau d'eau d'un bassin, d'une piscine ou d'un puisard, dans des conditions environnementales sévères, accidentelles (LOCA), voire post-accidentelles.

IN THE FIELD

The OLS level sensor consists of a high performance optical sensor and remote high speed measurement equipment.

The optical sensor can be easily installed anywhere above the water level to be measured. It connects remotely to its measurement equipment using **renforcing optical fiber.**

The measuring equipment can be installed in any unrestricted technical room.

This remote configuration makes it possible to acquire a continuous measurement in severe conditions.

ZONE RESERVEE AUX LOGOS DES CERTIFICATIONS DU PRODUIT S'ILS EXISTENT.

EX : LOGO LORAWAN, ATEX, SIL3, SIL4...

TECHNICAL SPECIFICATIONS

Measurement characteristics	
Measurement range	Up to 20 m
Offset margin	Up to 200 m*
Resolution	± 3 cm
Repeatability	± 3 cm of measurement
Margin of error	± 3 cm
Response time	≤ 1 minute cold start
	≤ 20 seconds warm restart
Optical sensor operating conditions	
Pressure	1 to 6 bars relative
Temperature	0 to 90°C (or 150°C during 15 minutes)
Hygrometry	0 to 100 % RH
Radioactivity (LOCA)	1 MGy tested*
Operating conditions of measuring equipment	
Temperature	0 to 90°C (or 150°C during 15 minutes)
Hygrometry	0 to 100 % RH
Input/Ouput	
Measurement	Analog output 4-20mA
System Status	Analog output 4-20mA
Supply	
110/230 VAC ± 15%, 47 to 63 Hz, 50 VA	
Installation and maintenance	
Optical sensor	RCC-E standard
Measuring equipment	Standard 19'' rack or specific
Maintenance	Sensor : every 15 years
	Measurement rack : every 5 years

*Higher values possible on request

Certificates and approvals	
Approvals	CE, RCCE-K1
Laser (eye safety)	ISO 60825—Class 1

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