

CERTIFICATE: ATEX / ISO



**aquasant**<sup>®</sup>

Control device AS2.x for  
electro optical overfilling,  
"Filling and leakage"





# CERTIFICATE

Certificate no. 6972

**aquasant** 

**Aquasant Messtechnik AG**  
Hauptstrasse 22  
CH-4416 Bubendorf

QS ZÜRICH AG certifies that the management system of the above mentioned company and location(s) has been evaluated and meets the requirements established by the following rules:

**ISO 9001: 2015**

The management system includes:

**Development, manufacturing and sales of measuring-, monitoring- and controlling-equipment for the chemical industry, the biotechnology, the food industry and the petrochemistry**

During the period of validity of this certificate, the management system of the company must always comply with the requirements of the certified standards.

For updated amendments within the scope of certification of the present certificate, please refer to <http://www.quality-service.ch/>



First certification date: 01.03.1996  
Date of issue: 25.05.2021  
Expiration date: 01.07.2024  
Subject to successful surveillance audit

**QS ZÜRICH AG**  
P.O. Box 6335  
CH-8050 Zürich  
[info@quality-service.ch](mailto:info@quality-service.ch)



  
Management



1 **PRODUCTION/PRODUCT QUALITY ASSURANCE NOTIFICATION**

2 **Equipment and protective systems intended for use in potentially explosive atmospheres Directive 2014/34/EU**

Conformity to Type based on Quality Assurance of the Production Process/Product Quality Assurance

3 Notification No. **KIWA 19ATEXQ1234**

4 Equipment, protective system or components as listed:

Controllers and sensors for Impedance measuring technique of parting, threshold, level;	Flameproof Enclosures (d)
Electro-optical fluid overflow protection;	Increased Safety (e)
Electro-optical turbidity measurement;	Non-electrical equipment (h)
Treshold conductivity sensor technique;	Intrinsic Safety (i)
Radar level measurement	Encapsulation (m)
	Optical Radiation (op is)
	Dust Ignition Protection by Enclosure (t)

5 Manufacturer or  
Authorised Representative:

**Aquasant Messtechnik AG**  
Hauptstr. 22  
4416 Bubendorf  
Switzerland

6 Manufacturing locations: As above

7 CSA Group Netherlands B.V., notified body number 2813 in accordance with Article 17 of the Council Directive 2014/34/EU, notifies that the manufacturer has a quality system which complies with the requirements of Annexes IV & VII of Directive 2014/34/EU.

8 This notification is based upon Report No. 191001279-2 issued on 15. September 2021. This notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annexes IV/VII. Results of periodical assessment of the quality system form part of this notification.

9 According to Article 16 [3] of Directive 2014/34/EU the CE marking shall be followed by the identification number 2813 of CSA Group Netherlands B.V., as the Notified Body involved in the production control stage.

Date of Initial Certification: 06. November 2019

Date of Issue: 15. October 2021

Date of Expiry: 24. October 2022

James May

On behalf of CSA Group Netherlands B.V.



Notification No. **KIWA 19ATEXQ1234**

This certificate remains valid subject to the company maintaining its system to the required standards, which will be monitored by CSA. The use of this certificate, marks and logos are subject to the Regulations Applicable to Holders of CSA Group Netherlands BV certificates  
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR, Netherlands



## 1 Mitteilung über die Anerkennung der Qualitätssicherung Produktion

### 2 Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen - Richtlinie 2014/34/EU

Konformität mit dem Baumuster auf der Grundlage einer Qualitätssicherung bezogen auf den Produktionsprozess / der Qualitätssicherung bezogen auf das Produkt

### 3 Notifizierung Nr. **KIWA 19ATEXQ1234**

#### 4 Geräte, Schutzsysteme oder Komponenten gemäß nachfolgender Aufstellung:

Steuergeräte und Sensoren zur Impedanzmesstechnik für Trennschicht, Grenzwert und Füllstand;	Druckfeste Kapselung (d)
elektrooptische Flüssigkeitsüberfüllsicherungen;	Erhöhte Sicherheit (e)
elektrooptische Trübungsmessung;	Nicht-elektrischer Explosionsschutz (h)
Grenzwert Leitsensortechnik;	Eigensicherheit (i)
Radar Füllstandsmessung	Vergusskapselung (m)
	Inhärent sichere opt. Strahlung (op is)
	Schutz durch Gehäuse (t)

#### 5 Hersteller oder Bevollmächtigter:

**Aquasant Messtechnik AG**  
Hauptstr. 22  
4416 Bubendorf  
Schweiz

#### 6 Fertigungsstandorte: Siehe 5

#### 7 Die CSA Group Netherlands B.V., notifizierte Stelle Nr. 2813 gemäß Artikel 17 der Richtlinie 2014/34/EU des europäischen Parlaments und des Rates, erklärt, dass der Hersteller ein Qualitätssicherungssystem unterhält, welches den Anforderungen der Anhänge IV & VII der Richtlinie 2014/34/EU entspricht.

#### 3 Diese Mitteilung basiert auf dem Auditbericht Nr. 191001279-2 vom 15. September 2021. Die Mitteilung kann zurückgezogen werden, wenn der Hersteller die Anforderungen der Anhänge IV/VII nicht mehr erfüllt. Die Ergebnisse der regelmäßigen Begutachtung des Qualitätssicherungssystems sind Bestandteil der Mitteilung.

#### 9 Gemäß Artikel 16 [3] der Richtlinie 2014/34/EU hat der CE Kennzeichnung die Identifizierungsnummer 2813 der CSA Group Netherlands B.V., als für die Fertigungsüberwachung verantwortliche notifizierte Stelle, zu folgen.

Erstzertifizierung: 06. November 2019  
Gültig von: 15. Oktober 2021  
Gültig bis: 24. Oktober 2022

James May  
Im Namen der CSA Group Netherlands B.V.



Achtung – Rechtlich verbindlich ist ausschließlich die englische Sprachfassung. Die vorliegende deutsche Übersetzung dient ausschließlich Informationszwecken.

### Notification No. **KIWA 19ATEXQ1234**

This certificate remains valid subject to the company maintaining its system to the required standards, which will be monitored by CSA. The use of this certificate, marks and logos are subject to the Regulations Applicable to Holders of CSA Group Netherlands BV certificates  
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR, Netherlands

## EU-DECLARATION OF CONFORMITY



Manufacturer: Aquasant Messtechnik AG, Hauptstrasse 22, 4416 Bubendorf, Switzerland  
Brand: aquasant®  
Notified body: N° 2813, CSA Group Testing UK Ltd  
Description: AS-Control units for electro-optical AF liquid sensors for limit values, overflow protection and leakage monitoring, according to ATEX 16 type code.

We hereby declare under our sole responsibility that the products:

Product: Safety liquid switch, Sensor control unit  
Model: **AS2.\* D24**  
EU-Type Examination Certificate Number: SEV 21 ATEX 0523  
Eurofins Electrosuisse Produkt Testing AG n°.: 1258

comply with the following European guidelines under the harmonised standards or normative documents:

ATEX RL 2014/34/EU	EN IEC 60079-0:2018 EN 60079-11:2012
EMC RL 2014/30/EU	EN IEC 61000-6-2:2019 EN IEC 61000-6-4:2019 EN 61000-6-2:2005 EN 61000-6-4:2007+A1:2011
RoHS RL 2011/65/EU	EN IEC 63000:2018
SVTI Special fill safety device SM 312836 Water protection suitability according to KVV	KVV 301.001 KVV 302.004 KVV 321.003

**Bubendorf, 01.06.2021**



Roger Inauen  
Head Manufacturing





(1) **EU-Type Examination Certificate**

- (2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 2014/34/EU**
- (3) Certificate number: **SEV 21 ATEX 0523**
- (4) Product: Safety Liquid Switch  
Type AS2\* D24\*
- (5) Manufacturer: Aquasant Messtechnik AG
- (6) Address: Hauptstrasse 22, 4416 Bubendorf, Switzerland
- (7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) Eurofins, notified body No. 1258, in accordance with article 17 of Directive 2014/34/EU of the European parliament and of the council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
The examination and test results are recorded in confidential report no 20CH-01803.X01
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

**EN IEC 60079-0:2018**  
**EN 60079-11:2012**

Except in respect of those requirements listed at item 18 of the schedule.

- (10) If the sign «X» is placed after the certificate number, it indicates that the product is subjected to special conditions for safe use specified in the schedule to this certificate. The sign “U” is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.
- (11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the product shall include the following:

 **II (1) G [Ex ia Ga] IIC**

**Eurofins Electric & Electronic-Product Testing AG**  
**Notified Body ATEX**

Martin Plüss  
Product Certification

(13)

## Appendix

(14)

**EU-Type Examination Certificate no. SEV 21 ATEX 0523**

(15) **Description of product**

The safety liquid switch AS2\* D24 is a single channel limit switch. This device is designed to use with electro-optical liquid sensors, conductance detectors and namur sensors.

**Application area:**

Almost any liquid can be monitored by using the control unit if the appropriate material for the liquid sensor is selected. The sensor circuit can be used in explosion-hazard areas. The liquid levels of petrol, mineral oils, acids, caustic solutions, solvents and other chemicals, as well as all types of liquids, can be monitored. It can also be used for most liquids in the food industry without any problems. Application possibilities: containers, tanks, oil tankers, drainage shafts, effluent treatment plants, sewage treatment plants, storage basins and pools, weighing tanks, pipelines, filling equipment, water supply plants, water overflows, oil traps, leakage monitoring of collecting tanks, space monitoring, dry-run protection for pumps etc..

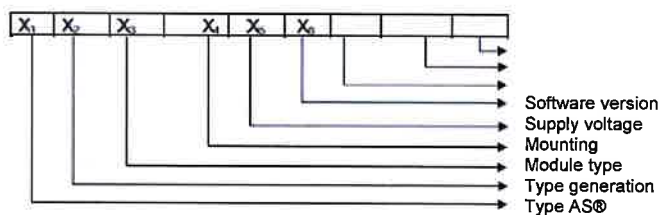
**Functionality:**

The AS2\* is a self-monitoring control unit with an intrinsically safe sensor circuit. The base operation mode depending on connected probe. Depending on the selected mode, the controlling unit starts to operate as needed. The base functionality is the relay that represents a fail-safe sensor state. An integrated buzzer and an additional relay signalize a sensor state change or device error. This notification can be acknowledged to mute the buzzer and reset the additional relay-state.

Classification of installation and use:      stationary  
 Ingress protection:                              IP20  
 Rated ambient temperature range (°C):    -20 °C to +60 °C

**Type designation:**

AS\* - Type designation



- X<sub>1</sub> AS = aquasant® Steuergerät
- X<sub>2</sub> 1 = 1. Generation / 230 V      2 = 2. Generation / 24 V
- X<sub>3</sub> .0 = Standard module      .1 = AD3-Module      .2 = Mess-Module (narrow light version)
- X<sub>4</sub> D = DIN Rail
- X<sub>5</sub> 24 = Rated voltage 24 V      230 = Rated voltage 230 V
  
- X<sub>2</sub> - = standard software      1 = first extension of standard software
  
- Ex Ex = with explosion protection according to II (1)G [Ex ia Ga] IIC  
 NEx NEx = without explosion protection on measuring module

**Rating:**

Nominal values: Um: 28.8 V DC

Type of protection Intrinsic Safety Ex ia IIC.

Sensor circuit A-C:	Maximum output voltage	Uo =	7.2 V
	Maximum output current	Io =	13.3 mA
	Maximum output power	Po =	23.8 mW
	Internal Capacitance	Ci =	0
	Internal Inductance	Li =	0
	Trapezoidal characteristic		
	Maximum Capacitance	Co =	1.3 µF
	Maximum Inductance	Lo =	5 mH
Sensor circuit B-C:	Maximum output voltage	Uo =	7.2 V
	Maximum output current	Io =	41.8 mA
	Maximum output power	Po =	75.3 mW
	Internal Capacitance	Ci =	0
	Internal Inductance	Li =	0
	Trapezoidal characteristic		
	Maximum Capacitance	Co =	1.5 µF
	Maximum Inductance	Lo =	1 mH
Sensor circuit D-C:	Maximum output voltage	Uo =	10.2 V
	Maximum output current	Io =	13.3 mA
	Maximum output power	Po =	33.8 mW
	Internal Capacitance	Ci =	0
	Internal Inductance	Li =	0
	Trapezoidal characteristic		
	Maximum Capacitance	Co =	0.71 µF
	Maximum Inductance	Lo =	2 mH

**(16) Specific conditions of use**

None

**(17) Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
None	

**(18) Drawings and Documents**

See test report "Manufacturer's Documents"





## Overview application aquasant® type AS2.\*

### overflow prevention:

Temperature sensor for all types of storage tanks;  
for organic to aqueous liquids.

### Overflow prevention:

Level indicator for organic to aqueous liquids,  
against the overfilling of truck refueling

### Leaks:

Surveillance tank equipment, collection tank  
double mantle

