

ELECTRO-OPTICAL MEASURING SYSTEMS

ELEKTRO-OPTISCHE MESSSYSTEME

SYSTÈMES DE MESURE ÉLECTRO-OPTIQUES



Manufacturer, Sales, Service	Aquasant Messtechnik AG, Hauptstrasse 22, Postfach 107, CH-4416 Bubendorf
Communication	T +41 61 935 5000 info@aquasant-mt.com, aquasant.com
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Author	Thomas Inauen
Changes	reserved

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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:

07.06.2024

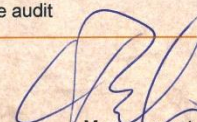
Expiration date:

01.07.2027

Subject to successful surveillance audit

QS ZÜRICH AG
P.O. Box 6335
CH-8050 Zürich
info@quality-service.ch




Management

CSA GROUP | Production/Product Quality Assurance Notifi



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;
Electro-optical fluid overfill protection;
Electro-optical turbidity measurement;
Threshold conductivity sensor technique;
Radar level measurement

Flameproof Enclosures (d)
Increased Safety (e)
Non-electrical equipment (h)
Intrinsic Safety (i)
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. 80135863 issued on 22 July 2022. 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: 18 August 2022

Date of Expiry: 24 October 2025

Michelle Halliwell

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

EU Declaration of Conformity | Control Unit AS2.*-D24

we create solutions



EU DECLARATION OF CONFORMITY en

Manufacturer: Aquasant Messtechnik AG, Hauptstrasse 22, 4416 Bubendorf, Switzerland
Brand: aquasant®
Notified body: N° 2813, CSA Group Netherlands B.V.
Description: The safety liquid switch AS2.* 024 is a single channel limit switch. This device is designed to use with electro-optical liquid sensors, conductance detectors and namur sensors.

We hereby declare under our sole responsibility that the products:

Product	Control units AS2.* D24
Inspection certificate number	SEV 21 ATEX 0523
Notified body	N° 1258 Eurofins E&E

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	
Low Voltage Directive 2014/35/EU	--	
EMV 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	KVU 301.001	Filling safety devices
Water protection suitability according to KVU CCE CCA	KVU 302.004	Special filling fuse
	KVU 321.003	Leakage monitoring

The standards listed may deviate from those in the type examination certificate. In this case Aquasant Messtechnik AG declares that the product complies with the updated standards and that the basic safety and health requirements are met.

Bubendorf, 01.04.2023

Roger Inauen
Head Manufacturing

VxZ-EU-KONFORMITÄT-CONFORMITY_SEV21_AS2x-D24

Eurofins | EU-Type Examination Certificate SEV 21 | AS2.*-D24




EU-Type Examination Certificate

- (1)
- (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



www.eurofins.ch

Fehraltorf, 2021-03-25

Issue: 0

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T8a_V01



(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..

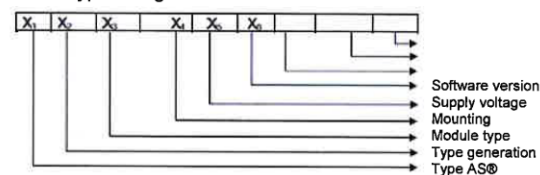
Functionality:

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



X₁ AS = aquasant® Steuergerät
 X₂ 1 = 1. Generation / 230 V 2 = 2. Generation / 24 V
 X₃ .0 = Standard module .1 = AD3-Module .2 = Mess-Module (narrow light version)
 X₄ D = DIN Rail
 X₅ 24 = Rated voltage 24 V 230 = Rated voltage 230 V
 X₂ - = 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: U_m : 28.8 V DC

Type of protection Intrinsic Safety Ex ia IIC.

Sensor circuit A-C:	Maximum output voltage	U_o =	7.2 V
	Maximum output current	I_o =	13.3 mA
	Maximum output power	P_o =	23.8 mW
	Internal Capacitance	C_i =	0
	Internal Inductance	L_i =	0
	Trapezoidal characteristic		
	Maximum Capacitance	C_o =	1.3 μ F
	Maximum Inductance	L_o =	5 mH
Sensor circuit B-C:	Maximum output voltage	U_o =	7.2 V
	Maximum output current	I_o =	41.8 mA
	Maximum output power	P_o =	75.3 mW
	Internal Capacitance	C_i =	0
	Internal Inductance	L_i =	0
	Trapezoidal characteristic		
	Maximum Capacitance	C_o =	1.5 μ F
	Maximum Inductance	L_o =	1 mH
Sensor circuit D-C:	Maximum output voltage	U_o =	10.2 V
	Maximum output current	I_o =	13.3 mA
	Maximum output power	P_o =	33.8 mW
	Internal Capacitance	C_i =	0
	Internal Inductance	L_i =	0
	Trapezoidal characteristic		
	Maximum Capacitance	C_o =	0.71 μ F
	Maximum Inductance	L_o =	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"



Application electro-optical overfill prevention systems overview type AF*

Overfill prevention devices:

Liquid level sensors for all types of liquids, from organic to aqueous media. Can be used according to customer specifications from storage tanks to sterile filling of active ingredients

Filling safety device:

Level limit indicator for organic to aqueous liquids, against overfilling during truck refuelling

Leakage:

Monitoring of tank systems, double-jacket collecting basins

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