we create solutions

aquasant

APPROVALS / CERTIFICATES / CONFORMITIES

aquasant®

Impedance measurement QTI 820K

Bar and tubular probes for interface, level measurement, limit switch and analytics

Aquasant Messtechnik AG | Postfach 107 | Hauptstrasse 22 | 4416 Bubendorf | Switzerland T: +41 61 935 50 00 | info@aquasant-mt.com | www.aquasant.com

QS QUALITY SERVICE

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/

QUALITY SWISS

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

CERTIFIED QS QUALITY SERVICE MANAGEMENT SYSTEM

SWISS ACCREDITATION

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

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; Electro-optical fluid overfill protection; Electro-optical turbidity measurement; Treshold 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.

PRODUCTS
RvA C 652

EU DECLARATION OF CONFORMITY

en

CE

Manufacturer:	Aquasant Messtechnik AG, Hauptstrasse 22, 4416 Bubendorf, Switzerland
Brand:	**aquasant®**
Notified body:	N° 2813, CSA Group Netherlands B.V.
Description:	The microprocessor control unit «QTI 820 K» is used for power supply and evaluation of measuring pulses which are transmitted from the impedance measuring probe as a sum signal.

We hereby declare under our sole responsibility that the products:

Product	Control units **QTI 820 K**
Inspection certificate number	SEV 22 ATEX 0591
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 1127-1:2019 EN 60079-0:2018 EN 60079-11:2012
Low Voltage Directive 2014/35/EU	--
EMV RL 2014/30/EU	EN61000 EN 61326
RoHS RL 2011/65/EU	EN IEC 63000:2018

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, ***18.03.2022***

Roger Inauen
Head Manufacturing

DÉCLARATION DE CONFORMITÉ - UE

fr

CE

Fabricant:	Aquasant Messtechnik AG, Hauptstrasse 22, 4416 Bubendorf, Switzerland
Marque:	**aquasant®**
Organisme notifié:	N° 2813, CSA Group Netherlands B.V.
Description:	L'appareil de commande à microprocesseur «QTI 820 K» sert à l'alimentation en courant et à l'évaluation des impulsions de mesure qui sont transmises par la sonde d'impédance sous forme de signal cumulé.

Nous, exclusivement responsable, déclarons que le produit

Produit	Unità di controllo **QTI 820 K**
Numéro du certificat d'inspection	SEV 22 ATEX 0591
Organisme notifié	N° 1258 | Eurofins E&E

est conforme aux directives européennes suivantes, sous les normes harmonisées ou aux documents normatifs:

ATEX RL 2014/34/EU	EN 1127-1:2019 EN 60079-0:2018 EN 60079-11:2012
Directive sur la basse tension 2014/35/EU	--
EMV RL 2014/30/EU	EN61000 EN 61326
RoHS RL 2011/65/EU	EN IEC 63000:2018

EN 61000 EN

Les normes indiquées peuvent différer de celles figurant dans le certificat d'examen de type. Dans ce cas, Aquasant Messtechnik AG affirme que le produit est conforme aux normes actualisées et que les exigences de sécurité et de santé sont respectées.

Bubendorf, ***18.03.2022***

Roger Inauen
Head Manufacturing

eurofins | E&E

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 22 ATEX 0591**

(4) Product: Microprocessor Control Unit, Type: QTI 820K

(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 22CH-00044.X11

(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
II (1)D [Ex ia Da] IIIC

Eurofins Electric & Electronic Product Testing AG
Notified Body ATEX

Martin Plüss
Product Certification

(13) # Appendix

(14) **EU-Type Examination Certificate no. SEV 22 ATEX 0591**

(15) **General product information**

The microprocessor control unit QTI 820K is used for the power supply and evaluation of measuring impulses which are transmitted from the impedance measuring probe as a sum signal.

Area of application:
The control unit is installed in the control cabinet in the control room (not in the Ex zone). In the chemical industry, for example, the device is used for signal evaluation from continuous interface, level, limit value regulation and product monitoring.

Functionality:
The product-enclosed electrode system of an interface, rod or tube probe, for example, changes the impedance as a function of the dielectric and electrically conductive properties of organic products and aqueous solutions. The measured impedance is converted as a total signal by the on-site measurement electronics "MTI" or "AMEI" directly into a digital standardized signal. The measured values in the normalized signal range are product-specific and characteristic of different products, such as those that occur when measuring the interface of two immiscible liquids. This product-specific measurement corresponds to a number in the range 0 to 3750. The physical impedance measurement of a product is thus represented as a numerical value, which is referred to as the pulse count.

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

Rating:

Input parameters: Um: 36 V

Type of protection Intrinsic Safety Ex ia IIC.

Output parameters:			
	Uo	≤	18.9 V
	Io	≤	49 mA
	Po	≤	231 mW
	Ci	≤	7.4 nF
	Li	≤	0
	Linear characteristic		
	Co	≤	190 nF
	Lo	≤	1 mH

(16) **Report number** 22CH-00044.X11

(17) **Special conditions for safe use**

None

(18) **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	

(19) **Drawings and Documents**

See test report "Manufacturer's Documents"

Application

Interface:

Batch-separation or continuous interfacial layer measurement, detection of two immiscible liquids.

Level:

Level measurement for a wide range of applications (product-compensated for process level measurement); for organic to aqueous liquids, foams or powders

Limit Switch:

Full / empty or level indicator for organic to aqueous liquids, foams or powders with very small bulk densities

Process Analytic:

Product monitoring and identification, concentration and endpoint determination of organic chemical reactions