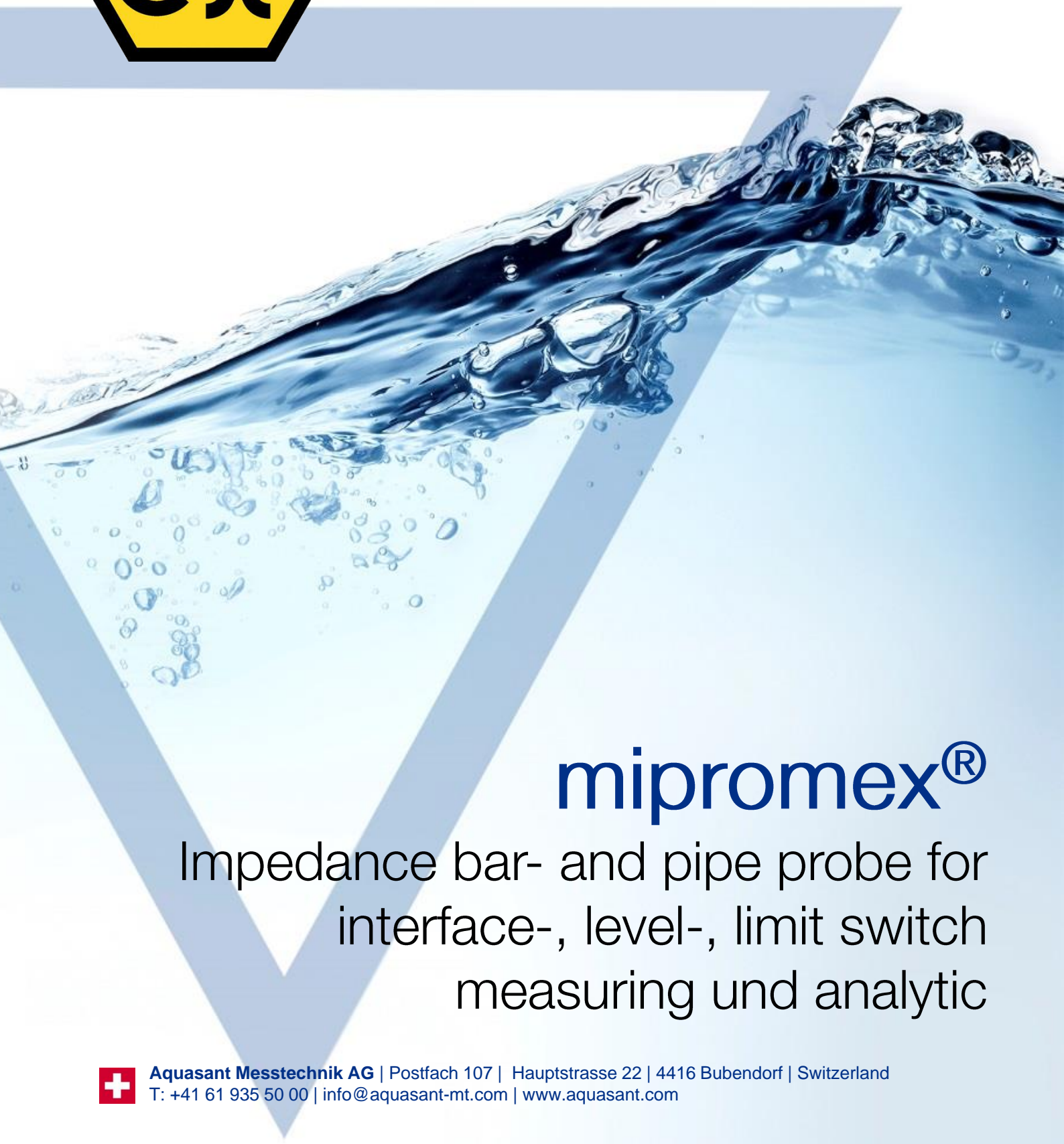


CERTIFICATE: ATEX / TÜV SÜD / ISO



# mipromex<sup>®</sup>

Impedance bar- and pipe probe for  
interface-, level-, limit switch  
measuring und analytic





# 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



# CERTIFICATE

- 1 **Production Quality Assurance Notification**
- 2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
**Directive 2014/34/EU**
- 3 Notification Number: **KIWA 19ATEXQ1234 Issue: 1**
- 4 This Notification is issued for the equipment, protective systems and components which are described in the EU-Type Examination Certificates listed in the schedule of this Notification.
- 5 Manufacturer: **Aquasant Messtechnik AG**  
Address: **Hauptstrasse 22, 4416 Bubendorf  
Switzerland**
- 6 Production site: **Aquasant Messtechnik AG**  
Address: **Hauptstrasse 22, 4416 Bubendorf  
Switzerland**
- 7 Kiwa Nederland B.V., notified body number 0063 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, notifies to the manufacturer that the production site satisfies the requirements of Annex IV and VII of the Directive.
- 8 This Notification is based on Audit Report No. 191001279 and is valid until 24 October 2022. Periodical surveillance of the production process is part of this notification. This Notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex IV and VII.
- 9 According to Article 16 (3) of Directive 2014/34/EU the CE marking shall be accompanied by the identification number 0063 of Kiwa Nederland B.V. as notified body involved in the production control stage.  
According to Article 13 (3) components shall not be provided with the CE marking.

Kiwa Nederland B.V.  
Unit Kiwa ExVision  
Wilmersdorf 50  
P.O. Box 137  
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Kiwa Nederland B.V.

Ronald Karel  
Managing Director

Issue date:

6 November 2019

First issue:

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© Integral publication of this notification in its entirety and without any change is allowed.

## 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:** Mipromex Evaluation and control devices for rod, rope, flat and pipe probes for limit value, level, interface and analysis with impedance measuring electronics, according to ATEX 16 type code.

We hereby declare under our sole responsibility that the products:

**Product:** Microprocessor-control unit mipromex®  
**Model:** **MLS\* / MAT\* / MLT\* / MIL\* / MIQ\* / MPR\***  
**EU-Type Examination Certificate Number:** SEV 09 ATEX 0132 Electrosuisse SEV Nr.: 1258

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

ATEX RL 2014/34/EU	EN 1127-1:2011 EN 60079-0:2018 EN 60079-11:2012
EMV RL 2014/30/EU	EN 61000 EN 61326
RoHS RL 2011/65/EU	EN IEC 63000:2018

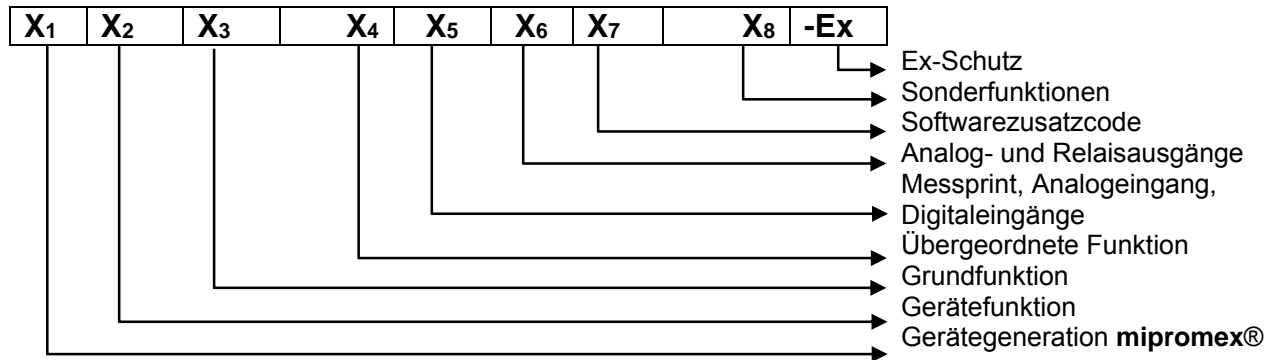
**Bubendorf, 15.03.2021**



Roger Inauen  
Head Manufacturing



# mipromex®-Typenschlüssel:



**X<sub>1</sub>** M = **mipromex®**

**X<sub>2</sub>** A = Analog I = Interface  
P = Product L = Level

**X<sub>3</sub>** C = Concentration M = Monitoring T = Transmitter  
R = Recognition Q = Quality S = Switch  
L = Level U = Universal

**X<sub>4</sub>** 1 = Grenzwert 4 = Analogausgang 7 =  
2 = Leermelder 5 = Universal neu 8 = Trennschicht  
3 = Vollmelder 6 = Füllstand 9 = Produkt (Qualität, Art, Konzentration)

X <sub>5</sub>	Messprint	MW von 2. Gerät	Analogeingang	Digitaleingänge
1	1			3
2	2			3
3	2	1 MW ab Rackbus		3
4	2	2 MW ab Rackbus		3
5	1		1	3
6	2		1	3

X <sub>6</sub>	Relais	OC	Analogausgang	DC-Wandler
0	2			
1		1/2	1	1
2		2	2	1
3	2		1	1
4		2	2	2
5	2		2	2
6	2		2	1
7		2		
8	2 intern		1	1
9	1		1	1

Ein DC-Wandler mit Potentialtrennung, Analogausgang gegenüber Speisespannung; Zwei DC-Wandler, zusätzlich Potentialtrennung, Analogausgänge gegeneinander

**X<sub>7</sub>** 0 = Standard - Software  
1 = 1. Erweiterung einer Standard - Software

**X<sub>8</sub>** - = ohne  
C = Controller Regler (Gerät mit Reglerfunktion) z.B. **MIL 8110 C** Trennschichtniveauregler  
P = Product compensation  
S = Segment

**Ex** Ex = mit Ex-Schutz nach ATEX II(2)G [Ex ia] IIC // II(2)D [Ex iaD]  
Exd = mit Ex D-Schutz nach ATEX II(2)GD [Ex d ia] IIC  
NEx = ohne Ex-Schutz auf Messprint



## EC-Type Examination Certificate

- (1)
- (2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**
- (3) Examination Certificate Number  
**SEV 09 ATEX 0132**
- (4) Equipment: Type M\*\* \*\*\*\* \* Microprocessor control unit "mipromex®"
- (5) Manufacturer: Aquasant-Messtechnik AG
- (6) Address: Hauptstrasse 22, CH-4416 Bubendorf
- (7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) Electrosuisse SEV as notified body No. 1258 in accordance with article 9 of the Council Directive of the European Communities of 23 March 1994 (94/9/EC), certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
The results of the examination are recorded in confidential report No. 08-IK-0396.01
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:  

<b>EN 1127-1:2007</b>	<b>EN 60079-0:2006</b>	<b>EN 60079-11:2007</b>
<b>EN 61241-0:2006</b>	<b>EN 61241-11:2006</b>	
- (10) If the sign «X» is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This examination certificate relates only to design and construction of the specified equipment in accordance to the directive 94/9/EC. Further requirements of this directive apply to the manufacturing process and the placing on the market of the equipment.
- (12) The marking of the equipment shall include the following:

**see Appendix page 2: (19) Marking**

**Electrosuisse SEV**  
Certification Body ATEX

Fehraltorf, 2009-06-25

Martin Plüss  
Product Certification

## Appendix

(13)

(14)

**EC-Type Examination Certificate SEV 09 ATEX 0132**

(15) Description of the equipment

The type M\*\* \*\*\*\* \* Microprocessor control unit "mipromex®" serve to supply power and evaluate measuring impulses. They may also be equipped for monitor-ing limit values.

(16) Test Report

08-IK-0396.01

(17) Special conditions for safe use  
none

(18) Fundamental essential health and safety requirements  
Fulfilled by the standards applied

(19) Marking

The marking of the equipment shall include the following:

For standard version:

 II (2)G [Ex ia] IIC  
II (2)D [Ex iaD] resp.

For the execution for supply of the probes in ignition protections „Ex d ia“

 II (2)GD

**Electrosuisse SEV**  
Certification Body ATEX

Fehraltorf, 2008-06-25

Martin Plüss  
Product Certification



## 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:** Rod, rope, flat and pipe probes for limit value, level, interface and analysis with impedance measuring electronics for Mipromex evaluation and control devices according to ATEX 09 type code.

We hereby declare under our sole responsibility that the products:

**Product:** Rod, rope, flat and tube probes with impedance measuring electronics  
**Model:** **S\*\*, K\*\*, F\*\*, TSS\* / MTI\*/\***  
**EU-Type Examination Certificate Number:** SEV 09 ATEX 0133 X Electrosuisse SEV Nr.: 1258

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

ATEX RL 2014/34/EU	EN 1127-1:2011 EN 60079-0:2018 <b>EN 60079-1:2014</b> EN 60079-11:2012 EN 60079-26:2015
EMV RL 2014/30/EU	EN 61000 EN 61326
RoHS RL 2011/65/EU	EN IEC 63000:2018

**Bubendorf, 15.03.2021**



**Roger Inauen**  
Head Manufacturing







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

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**

(3) Examination Certificate Number

**SEV 09 ATEX 0133 X**

(4) Equipment: Rigid, flexible and tubular probes with impedance measuring electronics type series S\*\*, K\*\*, F\*\* and TSS

(5) Manufacturer: Aquasant-Messtechnik AG

(6) Address: Hauptstrasse 22, CH-4416 Bubendorf

(7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Electrosuisse SEV as notified body No. 1258 in accordance with article 9 of the Council Directive of the European Communities of 23 March 1994 (94/9/EC), certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The results of the examination are recorded in confidential report No. 08-IK-0395.01

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

**EN 1127-1:2007**

**EN 60079-0:2006**

**EN 60079-1:2007**

**EN 60079-11:2007**

**EN 60079-26:2007**

**EN 61241-0:2006**

**EN 61241-1:2004**

**EN 61241-11:2006**

(10) If the sign «X» is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This examination certificate relates only to design and construction of the specified equipment in accordance to the directive 94/9/EC. Further requirements of this directive apply to the manufacturing process and the placing on the market of the equipment.

(12) The marking of the equipment shall include the following:

**see Appendix page 3: (19) Marking**

**Electrosuisse SEV**  
Certification Body ATEX

Fehraltorf, 2009-08-19

Martin Plüss  
Product Certification

(13)

## Appendix

(14)

### EC-Type Examination Certificate SEV 09 ATEX 0133 X

(15)

#### Description of the equipment

Rigid, flexible and tubular probes type series S\*\*, K\*\*, F\*\* and TSS with mounted or separate impedance measuring electronics type MTI \*\*\*/\* used in conjunction with the microprocessor control unit "mipromex®" type M\*\* \*\*\*\* \* (SEV 09 ATEX 0132) for measuring signals for limiting values, levels, separating layers and for analysis in potentially explosive atmospheres.

Variants with integrated temperature sensor and associated measuring transmitter as well as use as a deadman's hand-held probe or hand lever probe is possible.

Ratings according to test report.

(16)

#### Test Report

08-IK-0395.01

(17)

#### Special conditions for safe use

1. According to RL 94/9/EC (ATEX 95) Appendix I, the rigid, flexible and tubular probe type series S\*\*, K\*\*, F\*\* and TSS with mounted or separate impedance measuring electronics type MTI \*\*\*/\* according to type code is a device of equipment group II, category 2G which, according to RL 99/92/EC (ATEX 137) can be used in zones 1 and 2 as well as gas groups IIA, IIB and IIC, which are potentially explosive due to combustible substances in the temperature classes T1 to T6.  
For use/installation, the requirements of EN 60079-14 must be observed.
2. According to RL 94/9/EC (ATEX 95) Appendix I, the rigid, flexible and tubular probe type series S\*\*, K\*\*, F\*\* and TSS with mounted or separate impedance measuring electronics type MTI \*\*\*/\* according to type code is a device of equipment group II, category 2D which, according to RL 99/92/EC (ATEX 137) can be used in zones 21 and 22 in the presence of combustible dusts.  
For use/installation, the requirements of EN 61241-14 must be observed.
3. According to RL 94/9/EC (ATEX 95) Appendix I, only the medium contacted part of the rigid, flexible and tubular probe type series S\*\*, K\*\*, F\*\* and TSS according to type code is a device of equipment group II, category 1G or category 1D which, according to RL 99/92/EC (ATEX 137) can be used in zone 0 or 20.
4. The medium contacted parts of the rigid, flexible and tubular probe type series S\*\*, K\*\*, F\*\* and TSS according to type code with coating of an insulating material (surface resistance > 1 GΩ) can be used without restriction only for combustible substances in gas groups IIA or IIB. For substances in gas group IIC, the coating must be either conductive (surface resistance < 1 GΩ) or have a coating thickness of maximum 0.2 mm.
5. The variants for use as a deadman's hand-held probe or hand lever probe may only be used in gas groups IIA and IIB.
6. The permissible ambient temperature range for the connecting or measuring transducer part of the rigid, flexible and tubular probe type series S\*\*, K\*\*, F\*\* and TSS according to type code is -20°C to +60°C.
7. The permissible medium temperature for the measuring part of the rigid, flexible and tubular probe type series S\*\*, K\*\*, F\*\* and TSS according to type code must be defined for the selected type (with or without heatsink, dimensions, etc.), so that the requirements of the above code are fulfilled. This verification or relevant information must be added to the operating instructions of each variant.

8. As the probe circuit is operationally earthed, a common equipotential bond must exist throughout the wiring run of the probe circuit and supply and signal circuit (within and outside potentially explosive area).
9. When using the variant with integrated temperature sensor and associated measuring transmitter, temperature measuring transducer WIKA type 32.1\*. \*\*2 (DMT 98 ATEX E 007 X), the permissible medium temperature or temperature within the area of the measuring part must be minimum 10 K below the ignition temperature or temperature class of the used combustible materials.


(18) Fundamental essential health and safety requirements

Fulfilled by the standards applied

(19) Marking

The marking of the equipment shall include the following:

Rigid, flexible and tubular probe type series S\*\*, K\*\*, F\*\* and TSS with mounted or separate impedance measuring electronics type MTI \*\*\*/\* according to type key:

	II 1/2G	Ex ia IIC T6	and/or
	II 1/2D	Ex iaD 20/21 IP65 T85°C	

or

	II 1/2G	Ex d ia IIC T6	and/or
	II 1/2D	Ex iaD tD A20/21 IP65 T85°C	

Separate impedance measuring electronics type MTI \*\*\*/\*.

	II 2G	Ex ia IIC T6	and/or
	II 2D	Ex iaD 21 IP65 T85°C	

Variants for use as a deadman's hand-held probe or hand lever probe:

	II 2G	Ex ia IIB T6
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**Electrosuisse SEV**  
Certification Body ATEX

Fehraltorf, 2009-08-19

Martin Plüss  
Product Certification



## Overview application mipromex<sup>®</sup> types MIQ/MIL/MLT/MAT/MLS/MPR

### 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

