[1] EU-TYPE EXAMINATION CERTIFICATE

[2]

Equipment or Protective Systems
Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU

[3] Certificate Number: **SP17ATEX3654X**

[4] Product: Air sensors types SAC10-25 Ex, SAC16-25 Ex, SAC16-50 Ex, SAC22-50 Ex, SAC35-50 Ex, SAC46-64 Ex, SAC60-77 Ex, FCS10-25 Ex, FCS16-25 Ex, FCS16-50 Ex, FCS22-50 Ex, FCS35-50 Ex and FCS46-64 Ex

[5] Manufacturer: AQ M-Tech AB

[6] Address: Bolandsgatan 10, SE-753 23 Uppsala, Sweden

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] SP, Notified Body number 0402, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and 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 a confidential report No. 7P01548:A

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 60079-0:2012 + A11:2013 (SS-EN 60079-0 ed. 4 + A11 ed. 1)
- EN 60079-11:2011 (SS-EN 60079-11 ed. 2)
- EN 60079-26:2015 (SS-EN 60079-26 ed. 3)

[10] If the sign ”X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the 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:
Ex II 1/2G Ex ib IIB T4 Ga/Gb

22nd September 2017

SP Technical Research Institute of Sweden
Certification - Notified Body No. 0402

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[13] # Schedule

[14] **to EU-TYPE EXAMINATION CERTIFICATE No. SP17ATEX3654X**

[15] Description of product

The Air sensors detect gas in flowing liquids by ultrasound (2 MHz). The mechanical connections are clamp connections of type TC (tri clamp) or mini-TC. The circuits in the sensors are encapsulated in polyurethane compound.

The inside of the conduit of the sensor fulfil requirements for category 1 (for zone 0) and the remaining parts fulfil requirements for category 2 (for zone 1).

Air sensors of type FCS* have an up to 10 m long permanently attached PVC-cable with four individually screened wires. A blue shrink tube is attached on the cable. All the wires and their screens (totally eight conductors, incl. screens) make one intrinsically safe circuit.

Air sensors type SAC* have an up to 40 m long PVC-cable with a socket which is connected to the plug at the sensor. All four wires in the cable and their common screen make one intrinsically safe circuit.

The Air sensors pass the 500 V ac test between the intrinsically safe circuit and the enclosure made of stainless steel.

Data

Ambient temperature (T_{amb}):	-20 °C to +60 °C
Maximum input voltage (U_i):	13,0 V
Maximum input current (I_i):	0,70 A
Maximum input power (P_i):	1,20 W
Maximum internal capacitance (C_i):	200 nF
Maximum internal inductance (L_i):	50 µH

[16] Report number

7P01548:A

[17] Specific conditions of use

1. The enclosure of the Air Sensor must be connected to earth by mounting in an earthed conductive conduit system to avoid risks with electrostatic charges.

2. Any external sources of heating must be considered at installation to not exceed the maximum ambient temperature +60 °C for the sensors.

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[18] Essential health and safety requirements

None additional to those covered by the standards listed in item 9.

[19] Drawings and documents

Specific documents for Air Sensor type SAC*

Description	Number	Revision	Date	Pages
Komponentförteckning	Airsensor SAC Ex	D	17-02-01	1
SAC sammanställningsritning	SACEX-3550	F	17-08-24	3
Gjutritning SAC-Ex	SACEX-08221	B	17-02-01	1
Kopplingsschema SAC Ex	Schema 1 SAC Ex	C	17-02-02	1
Extern kabel	KBL-014-A	D	17-02-02	1
Luftsensor 60,3 mm	SAC-6077	C	17-01-23	1
Rörhylsa	RSC-09064	B	17-01-23	1

Specific documents for Air Sensor type FCS*

Description	Number	Revision	Date	Pages
Komponentförteckning	Airsensor FCS Ex	Ed. 2	17-03-01	1
ATEX sammanställning FCS	FCSEX-3550-10	1	17-03-22	3
Märkskylt ATEX	FCSEX-2565-25	Ed. 4	17-08-24	2
FCS EX Kopplingsschema	FCSEx-kopplingsschema	D	17-08-08	1
Air Sensor and AU100S – Ex manual		Ver. 1.1	17-09-11	6
Air sensor and AS/S-P – Ex manual		Ver. 1.1	17-09-11	6

Documents common for Air Sensor type FCS* and SAC

Description	Number	Revision	Date	Pages
Luftsensor 10 mm	FCS-1025	D	17-01-23	1
Luftsensor 16 mm	FCS-1625	B	17-01-23	1
Luftsensor 16 mm TC-50	FCS-1650	B	17-01-23	1
Luftsensor 22 mm	FCS-2250	B	17-01-23	1
Luftsensor 35 mm	FCS-3550	B	17-01-23	1
Luftsensor 46 mm	FCS-4664	B	17-01-26	1
Rörhylsa till 10&10	RFCS-1016	B	17-01-23	1
Rörhylsa till 16/50, 22/50&35/50	RFCS-1635	B	17-01-23	1
Rörhylsa till 46	RFCS-4664	B	17-01-26	1
Air Sensor SAC Ex FCS Ex Manual		Ver. 2.2	Feb. 2017	12

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