

Report about type testing

for certification of OMS-interface from
Superaqua 1
according to DVGW G 5484 (2016) and
OMS CT Generation 4 (2016)

Report identification

Erstellungsdatum: 22 September 2021
Berichtsnr. 21-00854-AB01-415
PIN: *applied for*
Referenz Nr. DVGW Cert: 21-0541-GOE

Approvals manager

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Applicant

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This report consists of 9 pages and the enclosures mentioned in Section V.

This test report is only valid in connection with the reports mentioned in Annex 1.2 and may only be reproduced or passed on in full, including all enclosures.

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I. General

The presented test samples are the water meter Superaqua 1 from manufacturer Sontex SA, Sonceboz / Switzerland. The Superaqua 1 is collaborated development between the companies Sontex SA, Sonceboz / Switzerland and E. Wehrle GmbH, Furtwangen / Germany with different responsibilities in the development parts. Sontex SA sells the Superaqua 1 as product name Superaqua 1 and E. Wehrle sells the Superaqua 1 as product name WECOUNT-S (see also annex 3.4: *Statement regarding the similarity of the electronic board*).

The Superaqua 1 integrates a place in communication module sending with data transmission over wireless M-Bus after OMS standard.

The aim of this report is to confirm the OMS standard after the test references mentioned in clause II and checking the compliance to the directive 2014/53/EU (Radio Equipment Directive - RED).

Further information:

Trade name:	Superaqua 1	WECOUNT-S
Model name:	Superaqua 1	
Manufacturer:	Sontex SA Rue de la Gare 27 2605 Sonceboz Switzerland	E. Wehrle GmbH Obertalstraße 8 78120 Furtwangen Germany
Place of production:	the manufacturer	the manufacturer
DVGW Product-Code:	4467	
Application number:	21-0541-GOE	
PIN	<i>applied for</i>	
Test sample number/ date of reception:	[01163#1;15.06.2021]; [01164#1;15.06.2021]	
Testing period:	Juli 2021	

Further applicable reports see enclosure 1.2	
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II. Test references

The tests are carried out on the basis of and taking into account the following test standards – as far as applicable

DVGW G 5484 (2016)	„OMS Konformitätsprüfung für unidirektionale Zähler für Elektrizität, Gas, Wasser und Wärme – OMS Compliance Test“
OMS CT Generation 4 (2016)	„Open Metering System Conformance Test“; Volume 1-4

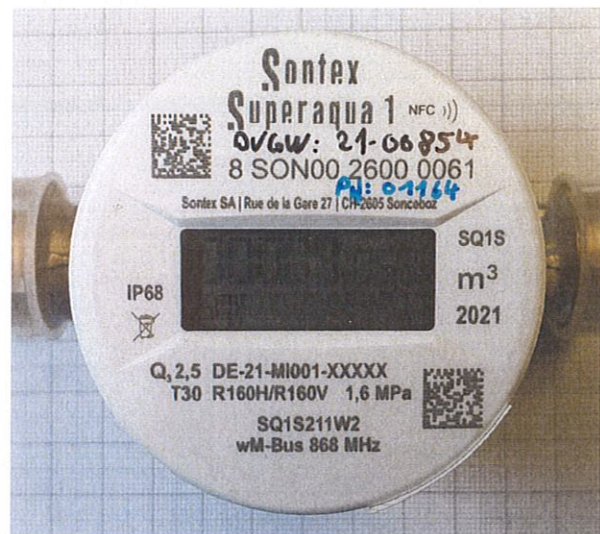
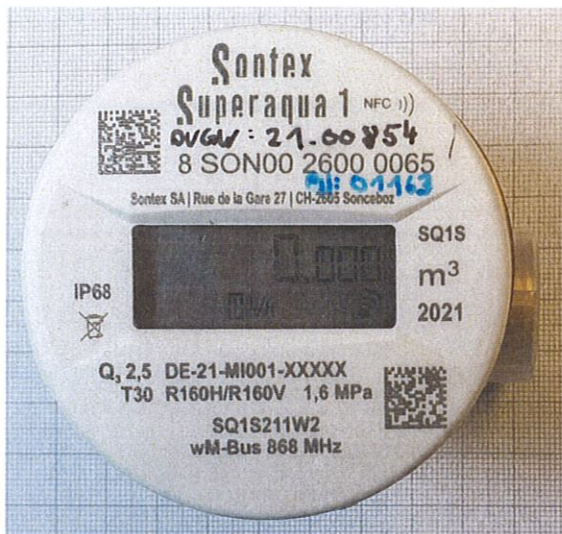
In addition, the OMS Specifications of the 4th Generation Release:2020-10 are taken into account, see [https://oms-group.org/open-metering-system/oms-spezifikation/..](https://oms-group.org/open-metering-system/oms-spezifikation/)

The test base on “OMS-Conformance-Test“, volume 1 – 4, find on <https://oms-group.org/produkt-zertifizierung/conformance-test-tool/>.

III. Description of the device under test

The test samples are water meters named Superaqua 1 from manufacture Sontex SA, Sonceboz / Switzerland. The data transmission taken place over a place in communication module sending at wireless M-Bus after OMS standard.

Below seen photographs of the samples (EUT) of Superaqua 1:



On the left side is the sample of model Superaqua 1 with Serial Number (SN): 2600 0065 (DVGW-Prf.: [01163#1; 16.06.2021]) sending at 868MHz in transmission mode C1. The sample is fixed to encryption mode 5 (Security Profile A). The OMS-device type is changeable between “0x07, Water” and “0x06, Warm water”. Original the sample with Serial Number (SN): 2600 0065 (DVGW-Prf.: [01163#1; 16.06.2021]) was delivered with configuration as OMS-device type “0x07, Water”, The manufacturer has made available the configuration possibilities to change the OMS-device type for the sample. The change of the OMS-device type from “0x07, Water” to “0x06, Warm water” has performed through the test laboratory DVGW-EBI themselves.

On the right side is the sample of model Superaqua 1 with Serial Number (SN): 2600 0061 (DVGW-Prf.: [01164#1; 16.06.2021]) sending at 868 MHz in transmission mode T1. The sample is fixed to encryption mode 7 (Security Profile B). The OMS-device type is also changeable between “0x07, Water” and “0x06, Warm water”. Original the sample was delivered with configuration as OMS-device type “0x07, Water” and change of the OMS-device type from “0x07, Water” to “0x06, Warm water” was performed through the test laboratory DVGW-EBI.

IV. Testing

Preliminary remark: Any evaluations of the results with regard to the fulfilment of the basic safety requirements of the standards, guidelines and regulations listed in Section II within the scope of this report are informative for the client and do not constitute an assessment in the sense of the conformity assessment procedure for obtaining an EU construction sample test certificate, which is reserved for the notified body.

Unless otherwise indicated, the tests and evaluations were carried out on the basis of the standards listed in Section II.

Due to this type testing the physical layer of the sending unit for the data transmission after the OMS standard has been checked through a test report after EN 300 220-1. The requirements of directive 2014/53/EU (Radio Equipment Directive - RED) have been fulfilled. The corresponding documents have been analyzed and the related test report can be found in the annex 3.2 of Superaqua 1.

The OMS protocol is tested through the testing software "OMSConformanceTester Laboratory Version 4.4.7" approved by the OMS Group.

Detailed results can be found for the Superaqua 1 with encryption mode 5 (Security Profile A) (DVGW-Prf.: [01163#1; 16.06.2021]) and OMS-device type "0x07, Water" in the annex 2.1.1 to 2.1.4. and are without any objections. The test results for this sample as OMS-device type "0x06, Warm Water" can be found in the annex 2.2.1 to 2.2.4 and are without any objections.

For the Superaqua 1 with encryption mode 7 (Security Profile B) (DVGW-Prf.: [01164#1; 16.06.2021]) the results for OMS-device type "0x07, Water" can be found in the annex 2.3.1 to 2.3.4 for the OMS-device type "0x06, Warm Water" can be found in the annex 2.4.1 to 2.4.4 both are without any objections.

Other documents (OMS-Manufacturer declarations) provided from the manufacturer are inspected, to be found in the annex 3.1.

The radio module from Superaqua 1 (in OMS mode: “device type: 0x07, water” or “0x06, Warm Water” with encryption mode 5 (Security Profile A) and encryption mode 7 (Security Profile B)) sending at the frequencies at 868MHz with T1 and C1 from manufacturer Sontex SA, Sonceboz / Switzerland sold as trade name Superaqua 1 and manufacturer E. Wehrle GmbH / Germany sold as trade name WECOUNT-S (seen annex 3.4), fulfil the OMS-specification for generation 4 devices as well as DVGW standard DVGW G 5484 (2016).

The results were without objections.

The test results refer only the test samples selected and presented by the manufacturer.

The results taken in enclosure 2 are obtained with a software and hardware tool provided by the OMS Group. Therefor the ILAC Guide G 8:2019 is not applicable because the test results are a software protocol.

V. Enclosures

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*1 gedruckte Seiten

VI. Summary

The present type examination of the OMS interface of from the Superaqua 1 from Sontex SA, Sonceboz / Switzerland with trade name of Superaqua 1 for Sontex SA Sonceboz / Switzerland and WECOUNT-S for E. Wehrle GmbH, Furtwangen / Germany, has shown, that the requirements of the underlying standards acc. to Section II – as far as applicable - are fulfilled.


A certification is recommended.


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A duplication of the test report in parts requires the written approval of the test laboratory.

Karlsruhe, 22 September 2021

DVGW-Forschungsstelle
- *Test Laboratorium Gas* -


(Dr. Jens Hoffmann)
Head of laboratory


(Severin Strauß)
Approvals manager

Applicant:	Sontex SA Rue de la Gare 27 CH-2605 Sonceboz	
Standards:	DVGW G 5484 (2016) / OMS CT Generation 4 th , "OMS-Conformance-Test"; Volume 1 - 4	
Purpose of testing:	Type testing	
Product-ID-No.:	applied for	
Application No.	21-0541-GOE	
Manufacturer:	Sontex SA Rue de la Gare 27 2605 Sonceboz Schweiz	E. Wehrle GmbH Obertalstraße 8 78120 Furtwangen Germany
Production plant:	The manufacturer	The manufacturer
Distributor:	The manufacturer	The manufacturer
Product:	Superaqua 1	WECOUNT-S
Type:	OMS Radio Interface; Device types: "0x06, warm water" and "0x07, water"	
Device type:	Device types: "0x06, warm water" and "0x07, water", Version: 0x46	
OMS Interface:	C1 and T1	
Center frequency:	868,95 MHz	
Application protocol:	M-Bus	
Encryption mode:	5 (OSM security profile: Profile A) and 7 (OSM security profile: Profile B)	
Transmission rate:	120 s	
Installation telegram/ static telegram/ Compact Load Profile:	no/no/no	
Performance class:	HT	
Temperature range:	+5 °C to +55 °C	
Power supply:	Lithium Battery (3V); expected lifetime 12 years (manufacturer data)	
RED Zulassung:	Yes - RED 2014/53/EU; IMST GmbH, Testcenter, ERM Test Lab; ERM Test Report No.: Sontex868/220/2021/277_1; Date: 25.06.2021 appendix 21-00854-AB01-415_a_3_2_sontex_868.pdf	

Die Anforderungen der obengenannten Normen werden erfüllt.

The requirements of the above mentioned standards are fulfilled.

DVGW-Forschungsstelle
- Test Laboratory Gas -

Karlsruhe, 22.09.2021


(Dr. Jens Hoffmann)
Head of laboratory


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Approval history

AZ:	Subject	Date
21-00854-AB01-415	Initial type testing of OMS-interface from model Superaqua 1 from manufacturer Sontex in collaboration with E. Wehrle (sold with trade name WECOUNT-S) Acc. to DVGW G 5484 (2016) and OMS CT Generation 4 (2016)	22.09.2021