

EU-Type Examination Certificate

Measuring Instrument Directive

Certificate number: DK-0200-MI004-006

Issued by FORCE Certification A/S Denmark
EU-notified body number 0200

In accordance with The Danish Safety Technology Authority's statutory order no. 1382 of November 25, 2016 which implements the Directive 2014/32/EU of the European Parliament and Council of February 26, 2014 on measuring instruments (MID).

Issued to: **Integra Metering**
Ringstraße 75
4106 Therwill
Switzerland

Reference No.: 117-29536.07.03

Type of instrument: Ultrasonic Flowmeter

Type designation: AMFLO® SONIC UFA-280

Valid until: May 31, 2018

Number of pages: 7, including appendix

Date of issue: Feb. 22, 2018

Version: 7
This new version of DK-0200-MI004-006 is an administrative extension of the validity period and it replaces all previous versions.

Approved by

Processed by


Michael Møller Nielsen
Certification Manager


Lars Poder
Examiner

The conformity markings may only be affixed to the above type approved equipment. The manufacturer's Declaration of Conformity may only be issued and the notified body identification number may only be affixed on the instrument when the production/product assessment module (D or F) of the Directive is fully complied with and controlled by a written inspection agreement with a notified body. This EU-type examination certificate may not be reproduced except in full, without written permission by FORCE Certification A/S.

FORCE Certification references:
TASK No.: 117-29536.07.03 and ID. No.: 0200-MID-03869

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Appendix to

EU-Type Examination Certificate

Measuring Instrument Directive

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Issued by FORCE Certification A/S, Denmark
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Administrative extension of the validity period.
Version No. 7.

Applied standards and documents:

EN1434:2007

The instruments/measuring systems shall correspond with the following specifications:

Type designation:

AMFLO® SONIC UFA-280

Description:

The Volume meter AMFLO® SONIC UFA-280 is an ultrasonic flow meter working after the transmission time difference principle.

The meters consists of a flow sensor and a transmitter.
The flow sensor has 2 sound tracks.

Technical documentation:

Reference No.: 117-29536.07.03 and 117-29536.06.03.

FORCE Certification A/S file No.: 80.976-022/07, 80.976-117/09, 80.976-170/10, 80.976-191/10 and 80.976-214/11.

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Technical data

Instrument tested according to	: EN1434:2007
Software version	: 1.02, 1.04, 1.05 or 2.01
Verification tolerance	: $\pm(2+0,02 q_p/q)\%$, max. $\pm 5\%$
Temperature	: $\theta_{\min} - \theta_{\max}$ 15°C...200°C
Pressure	: PN10, PN16, PN25 & PN40 (bar)
Power supply	: 115 - 230VAC or 3.6VDC battery
Environment class	: E2, M1
Accuracy class	: 2
Climatic class	: -10 - +55°C, condensing, closed
Durability specification	: 10 years

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AMFLO® SONIC UFA-280 FLOW meter Variants

Diameter	q _p [m ³ /h]	q _s [m ³ /h]
DN50	15	30
DN50	15	45
DN50	30	45
DN65	25	50
DN65	25	72
DN65	50	72
DN80	40	80
DN80	40	120
DN80	80	120
DN100	60	120
DN100	60	180
DN100	120	180
DN125	100	200
DN125	100	280
DN125	200	280
DN150	150	300
DN150	150	420
DN150	300	420
DN200	250	500
DN200	250	700
DN200	500	700
DN250	400	800
DN250	400	1120
DN250	800	1120
DN300	560	1120
DN300	560	1560
DN300	1120	1560
DN350	750	1500
DN350	750	2100
DN350	1500	2100
DN400	950	1900
DN400	950	2660
DN400	1900	2660
DN500	1475	2950
DN500	1475	4130
DN500	2950	4130
DN600	2150	4300
DN600	2150	6020
DN600	4300	6020
DN700	2900	5800
DN700	2900	8120
DN700	5800	8120
DN800	3800	7600
DN800	3800	10640
DN800	7600	10640
DN900	5000	10000
DN900	5000	14000
DN900	10000	14000
DN1000	6000	12000
DN1000	6000	16800
DN1000	12000	16800
DN1200	9000	18000
DN1200	9000	25200
DN1200	18000	25200

 Max. q_p/q_i = 100

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Verification

Errors: Maximum permissible errors according to Directive 2004/22/EC of the European Parliament and Council of March 31, 2004 on measuring instruments (MID), Annex MI-004.

Procedure: Verification requirements according to EN1434:2007

Test Points: $q_i \leq q \leq 1.1 q_i$
 $0.1 q_p \leq q \leq 0.11 q_p$
 $0.9 q_p \leq q \leq 1.0 q_p$

The meter shall be verified before becoming operational (initial verification).
The verification is done with water.

Temperature according to DS/EN 1434-5 Initial verification tests:

Initial verification at temperatures between 15°C and 50°C is approved provided a verification tolerance of max $\pm 1,5\%$ regardless of flow rate is applied.

Verification tolerance, according to DS/EN 1434-5:

When the verification is done the meter is sealed as described under sealing.

Sealing

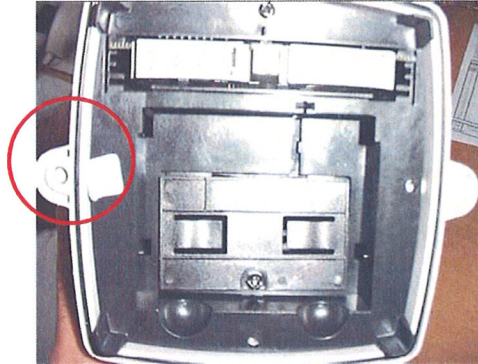
See the following 6 pictures.

Sealing

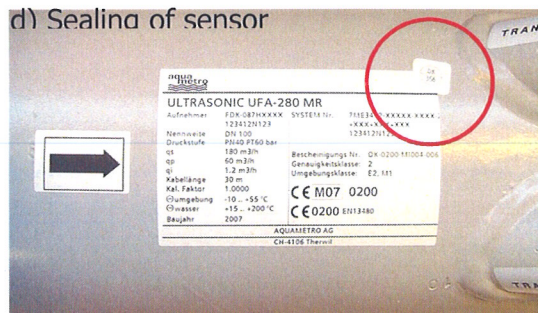
a) Sealing of electronics



b) Sealing of electronics



d) Sealing of sensor



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Installation

The flow sensor can be mounted horizontal or vertical.
Flow direction marked on the sensor.

The signal transmitter can be fitted compact on the sensor or remotely.

AMFLO® SONIC UFA-280 ≥ DN80 1.5 meter straight length of pipe before.

Labeling and inscriptions

- Manufacturer, type, year
- Serial no.
- EC-Type examination certificate number
- Tmax and Pmax
- Application temperature range
- Power supply
- Accuracy class
- Software version
- Direction of flow
- Mechanical and electromagnetic environment classes.

Example

