

CERTIFICATE

(1) Type Examination

(2) **Product intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) Type Examination Certificate Number: **DEKRA 21ATEX0086 X** Issue Number: **0**

(4) Product: **Ultrasonic Flowmeter type UIM Series Flowmeter**

(5) Manufacturer: **Transus Instruments BV**

(6) Address: **Bloesemlaan 4, 3897 LN Zeewolde, The Netherlands**

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

(8) DEKRA Certification B.V., 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. NL/DEK/ExTR16.0010/03.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018

EN 60079-7 : 2015 + A1 : 2018

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 subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.

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



II 3 G

Ex ec IIC T4 Gc

Date of certification: 14 September 2022

DEKRA Certification B.V.

A blue ink signature of R. Schuller.

R. Schuller
Certification Manager

(13) **SCHEDULE**

(14) **to Type Examination Certificate DEKRA 21ATEX0086 X**

Issue No. **0**

(15) **Description**

The UIM Series Flowmeter consists of an Electronic Unit and a flowmeter body. The electronic unit consists of a main electronic board, various optional I/O boards, an LC display and keypad, and is housed in an aluminium or stainless steel enclosure. The electronic unit connects to up to eight ultrasonic transducers and an optional pressure and/or temperature sensor that may be mounted in the flowmeter body.

The enclosure provides IP66 protection per IEC 60079-0.

Ambient temperature range -40 °C to +60 °C.

Process temperature range -40 °C to +80 °C. Or higher than 80 °C, provided that the Electronics Unit is mounted at sufficient distance from the process pipe to negate the influence of heating from the process. The transducers may be connected by cabling of up to 3 meter length.

The external cable rating shall be for continuous use up to 80 °C or higher.

The maximum temperature process temperature for each temperature class shall then be limited per the table below.

Temperature class	Maximum process temperature
T1	445 °C
T2	295 °C
T3	195 °C
T4	130 °C

The process cabling shall be externally clamped in the electronics unit metal extension tube by Ex e certified cable gland(s) when mounted at distance.

The cable glands, other than the process entry, shall be Ex e certified and provide minimum IP66 protection for service temperatures up to 80 °C.

(13) **SCHEDULE**

(14) **to Type Examination Certificate DEKRA 21ATEX0086 X**

Issue No. **0**

Nomenclature

UIM Electronics assembly model number		
UIME-AB-C-DEFGH		
A	x	Number of paths (1 to 4)
B	x	Application type
C	x	Meter size
D - SLOT1	0	Not installed
	1	RS485 Option board (01-0020)
	2	RS485 IO 4..20mA option board (01-0202)
	3	Dual RS485 IO option board (01-0251)
E - SLOT2	0	Not installed
	1	P/T option board (01-0022)
	2	4..20mA option board (01-0203)
	3	Dual RS485 IO option board (01-0251)
F – LCD	0	Not installed
	1	Installed
	2	SS316 enclosure with display/keypad
G	1	M20 cable gland entries
	2	1/2" NPT cable gland entries
H	x	options, not affecting explosion safety

Electrical data

For connection details and electrical data, refer to Annex 2 to NL/DEK/ExTR16.0010/03 (control drawing 06_0013).

Installation instructions

The instruction manual and Annex 2 to NL/DEK/ExTR16.0010/03 (control drawing 06_0013) shall be followed in detail to assure proper and safe operation.

(16) **Report Number**

No. NL/DEK/ExTR16.0010/03.

(13) **SCHEDULE**

(14) **to Type Examination Certificate DEKRA 21ATEX0086 X**

Issue No. **0**

(17) **Specific conditions of use**

The transducer must be installed in an enclosure that protects the front face of the transducer against impact. This additional enclosure may be the process pipe.

Precautions shall be taken to minimize the risk from electrostatic discharge of painted parts.

The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.

Provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 119 V.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR16.0010/03.