



LABORATORIO OFICIAL J. M. MADARIAGA



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(1) EC-TYPE EXAMINATION CERTIFICATE

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

(3) EC-Type Examination Certificate nr. **LOM 15ATEX2005**

(4) Equipment or protection system Gear wheel flow meters
Types DON-...E...

(5) Manufacturer Kobold Messring GmbH

(6) Address Nordring 22-24
D-65719 Hofheim
GERMANY

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


(8) Laboratorio Oficial J.M. Madariaga (LOM), notified body number 0163 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament of 23 March 1994, certifies that this equipment or protective system 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 examination and test results are recorded in confidential report nr. **LOM 14.047 HP**

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
Standards **EN 60079-0:2012** **EN 60079-1:2007**

(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 EC-Type Examination Certificate relates only to the design and construction of this specified equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacture and supply of this equipment or protective system. These are not covered by this certificate.

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

 II 2G Ex d IIC T4, T6 Gb
IM2 Ex d IMb

Getafe, 2015-01-30

Carlos Fernández Ramón
Head of Certification Committee

This Certificate is a translation from the original in Spanish. The LOM liability applies only on the Spanish text

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RCPCEP 07.3/2
Rev. 1

UNIVERSIDAD POLITÉCNICA DE MADRID
ENSAYOS E INVESTIGACIONES DE MATERIALES Y EQUIPOS PARA ATMÓSFERAS EXPLOSIVAS Y MINERÍA
(Real Decreto 334/1992 de 3 de Abril - BOE 1992-04-29)





(A1) SCHEDULE

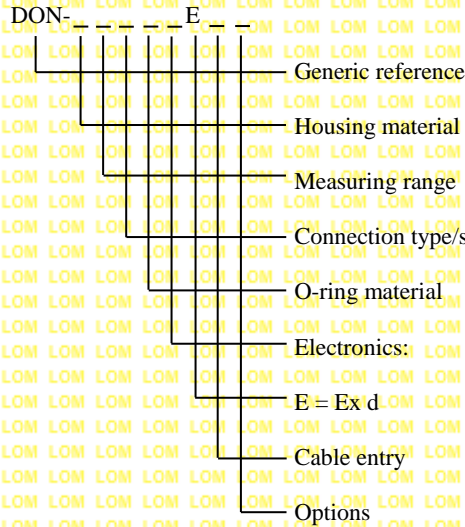
(A2) EC-Type Examination Certificate nr: LOM 15ATEX2005

(A3) Description of equipment or protective system

Series of positive displacement gear wheel flow meters. Consist of a system formed by a pair of oval gears rotating through the action of fluid to be measured; the gear movement is detected as pulses generated by a permanent magnet embedded therein. Magnetic pulse detection, measurement and transformation of signals is performed inside a flameproof enclosure, also containing connection means.

These flowmeters can be made from aluminium or stainless steel. Those for group I only made of stainless steel.

Codification



Electric characteristics $U_{max}: 30\text{ V}$ $I_{max}: 200\text{ mA}$

Process and ambient temperature

Group II		Group I (only stainless steel enclosures)
$-20\text{ °C} \leq T_a \leq +70\text{ °C}$	$-20\text{ °C} \leq T_a \leq +120\text{ °C}$	Maximum process temperature 150 °C
Ex d IIC T6 Gb	Ex d IIC T4 Gb	Ex d IMb

(A4) Test report nr.: LOM 14.047 HP

(A5) Special conditions for safe use

None

(A6) Individual tests

Flameproof enclosures are exempt from individual tests because the prototypes had been submitted to overpressure test to four times the reference pressure.



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(A1) SCHEDULE

(A2) EC-Type Examination Certificate nr: **LOM 15ATEX2005**

(A7) Essential Health and Safety Requirements

Explosion safe requirements are covered by application of the standards indicated in the first page of this certificate.

(A8) Descriptive documents

	<u>Rev.</u>	<u>Date</u>
- Technical description	-	2015-02-09
- Drawings nº:		
223.001	0	2012-09-12
223.002	0	2012-09-12
223.003	0	2012-09-11
223.004	0	2012-09-11
223.005	0	2012-09-11
223.006	0	2012-09-11
223.007	0	2012-09-10
223.008	0	2012-09-10
223.009	0	2012-09-07
223.010	0	2012-09-27
223.011	0	2012-09-18
223.013	0	2012-08-21
223.022	0	2012-09-11
223.023	0	2012-09-11
223.024	0	2012-09-12
223.025	0	2012-09-10
223.026	0	2012-09-12
223.027	0	2012-09-13
223.028	0	2012-09-13
223.029	0	2012-09-13
223.030	0	2012-09-13
223.031	0	2012-09-17
223.032	0	2012-09-18
223.033	0	2012-09-13
023.17Z	0	2012-08-13
023.18Z	1	2013-11-12
023.19Z	1	2013-11-12
023.20Z	1	2013-11-12
023.21Z	2	2014-01-10
023.22Z	2	2014-01-10
023.23Z	2	2014-01-10
023.24Z	2	2014-01-10
023.28Z	0	2013-08-02
023.29Z	1	2013-10-22
023.30Z	1	2013-10-22
023.31Z	1	2013-10-22
023.32Z	2	2014-01-10
023.33Z	3	2014-01-10
023.34Z	3	2014-01-10
023.35Z	3	2014-01-10
023.59Y	0	2012-09-06
023.599	b	2013-09-04
023.601	0	2013-10-10
023.390	0	2014-12-02
023.391	0	2014-12-02
023.392	0	2014-01-22
323.001	1	2014-04-15