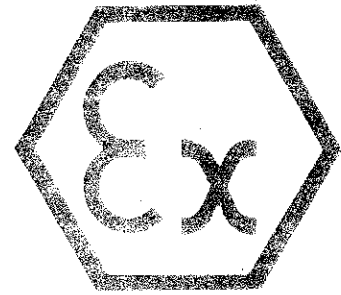




Institut Scientifique de Service Public



(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 number: **ISSeP03ATEX010X**

(4) Equipment or protective system:
Level transmitter types Horizon 703 and 704

(5) Applicant – Manufacturer – ~~Authorized representative in the Community:~~
MAGNETROL INTERNATIONAL N.V.

(6) Address: **Heikensstraat 6
B - 9240 Zele**

(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) ISSeP, notified body n° 492 in accordance with article 9 of the Council Directive 94/9/EC 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 n° 02130.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014 : 1997 + A1 and A2 : 1999
EN 50020 : 1994
EN 50284 : 1999

(10) If the symbol "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.

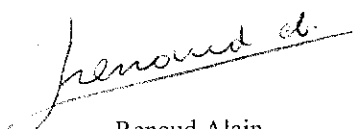
(11) This EC TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of this Directive may apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

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

 II 1 G EEx ia II C T4

Colfontaine, the 12.02.2003

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Zoning A. Schweitzer, rue de la Platinerie
B-7340 COLFONTAINE (Wasmes)
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Renaud Alain
Manager of Colfontaine division

This certificate may only be reproduced in its entirety and without any change, schedule included

(13)

SCHEDULE

(14)

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP03ATEX010X

Description of the equipment or protective system:

Level transmitter model 703 and 704

Possible and admissible variations:

7 0 X - 5 X X X - A 4 X

Basic model number

703 = Transmitter Horizon

704 = Transmitter Horizon

Power

5 = 24 VDC, two wires

Signal output

0 = 4-20 mA Analog output only

1 = 4-20 mA with Hart

Menu Language

Display/ Keypad

0 = None

A = digital display and keypad

Mounting / Classification

A = integral, intrinsically safe

Housing

4 = cast aluminium, single compartment

Conduit connection

Probe type : 7EX-XXXX-XXX

7MX-XXXX-XXX

Electrical parameters

U_i = 28.4 V I_i = 94 mA P_i = 0.67 W

C_i = 16 nF L_i = 400 μH L_i/R_i = 33.33 μH/Ω

Routine tests :

The manufacturer shall make the routine verifications and tests necessary to ensure that the electrical apparatus produced complies with the specification submitted to the testing station together with the prototype or sample (EN 50014 - clause 24).

Eventual prescriptions : Ambient temperatures : -40°C to +70°C

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SCHEDULE

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP03ATEX010X

(16) Report n^r 02130 of 29.01.2003

Composed in total of 29 pages, completed by the following descriptive documents.

"HORIZON Models 703 & 704 - Installation and operating Manual" n^o: 57-603.0 de 01.2003
(49 pages)

The drawings:

Number	Rev.	Date	Pages	Description
099-7208	A	05.07.2002	5	Model 703 & 704 2 wire transmitter
094-6039	B	11.2002	3	Schematic Analog Amplifier and Comparator
09-9092-001	F	19.12.2002	4	
030-9135	C	01.2003		703 / 704 Analog Assembly
094-6040	A	30.06.2002	2	Schematic Model 703 Transmitter Two Wire Microcontroleur
09-9093-001	C	19.12.2002	4	
030-9136	D	01.2003		703 Digital Assembly
094-6041	A	30.06.2002	2	Schematic Model 704 Transmitter Two Wire Power Supply
09-9094-001	C	19.12.2002	6	
030-9137	C	01.2003		704 Digital Assembly
94-6042	B	20.02.2002		Schematic Model 704 Model 704 Display
09-9095-001	C	04.09.2002	3	
030-9138	A	15.05.2002		Model 704 Bczel Assembly

(17) Special conditions for safe use:

Symbol X

- The aluminium enclosure shall be protected against all impact or friction which can ignite the explosive atmosphere.
- The material is not conform to the clause 6.4.12 of EN 50020:1994 (voltage test). The material shall be supplied by a suitable associated apparatus.

(18) Essential Health and Safety Requirements: covered by the Standards listed in (9).

This certificate may only be reproduced in its entirety and without any change, schedule included

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP03ATEX010X/1

(14) Equipment : Level transmitter types Horizon 703 and 704

(15) Subject of the variation :

- The material is modified to answer to clause 6.4.12 of EN 50020 (voltage tests). Therefore, the special condition for safe use about the unconformity to this clause is obsolete.
- The special condition for safe use about the aluminium enclosure is modified.

Electrical parameters : $U_i = 28.4 \text{ V}$ $I_i = 94 \text{ mA}$ $P_i = 0.67 \text{ W}$
 $C_i = 20 \text{ nF}$ $L_i = 400 \text{ } \mu\text{H}$ $L_i/R_i = 33.33 \text{ } \mu\text{H}/\Omega$

Eventual Prescriptions : Unchanged.

(16) Report n° 03177 of 25.11.2003

Composed in total of 9 pages, completed with the following documents :

The drawings :

Number	Rev.	Date	Pages	Description
030-9135	G	05.2003		703 / 704 Analog Assembly
094-6039	D	05.2003	3	Schematic Eclipse Analog Amplifier and Comparator
09-9092-001	G	30.04.2003	4	
030-9136	E	06.2003		703 Digital Assembly
094-6040	C	06.2003	2	Schematic Model 703 Transmitter Two Wire Microcontroller
09-9093-001	D	30.04.2003	4	
030-9137	D	06.2003		704 Digital Assembly
094-6041	C	06.2003	2	Schematic Model 704 Transmitter Two Wire Power Supply
09-9094-001	E	30.04.2003	6	

(17) Special conditions for safe use :

The conditions imposed by the original certification are modified as follow :

Symbol X

Materials marked as Category 1 equipment and used in hazardous areas requiring this category, shall be installed in such a way that, even in the event of rare incidents, the aluminium enclosure cannot be an ignition source due to impact or friction.

(18) Essential Health and Safety Requirements : Unchanged.

Colfontaine, 03.12.2003

Renaud Alain

Renaud Alain,
Manager of Colfontaine division.

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This document may not be used without the original certificate