

EC-TYPE EXAMINATION CERTIFICATE



[1]

[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

[3]

EC-Type Examination Certificate Number: **DEMKO 12 ATEX 1160776X Rev. 1**

[4]

Equipment or Protective System: **Accelerometer, Type 5704 x x xx x xxxx**

[5]

Manufacturer: **Brüel & Kjær Vibro GmbH**

[6]

Address: **Leydheckerstraße 10, 64293 Darmstadt, Germany**

[7]

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

[8]

UL International Demko A/S, notified body number 0539 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 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 no. **12CA66804**

[9]

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

EN 60079-0:2009

EN 60079-11:2007

EN 60079-26:2007

[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, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system.

These are not covered by the certificate.

[12]

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

II 1 G Ex ia IIC T4 – T6 Ga IP64

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product(s) described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Applicant. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured products. UL has not established Follow-Up Service or other surveillance of the product. The Applicant/Manufacturer are solely and fully responsible for conformity of all products to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2012-08-07

Re-issued: 2013-06-17

Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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[13]

Schedule

[14]

EC-TYPE EXAMINATION CERTIFICATE No.

DEMKO 12 ATEX 1160776X Rev. 1

Report: 12CA66804

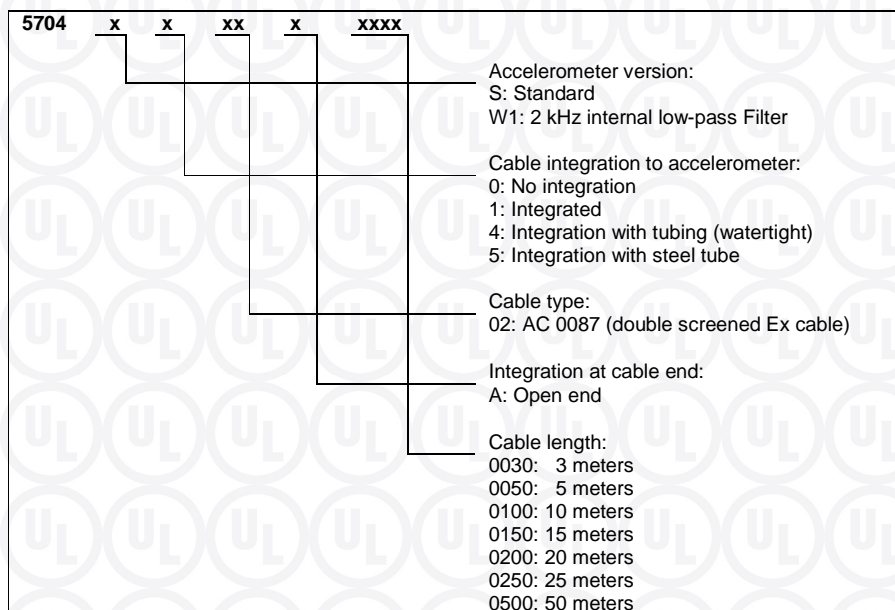
[15]

Description of Equipment or protective system

Accelerometer type 5704 x x xx x xxxx is an industrial accelerometer designed for vibration measuring/monitoring in potentially explosive industrial environments.

The accelerometer utilises piezo electrical crystal and includes diode barriers to prevent sparks caused by any exceptionally high output voltages from the crystal.

Nomenclature:



Temperature range

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range

-40 °C to +75 °C

-40 °C to +125 °C

Temperature class

T6

T4

Electrical data

Intrinsically safe specifications:

U_m : 10 V

U_i : 7.4 V

I_i : 25 mA

P_i : 185 mW

L_i : 30 µH

C_i : 15 nF +0.22 nF/m connection cable

Mounting instructions

Refer to "Instructions".



[13]

Schedule

[14]

EC-TYPE EXAMINATION CERTIFICATE No.

DEMKO 12 ATEX 1160776X Rev. 1

Report: 12CA66804

[16]

Report No.

Project Report No.: 12CA66804 (Hazardous Location Testing)

Documents:

Description:	Drawing No.:	Rev. Level:	Date:
Performance Specification Accelerometer MODEL 5704W1	PSBK5704W1	F	2012-07-02
Performance Specification Accelerometer MODEL 5704	PSBK5704	H	2012-06-29
Accelerometer Sensor 5704-W1	C105017.002	01	2013-05-28
Accelerometer Sensor 5704-S	C105017.001	01	2013-05-06
Diode / Resistor Subassembly	40026	B	2002-06-12
Insulator upper cage	40024	C	2003-04-01
Diode Assembly	34562	B1	2006-11-30
Cable Assembly	34535	E	2003-05-26
Cable Assembly	40090	E1	2010-08-19
Insulation lower cage	40025	C	2003-04-01
Contact socket modified	40023	A	2002-01-14
Transducer Subassembly	34245	A	2001-03-26
Additional Cable Protection 5704	C104586.001	A	2012-02-16
ATEX Manual 5704_def	C104722.001	2	2013-06-14

[17]

Special conditions for safe use:

- The accelerometer must be protected by a certified barrier with a maximum short-circuit current of 25 mA.
- For use in zone 0 the device needs to be prevented from electrostatic charge on the cable jacket. The cable needs to be protected by an external earthed metal pipe/conduit.
- The Ambient Temperature is not given on the device. Please see "Temperature range" of the certificate.
- The Enclosure of the accelerometer is connected to the screen of the cable. A proper grounding installation e.g. according to EN 60079-14 is to be observed.

[18]

Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Annex III of ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

Additional information

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

