

**[1] EC-TYPE EXAMINATION CERTIFICATE**

**[2] Equipment or Protected System Intended for use  
in Potentially explosive atmospheres  
Directive 94/9/EC**

- [3] EC-Type Examination Certificate Number:           Nemko 12ATEX1349X**
- [4] Equipment or Protective System:                    Detection Block GJRA.467749.002**
- [5] Applicant/ Manufacturer:                            COMPLEX-RESOURCE Ltd**
- [6] Address:    199034, 17 Liniya V.O., d. 4-6  
St.Petersburg  
Russian Federation**
- [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] Nemko AS, notified body number 0470 in accordance with Article 9 of 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 no. 225403
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:**
- 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, 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 this certificate.**
- [12] The marking of the equipment or protective system shall include the following:**

**II 2G****Ex d IIB T5 Gb -50°C ≤ Ta ≤ +50°C**

Oslo, 2013-04-04

  
p.p. Asle Kaastad, Certification Manager

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**[13] Schedule****[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 12ATEX1349X****[15] Description of Equipment or Protective System.**

The Detection Block, 'DB' is an electronic device designed for detection of gamma radiation of radioactive nuclide Cs137, digital processing of signals corresponding to recorded radiation and transmission of data processing results via standard interface.

The DB is used as part of radioisotopic apparatus providing separation free noncontact measuring of liquid mass, gas volume and content of oil in the liquid part of product pumped through oil pipe-lines.

The DB consists of a cylindrical aluminium alloy casing with round covers from two sides. Internally two separate volumes separated internally with an Ex d type bushing.

The enclosure is designed with ½ " NPT threaded holes for use with separate cable glands or closing device.

The entry of cable is to be completed by installation by means of a separately certified cable gland.

With the cover removed it is wired to two multi-pole terminals fixed on the switching card.

**Type Designation.**

Detection Block GJRA.467749.002

**Technical Data**

Un: 24V(12-36V), Max 2,5A, Max 27W

Temperature range:  $-50^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$

**Ingress Protection Code**

IP 54 according to EN 60529

**[16] Report No. 225403****Descriptive Documents**

Name/Number	Rev.	Date	Title/Description	Sheet
GRJA. 467749.002D1	1	2013-01-30	Detection Block DB	1
GE0.364.140.TY		2012-11-30	Ex penetrator glass-metal	1
GRJA.467749.002AD	1	2013-01-30	Detection Block DB, assembly drawing	2
GRJA.711322.002	1	2013-01-30	Cover	1
GRJA.710250.002	1	2013-01-30	Casing	1
GRJA.759117.001	1	2013-01-30	Casing	1
GRJA.712452.001	1	2013-01-30	Cover	1
GRJA.467749.002	-	2013-01-30	Bill of material	3-11

**Routine tests.**

Each enclosure shall be subjected to a routine pressure test according to 60079-1 clause 16.1 with at least 15,35bar (10,23bar x 1,5) for at least 10sec.

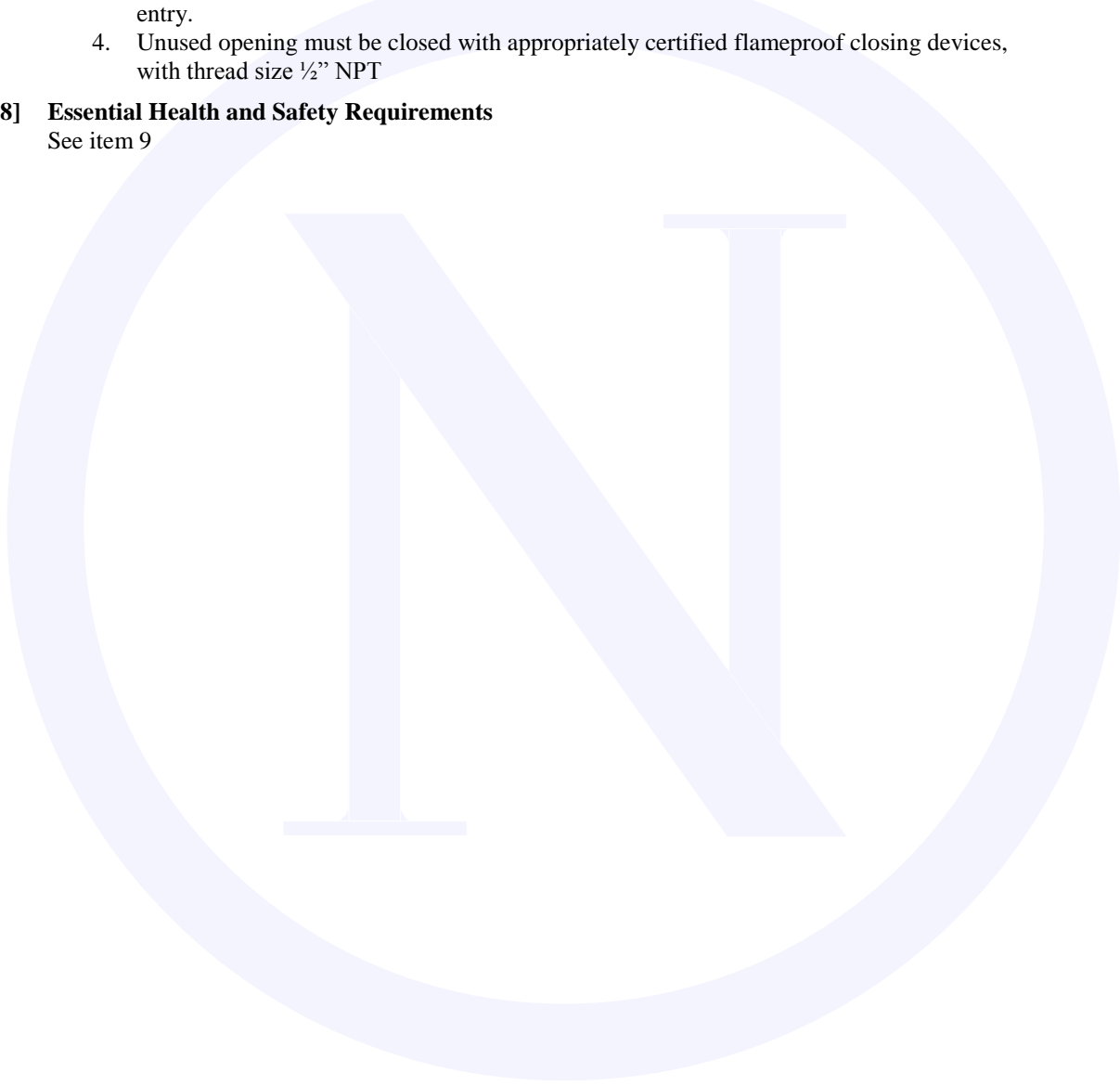
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**[17] Special Conditions for Safe Use**

1. Some dimensions of the flameproof joints differ from the table 1 of EN 60079-1. Refer to the manufacturer's information regarding dimensions of flameproof joints.
2. The screws and nuts for fastening of covers are made of strength class 5.8 or better.
3. Appropriately certified flameproof glands of type 'Ex d', with thread size ½" NPT must be used for the cable entry.
4. Unused opening must be closed with appropriately certified flameproof closing devices, with thread size ½" NPT

**[18] Essential Health and Safety Requirements**

See item 9



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