





Page 1 of 3

## [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 03ATEX1342X Issue 3

[4] Equipment or Protective System: Electric Actuator

[5] Applicant/ Manufacturer: EUNHA MACHINERY IND CO., LTD

[6] Address: 70-1, Chunui-dong, Wonmi-gu, Bucheon-si, Gyeonggi-

do, KOREA

[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. 202077

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

CENELEC EN 60079-0: 2009, CENELEC 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:

 $\langle E_{\mathbf{x}} \rangle$ 

II 2G

Ex d IIB T4 Gb

Oslo, 2012-07-04

Arne Hortman

Certification Manager, Ex-products

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Nemko 03ATEX1342X



Date: 2012-07-04

# [13] Schedule

# [14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX1342X Issue 3

Issue 3

[15]

#### **Description of Equipment or Protective System**

Electric actuators with wheel for manual operation. The actuators are provided with two threaded holes for cable entries (gland or conduit) and an indicating arrow for open or closed position inside the enclosure. This is shown through a window at the top of the enclosure. The actuators can be delivered with position indication unit (PIU) and auxiliary limit switches (ALS).

The Actuators are certified without cable entry devices fitted. Unused openings shall be closed with certified "Ex d" closing devices.

#### **Type Designation**

- 1. NA-006, NA-009
- 2. NA-015, NA-019
- 3. NA-028, NA-038, NA-050
- 4. NA-060, NA-080, NA-100

#### **Technical Data**

NA-006	15W	110/220V AC	1 phase, 220/380/440V AC	3 phase, 24V DC
NA-009	25W	110/220V AC	1 phase, 220/380/440V AC	3 phase, 24V DC
NA-015, NA-019, NA-028	40W	110/220V AC	1 phase, 220/380/440V AC	3 phase, 24V DC
NA-038	60W	110/220V AC	1 phase, 220/380/440V AC	3 phase
NA-050, NA-060	90W	110/220V AC	1 phase, 220/380/440V AC	3 phase
NA-080, NA-100	180W	110/220V AC	1 phase, 220/380/440V AC	3 phase

## **Ambient Temperature**

-20°C to +55°C

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Nemko 03ATEX1342X



Date: 2012-07-04

Issue 3

# [16] Report No. 10034 Descriptive Documents

Title/Description	Rev.	Date	Name/Number	Sheets
NA006, NA009 Partlist	A	2012.05.23	NAPL-005-A	1
NA015, NA019 Partlist	A	2012.05.23	NAPL-010-A	1
NA028, NA038, NA050 Partlist	A	2012.05.23	NAPL-025-A	1
NA060, NA080, NA100 Partlist	A	2012.05.23	NAPL-050-A	1

**Certificate History and Associated Nemko Reports** 

Issue	Date	Report	Description
0	2003-09-03	10034	Prime certificate released
1	2009-05-25	126759	This supplement applies to a change of electrical board to control the electric actuator. Manual operation is also possible. The actuator is provided with two threaded holes for cable entries (gland or conduit) and an indicating arrow for open or closed position inside the enclosure. This is shown through a window at the top of the enclosure. The actuator can be delivered with position indication unit (PIU) and auxiliary limit switches (ALS),Current Position Transmitter (CPT) and Proportional Control Unit (PCU).  The Actuator is certified without any cable entries fitted.
2	2008-05-13	103332	The certificate is extended to include minor changes according to the descriptive documents listed. The changes do not alter the safety characteristics of the equipment
3	2012-06-15	202077	Upgrade to CENELEC EN 60079-0: 2009, CENELEC EN 60079-1: 2007

#### **Routine Test**

Routine test must be performed on every enclosure to ensure that the enclosures withstand the pressure and do not contain holes or cracks. Every sample shall withstand a static pressure of 10,2 bar, lasting between 10 s and 60 s.

# [17] Special Conditions for Safe Use

- 1. Certified cable entries rated for at least 90°C must be used when installed.
- 2. If conduit is used for cable entry, a sealing device such as a stopping box with setting compound must be provided close to the entry.

## [18] Essential Health and Safety Requirements

See item 9

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