

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

according to Directive 94/9/EC, Annex III



(Translation)

- [2] Equipment and Protective System intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC
- [3] EC-Type Examination Certificate Number: **IBExU03ATEX1074 X**
- [4] Equipment: Rotary Drive
Type TA 70
- [5] Manufacturer: TA ROLOFF
Technischer Apparatebau GmbH
- [6] Address: Adlerhorst 5
D-22459 Hamburg
- [7] This equipment and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.
- [8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the test report IB-03-3-256 of 10 June 2003.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 50014:1997 + A1 + A2 and EN 50018:2000.
- [10] If the sign „X“ is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.
- [11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.
- [12] The marking of the equipment called under [4] shall include the following:

II 2G EEx d IIC T6

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Fuchsmühlenweg 7 - D-09599 Freiberg
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Authorised for certifications
-Explosion protection-By order

(Dr. Lösch)



- Seal-
(ID no. 0637)

Freiberg, 10 June 2003

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

[13]

Schedule

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU03ATEX1074 X**

[15] **Description of equipment**

The rotary drive serves for the operation of valves with a max. torque of 32 Nm. It consists of an cover, the floor plate, the electrical fittings and a flameproof cable entry with connection cable.

Parameters

- Drive motor:
 - Rated voltage: max. 48 V DC
 - Nominal current: max. 1,5 A
 - Nominal power: max. 120 W
 - Torque: max. 32 Nm
 - Run time for 90°: max. 11 s
- Microswitch
 - Voltage: 24 V DC
 - Current: 5 A
- Ambient temperature range: -20 °C up to +40 °C

[16] **Test report**

The examination and test results are recorded in the test report IB-03-3-256 of 10 June 2003. The test documents are listed in the annex to the test report.

Summary:

The rotary drive type TA 70 EEx fulfils the requirements of explosion protection for equipment group II and equipment category 2G , type of protection Flameproof enclosure for explosive atmospheres with gases and vapours of the explosion group IIC and temperature class T6.

[17] **Special conditions for safe use**

The connection of the free cable end must be carried out either outside of the potentially explosive atmosphere or in an equipment approved according to EN 50014:1997, section 1.2.

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

Met by compliance of standards (see [9]).

By order

Freiberg, 10 June 2003



(Dr. Lösch)

[1]

1st Addition to

EC-TYPE EXAMINATION CERTIFICATE IBExU03ATEX1074 X
(Translation)



- [2] Equipment: Rotary Drive
Type TA 70
- [3] Manufacturer: TA ROLOFF
Technischer Apparatebau GmbH
- [4] Address: Adlerhorst 5
22459 Hamburg
Germany

[5] **Additions/Modifications**

The flameproof enclosure of the Rotary Drive TA 70 can be manufactured alternatively also of Stainless steel. All other electrical and mechanical parameters are unchanged.

[6] **Test result**

The proof of explosion protection of the aforementioned modification at the Rotary Drive is recorded in the test report IB-04-3-052 of 13 April 2004. The test documents are part of the test report and listed there.

The Rotary Drive type TA 70 fulfils also in future the requirements of explosion protection for Equipment Group II and Category 2G.

The specifications and safety instructions contained in the Schedule to the EC-Type Examination Certificate IBExU03ATEX1074 X are valid in future.

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Freiberg, 13 April 2004

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[1] **2nd Addition to
EC-TYPE EXAMINATION CERTIFICATE IBExU03ATEX1074 X**
(Translation)



- [2] Equipment: Rotary Drive
a) type corresponding to IBExU03ATEX1074 X TA 70
b) added/appende type TA 70-75
- [3] Manufacturer: TA ROLOFF
Technischer Apparatebau GmbH
- [4] Address: Adlerhorst 5
22459 Hamburg
GERMANY

[5] **Additions/Modifications**

The Rotary Drive TA 70 mentioned under [2] a) is completed by the type TA 70-75. This type has a modified electronic and it is suitable for an ambient temperature range from -40 °C up to +40 °C.

[6] **Test report**

The proof of explosion protection of the Addition mentioned under [5] is recorded in the test report IB-05-3-336 of 22 September 2006. The test documents are part of the test report.

[7] **Test result**

IBExU certifies that the equipment mentioned under [2] b) fulfils the Essential Health and Safety Requirements given in Annex II to the Directive 94/9/EC by compliance with EN 50014:1997+A1+A1, EN 50018:2001 and EN 60079-1:2004.

The Rotary Drive type TA 70-75 mentioned under [2] b) fulfils the requirements of explosion protection for equipment of Group II, Category 2G, type of protection Flameproof enclosure.

The marking of the equipment mentioned under [2] b) shall include the following:

 II 2G EEx d IIC T6
T_a -40 °C ... +40 °C

[8] **Special conditions for safe use**

The special conditions contained in the Schedule to the EC-Type Examination Certificate IBExU03ATEX1074 X are completed as follows:


- The Rotary Drive type TA 70-75 can be used in an operating temperature range from -40 °C up to +40 °C. Cable entry and connection cable must be suitable for use in the decreased temperature range.

This Addition is only valid in combination with the EC-Type Examination Certificate IBExU03ATEX1074 X of 10 June 2003.

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Freiberg, 22 September 2006

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(Dr. Lösch)



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An-Institut der TU Bergakademie Freiberg

- [1] **3rd Addition to
EC-TYPE EXAMINATION CERTIFICATE IBExU03ATEX1074 X**
according to Directive 94/9/EC, Annex III
(Translation)



- [2] Equipment: **Rotary Drive**
Type TA 70 and TA 70-75
- [3] Manufacturer: **TA ROLOFF**
Technischer Apparatebau GmbH
- [4] Address: **Adlerhorst 5**
22459 Hamburg
GERMANY

[5] **Additions/Modifications**

The Rotary Drive TA 70 and TA 70-75 mentioned under [2] are corresponded to also the requirements of standards series EN 60079.

[6] **Test report**

The proof of explosion protection of the Addition mentioned under [5] is recorded in the test report IB-09-3-070 of 16 February 2010. The test documents are part of the test report.

[7] **Test result**

IBExU certifies that the equipment mentioned under [2] fulfill the Essential Health and Safety Requirements given in Annex II to the Directive 94/9/EC by compliance with EN 60079-0:2006 and EN 60079-1:2007.

The Rotary Drive type TA 70 and TA 70-75 mentioned under [2] fulfill the requirements of explosion protection for equipment of Group II, Category 2G, type of protection flameproof enclosure.

The marking of the equipment mentioned under [2] shall include the following:

Type TA 70	II 2G Ex d IIC T6
Type TA 70-75	II 2G Ex d IIC T6 T _a -40 °C ... +40 °C

[8] **Special conditions for safe use**

The special conditions contained in the Schedule to the EC-Type Examination Certificate IBExU03ATEX1074 X are completed as follows:

The exist gap dimensions are smaller than pretended in the standard, repairs are exclusive permitted from the manufacturer in accordance with the specifications in the approval drawing.

This Addition is only valid in combination with the EC-Type Examination Certificate IBExU03ATEX1074 X of 10 June 2003 and whose 1st and 2nd addition.

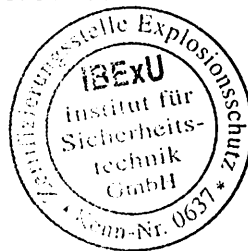
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Freiberg, 16 February 2010

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(Dr. Wagner)



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- [1] **4th Addition to
EC-TYPE EXAMINATION CERTIFICATE IBExU03ATEX1074 X**
according to Directive 94/9/EC, Annex III
(Translation)



- [2] Equipment: **Rotary Drive type TA 70 and TA 70-75**
- [3] Manufacturer: **TA Roloff GmbH**
- [4] Address: **Adlerhorst 5
22459 Hamburg
GERMANY**

[5] **Additions/Modifications**

The following modifications are made on the Rotary Drives mentioned under [2]:

- The Rotary Drives type TA 70 and TA 70-75 may be used also at an increased ambient temperature of +60 °C. Therefore, the nominal power is reduced to max. 30 W.
- The Rotary Drives also fulfil the requirements of EN 60079-0:2012+A11:2013 and EN 60079-1:2014.

All other electrical and technical parameters remain unchanged.

[6] **Test report**

The proof of explosion protection of the Additions mentioned under [5] is recorded in the test report IB-15-3-122 of 23 October 2015. The test documents are part of the test report and listed there.

[7] **Test result**

IBExU certifies that the equipment mentioned under [2] fulfils the Essential Health and Safety Requirements given in Annex II to the Directive 94/9/EC by compliance with EN 60079-0:2012+A11:2013 and EN 60079-1:2014.

The Rotary Drives type TA 70 and TA 70-75 fulfil the requirements of explosion protection for equipment of Group II, Category 2G, type of protection flameproof enclosure „d“ for explosive atmospheres of explosion group IIC and up to temperature class T6.

The marking of the equipment mentioned under [2] shall include the following:

II 2G Ex db IIC T6 Gb

Type TA 70: $T_a -20\text{ °C} \dots +40\text{ °C}$ or $+60\text{ °C}$
Type TA 70-75: $T_a -40\text{ °C} \dots +40\text{ °C}$ or $+60\text{ °C}$

[8] **Special conditions**

The specifications and special conditions contained EC-Type Examination Certificate IBExU03ATEX1074 X including Annex and Additions keep their validity.

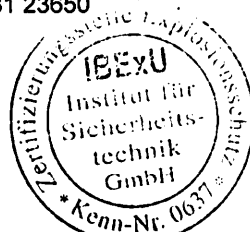
This Addition is only valid in combination with the EC-Type Examination Certificate IBExU03ATEX1074 X of 10 June 2003 with 1st to 3rd Addition.

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(Dipl.-Ing. [FH] Henker)



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(ID no. 0637)

Freiberg, 23 October 2015

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